

Female Bodies and Female Practitioners

Edited by
LENNART LEHMHAUS

*Ancient Cultures of Sciences
and Knowledge*

Mohr Siebeck

Ancient Cultures of Sciences and Knowledge (ASK)

Editors

Markham J. Geller (London/Berlin), Paul J. Kosmin (Cambridge, MA),
Lennart Lehmhaus (Tübingen), Matteo Martelli (Bologna),
Heidi Marx (Winnipeg, MB), Tanja Pommerening (Marburg),
Bernd U. Schipper (Berlin), Sabine Schmidtke (Princeton, NJ)

Advisory Board

Florentina Badalanova-Geller (London/Berlin),
Anthony Cerulli (Madison, WI), Marco Formisano (Ghent),
Ida Fröhlich (Budapest), Brooke Holmes (Princeton, NJ),
Rafael Neis (Ann Arbor, MI), Antonio Panaino (Bologna),
Francesca Rochberg (Berkeley, CA),
Jacqueline Vayntrub (New Haven, CT)



Female Bodies and Female Practitioners

Gynaecology, Women's Bodies, and Expertise
in the Ancient to Medieval Mediterranean
and Middle East

Edited by
Lennart Lehmhaus

Mohr Siebeck

Lennart Lehmhaus is Lecturer/Assistant Professor at the University of Tübingen, Institute of Jewish and Religious Studies.

An electronic version of this book is freely available, thanks to the support of libraries working with Knowledge Unlatched. KU is a collaborative initiative designed to make high quality books Open Access for the public good. More information about the initiative can be found at www.knowledgeunlatched.org

ISBN 978-3-16-162290-8 / eISBN 978-3-16-162291-5

DOI 10.1628/978-3-16-162291-5

ISSN 2752-1850 / eISSN 2752-1869 (Ancient Cultures of Sciences and Knowledge)

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliographie; detailed bibliographic data are available at <http://dnb.dnb.de>.

© 2023 by the authors of the artikels published by www.mohrsiebeck.com

This work is licensed under CC BY-SA 4.0. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/>

The book was typeset by eplene using Minion typeface, printed by and bound by Gulde-Druck in Tübingen using non-aging paper.

Printed in Germany.

Table of Contents

<i>Philip van der Eijk</i> Dedication C.F. Salazar	VIII

<i>Lennart Lehmhaus</i> Acknowledgments	XI

I. Conceived Conceptions and Conceptual Controversies

<i>Lennart Lehmhaus</i> Re-reading Gynaecology in the Ancient World – a Transcultural and Interdisciplinary Survey	3

<i>Lennart Lehmhaus</i> Female Bodies, Gynaecology, and Women's Medical Knowledge and Practice in Ancient Cultures – a Select Bibliography	85

II. To Cultivate a Field – Thinking about Women's Bodies in Different Traditions

<i>Tanja Pommerening</i> The Female Body in Ancient Egypt: Sources, Terminology, and Concepts ..	133

<i>Siam Bhayro</i> Gynaecology in Syriac Sources: Theory and Practice	175

<i>Carmen Caballero Navas</i> Greco-Latin Gynecology in Jewish Robes: The Hebrew Translation of Muscio's Gynaecia	193

III. Theorizing Sex, Sexuality and the Female Body

Ulrike Steinert

- Created to Bleed: Blood, Women's Bodies, and Gender
in Ancient Mesopotamian Medicine 233

Marzia Soardi

- Some Aspects of Aristotle's Gynaecological Considerations 307

Shanah Strauch Schick

- Do Women Emit Seed? Theories of Embryogenesis and the Regulation
of Female Masturbation in Rabbinic Literature 323

Tirzah Meacham

- Pregnancy of Minor Girls, Superfetation, and Pregnancy
during Lactation in Rabbinic Literature 347

IV. Silenced Voices and Objectified Bodies – Women as Practitioners and Practices Applied to Women's Bodies

Monika Amsler

- Goats or Babies?! The Teachings by Abaye's Mother b. Šabbat 134a
and the Relationship between Veterinary and Human Medicine
in the Talmud 399

Tal Ilan

- Salome's Medicinal Recipes and Jewish Women Doctors in Antiquity 421

Samuel Kottek

- Caesarean Section in the Talmud:
A Renewed Examination of a Historical Enigma 435

Irene Calà

- A Short Remark on the Sixteenth Book of Aetius Amidenus's
Libri medicinales: The Case of the Clitoridectomy 449

Julia Kelto Lillis

- Late Ancient Christians and the Rise of Medically Perceptible Virginity 463

Table of Contents

VII

Contributors	491
Index Locorum	497
Index Rerum	515
Index of Names	523

In memory of
Christine F. Salazar
(1952–2021)



Bildquelle: Erika Borbély Hansen

This volume is dedicated to the memory of Christine Salazar, who was a Research Associate on the project from which it has arisen. Christine was involved in the organization of the conference and in the preparation of the book for publication. We are very sad that she did not live to see it in print.

Christine Salazar was born in Vienna, where she studied Ancient History and Italian, and she held a PhD in Classics from the University of Cambridge (1991), where for several years she taught History of Ancient Medicine at the Department for the History and Philosophy of Science. She also worked as a copy-editor and translator for Cambridge University Press and for Brill, where she oversaw the production of the English version of *Der Neue Pauly*. From 2007 to 2011, she held a grant from the Oesterreichische Nationalbank Jubiläumsfonds for the project ‘Early Byzantine Medicine – A Sourcebook’. From January 2010 until December 2014, she was a Research Associate on the project ‘Towards a Galen in English’ at Newcastle University; and from July 2012 onwards, she held a position at the Humboldt-Universität zu Berlin within the Collaborative Research Center ‘Episteme in Motion’, where she was Research Associate on the project ‘The Transfer of Medical Knowledge in the Encyclopaedic Compilations of Late Antiquity’.

Christine was particularly interested in the practical aspects of ancient medicine and in the relationship between medicine and the military. Her monograph *The Treatment of War Wounds in Graeco-Roman Antiquity* (Leiden: Brill, 2000) is widely regarded as a major contribution to the history of surgery. She also published on the history of medical care in late antiquity and Byzantium, with a particular interest in Paul of Aegina. She was a meticulous scholar, a brilliant linguist commanding a large variety of languages (including Japanese, Chinese and Russian) and a gifted and experienced translator of academic texts. She was a very modest and lovely person and an extraordinarily loyal colleague and friend.

Christine Salazar passed away on 20 October 2021 in the Havelhöhe Krankenhaus in Berlin after a period of illness. Her death came as a shock to many, and she is dearly missed. She left two nearly finished manuscripts, on which she had been working until the very end: scholarly translations (with introduction, notes and glossaries) of Galen’s commentary on Hippocrates’ *Prognostic* for the Cambridge Galen Translations, and of Book II of Aetius of Amida’s *Books on Medicine* for the Corpus Medicorum Graecorum. We are in the process of preparing these manuscripts for posthumous publication.

Philip van der Eijk (Humboldt Universität zu Berlin)

Acknowledgments

This double-blind peer-reviewed volume is the long-ripened fruit of scholarly efforts that began to take root during a conference in Berlin in 2014. As part of the research team A03 “The Transfer of Medical Episteme in the ‘Encyclopaedic’ Compilations of Late Antiquity”, I had the pleasure to co-organize, with my colleagues Matteo Martelli and Christine F. Salazar (of blessed memory), the conference “Gynäkologie, Frauenheilkunde und heilkundige Frauen in medizinischen Diskursen und medizinischer Praxis der Spätantike” from 27 to 29 October 2014. This event, co-hosted by the Freie Universität Berlin and the Humboldt Universität zu Berlin, was made possible by the Collaborative Research Center, SFB 980 “Episteme in Bewegung” funded by the German Research Council (DFG). I would like to thank its director, Gyburg Uhlmann, and all past and present board members for their generous financial and non-material support. As the editor, and on behalf of the whole research team, I am especially indebted to Kristiane Hasselmann, the academic coordinator of the SFB 980, and Agnes Klooce, A03 and *BabMed* (ERC) coordinator, who both helped with the actual conference and facilitated the funding for the work on the present volume.

Back in 2014, this meeting of an international group of scholars from various fields created lively and controversial discussions on the topic of women and/in medicine and beyond. Therefore, first of all, I have to thank those speakers and participants who due to already existing plans for publications, other commitments or simply due to unfortunate circumstances were not able to contribute their articles to this volume: Charlotte Fonrobert, Matteo Martelli, Caroline Musgrove, Sean Coughlin, Giulia Ecce, Rebecca Flemming, Petros Bouras-Vallianatos, and Hannah Tzuberi.

The conference benefitted much from the unique context in Berlin as a hub for the academic and public interest in the premodern history of knowledge, science, and medicine. Consequently, many participating colleagues who were based in Berlin or happened to be visiting as fellows in various institutions, such as the before mentioned CRC/SFB 980 “Episteme”, the Research Center (Cluster of Excellence) “TOPOI – The Formation and Transformation of Space and Knowledge in Ancient Civilizations”, The ERC-funded project *BabMed* (M. J. Geller), the Institute of Classical Philology and Ancient Science (Humboldt University), the Institute of Jewish Studies (FU Berlin), and the *Berliner Antike Kolleg* (BAK) contributed profoundly to the discussions in many ways. As the organizers, we were

especially indebted to Heinrich von Staden (IAS, Princeton), then a TOPOI fellow, who introduced the key note and public evening lecture by Charlotte Fonrobert “Talmudic Gynecology and its Relationship to Late Antique Medical Literature: Transfigurations of ‘Women’s Affairs’ (*Gynaikeia*)” and served as an attentive interlocutor throughout the conference. Also Gerrit Bos (Cologne/Haarlem), another TOPOI-fellow in 2014, enriched our discussion with his expertise in medicine in medieval Jewish and Arabic texts and contexts.

Since this initial event some time has passed for which one may give various reasons beyond the recent pandemic turmoil. First, the conference was conceived as a broad interdisciplinary endeavor of re-reading and scrutinizing women’s medicine and the role of women in medicine within and across various ancient cultures. Unfortunately, precisely this transcultural and interdisciplinary approach was held against the project when we approached publishers and pertinent series in the field. Luckily, after a dormant period, we could find a new home for this book in the newly founded series “Ancient Cultures of Sciences and Knowledge (ASK)” with Mohr Siebeck which focuses precisely on the transcultural entanglements in the history of knowledge and nurtures interdisciplinary studies and new approaches to respective subjects. Accordingly, I owe my gratitude to Henning Ziebritzki who welcomed this initiative and took the risk to start this new series as well as to Katharina Gutekunst, Elena Müller, and Tobias Stäbler, the past and current program directors overseeing the ASK series.

Moreover, this longer ripening process of the book opened up unexpected possibilities for broadening the scope of the book even further. Along the way, through new encounters and connections, especially during my research fellowships at Harvard University and The Katz Center for Judaic Studies (University of Pennsylvania), new articles on Jewish Babylonian contexts and early Christian traditions supplemented the existing collection.

This book project would have been unthinkable without the constant support and encouragement of the two directors of the research group A03 at the CRC/SFB 980 “Episteme in Motion”, namely Mark Geller and Philip van der Eijk, both of whom I owe special thanks. Christine Salazar, whose sudden illness and death in late 2021 came as a shock to her many friends and colleagues, has helped shaping this volume in its inception (proposals, concepts) and at later stages (proof reading and reviewing some of the contributions on Greek texts) – especially with her keen eye and constructive judgment shaped by her work as a professional copy editor at Cambridge University Press. Ricarda Gäbel who joined our A03 research team in Berlin from 2017 to 2020, deserves special mentioning, since we developed together the structure of the introductory survey and Ricarda aptly contributed some substantial drafts discussing the content of Greek medical texts which I elaborated upon in my final article. The same praise applies to Ulrike Steinert (Mainz), former member of the ERC-project *BabMed* at FU Berlin, who despite her many other responsibilities wrote or supplemented some of the sections

on ancient Mesopotamian sources in this introduction. Moreover, I thank Tanja Pommerening whom I consulted regarding the passages on ancient Egypt in my introduction. Finally, my utter gratitude goes to Sean Coughlin (Prague, *Alchemies of Scent*), who as a colleague, formerly working with Philip van der Eijk's research group at HU Berlin, has dedicated his precious time to copy editing this introduction-cum-bibliography and unified the quotations of and references to all Greek and Latin texts mentioned therein.

The aim of both the conference and the present volume has been to facilitate the exchange within and between various scholarly fields that research the many different (medical) cultures from ancient to medieval time. This is, and has to be, a constant effort and truly a work-in-progress, in the most affirmative sense of this term. I am positively convinced that the contributions in this book will serve as trailblazing studies or, to put it more modestly, door openers for a rich and more comprehensive exchange on these subjects and other areas of premodern medicine, healthcare, and body studies – not only between their authors but far beyond this initial group – serving as an impulse for many more future studies.

I. Conceived Conceptions and Conceptual Controversies

Re-reading Gynaecology in the Ancient World

A Transcultural and Interdisciplinary Survey*

LENNART LEHMHAUS

In recent years, scholarly interest in the field of ancient history of medicine and science has shifted away from the search for “pure” medical information and, in the wake of the cultural, body and gender studies approaches, has turned towards a more comprehensive understanding of illness, health, and healing in various ancient traditions as inextricably bound to its diverse religious, cultural, socio-political and textual backgrounds. Many studies now focused more on a comparison and contextualization of medical discourses within and across neighboring cultures in the ancient Mediterranean and Near East. Consequently, medical ideas, especially regarding anatomy, physiology and sexuality, form a part of the broader Graeco-Roman and Ancient Near Eastern traditions that shaped different constructions of male and female bodies or definitions of sex and gender.

The present volume is inspired by these broader trends and aims at contributing to the scholarship and lively academic discourse from the perspective of ancient medicine and the history of knowledge. Taking a truly interdisciplinary approach to the field of ancient medicine, this book brings together scholars who work on ancient Egypt and Mesopotamia, on Graeco-Roman traditions from Ar-

* This introductory essay is broad in its scope and touches upon various topics not usually subsumed under the common roof of “gynaecology”. It is also an attempt to write a transcultural and interdisciplinary survey of the topic at hand including hints at the development of and different positions or approaches within the various disciplines. This intellectual endeavor which created many opportunities for me to learn and broaden my horizon would have not been possible without the assistance of some cherished colleagues. First and foremost, I would like to express my utter gratitude to my former colleague Ricarda Gäbel whose first draft of some passages concerning Greek (and Latin) medical texts served as the basis for my later elaborations and supplementary references to pertaining scholarship. Furthermore, I am greatly indebted to Ulrike Steinert whose much welcome additions and references with regard to ancient Mesopotamian traditions have helped to substantially improve the comparative perspective of this essay. I referenced Ricarda Gäbel’s and Ulrike Steinert’s respective contributions in the notes to the relevant sections.

I owe special thanks to Sean Coughlin (Prague) who helped with a final native speaker copy-editing of this introductory essay and attended to the unification of titles and references to the Greek and Latin works mentioned therein. Finally, I am grateful to Tanja Pommerening who read my sections on ancient Egypt and provided some additional references.

istotle to late antique medical compilations, on Jewish culture between biblical sources and medieval texts as well as on Syriac text and early Christian traditions.

The contributions to this volume address various dimensions of female physiology, gynecological issues, and female expertise in different formats. The contributions range from broader surveys of the topic in a specific culture or tradition (Pommerening, Steinert, Bhayro) and synchronic or diachronic surveys of relevant aspects or sources (Caballero Navas, Meacham, Lillis, Strauch Schick, Amsler) to focused case-studies of specific authors, texts or topics (Calà, Kottek, Soardi, Ilan). The studies merge philological and textual or literary approaches with interest in historical background and a socio-cultural framing of the sources, often combined with a decidedly comparative and transcultural perspective.

1. Between Sex and Gender: Becoming and Defining Male and Female in the Premodern Mediterranean

The cultural turn in the Humanities brought with it also a scholarly corporeal turn. In its wake, historians and philologists became increasingly interested in concepts and representations of the body in and across various ancient cultures, be it in texts or in images (paintings, figurines, sculptures etc.). Those sources and artefacts were interpreted as powerful discursive devices for the social, cultural, and religious construction of female and male bodies.¹ Besides various methods from cultural history and religious studies, pertinent studies deployed approaches using feminist theory and gender studies, which analyzed the body discourse as a vibrant arena for inner-cultural and cross-cultural exchange, negotiation and conflict. Different concepts of human bodies, the sexes, and gender impacted on how various cultural traditions viewed sexuality, procreation, and the role of men and women therein. Of specific interest for scholars have been the social hierarchies of this discourse and the discursive and physical power that was forced on and dominated specifically women, besides children and slaves, in ancient cultures. The performance of social roles and the stabilization of conceptions of sex and gender has been understood as an apt tool to control individual and collective bodies (e. g., family, household, community, congregation).²

¹ Cf. Porter 1999; Stewart 1997, Brown 1997; Kolowski-Ostrow and Lyons 1997; DeForest 1993; Rabinowitz and Richlin 1993; Lefkowitz and Fant 1982; Fantham et al. 1994; Germanidou 2022. For biblical anthropology and concepts of the body in the Ancient Near East (Egypt/Mesopotamia), see Schroer and Staubli 2001 (esp. II.3 “God in the Belly”, 68–82); and the contributions in Berlejung, Dietrich and Quack 2012. For later developments in Jewish tradition, see Eilberg-Schwartz 1992.

² See Svärd and Garcia-Ventura 2018; Budin, et al 2018; Wyke 1998; Clark 1993; Zeitlin, 1995; Nikolaidis 1997; Montserrat 1963; Dixon 1990; Cantarella 1987; McClure 2002 and 2020; Clarke 2001; Nussbaum and Sihvola 2002; Johnson and Ryan 2005; Ormand 2009; Skinner 2013; Hub-

In many instances, such control was inextricably bound to culture-specific ancient discourse about a “female nature”, or women’s anatomy and physiology. Whereas earlier scholarship in the history of ancient cultures and medicine often sought to establish correspondences between modern biological and gynaecological knowledge and ancient sources, more recent studies changed course to explore the ancient ideas for their own sake in their broader epistemic, cultural, and religious embeddedness. This included philological analysis as well as the synchronic and diachronic comparison of central terminology, appendant concepts, and their representation in varying but often correlating metaphors and images.

In ancient Egyptian and Mesopotamian traditions, one finds a tendency to consider the male body as the “default setup” or paradigm for medical and other discussion about the human body, including its structure and its functions. Still, many traditions display a heightened awareness of the specifics of the female body to be discussed in a section below.³ According to several Egyptian mythological texts, male and female (deities) were created by a father-god (Atum, Re) through an act of masturbation. In some sources, this includes the self-masturbation with a handmade (clay) vagina.⁴

In Mesopotamian mythology, the first divine cosmic entities engendering aspects of the universe are either female (e.g., Namma, the primordial waters, “Mother of Everything”, a “self-procreating womb”) or complementary elements representing a male-female couple as foundational entities (e.g., the oceans Apsû and Tiamat, or Heaven and Earth), while the first human beings are usually created by male gods (e.g., Enlil, Marduk) or through cooperation of a divine couple, as in the Sumerian myth *Enki and Ninmah* and the Akkadian *Atramḫasīs Myth*, where a mother goddess, together with female assistants called “wombs”, cooperates with

bard 2013; Wilkinson 2015; Mulder-Bakker and Wogan-Browne 2005; Pedrucci and Pasche-Guignard 2017; Centlivres Challet 2022. For source texts, see MacLachlan 2012 and 2013. On Graeco-Roman and early Christian attitudes to female homosexuality, see Hallett 1989; Rabinowitz and Auanger 2002; Brooten 1996. For the rabbinic discourse on body, gender and sexuality, see Boyarin 1993; and the discussion of his impact in Seidman 1994, Fonrobert 2005, Rosen-Zvi 2013. and Kirshenblatt-Gimblett 2005. More general on sexuality, see Satlow 1995; and on the cultural, religious and social status of women in Jewish (biblical, Qumranic, and rabbinic) traditions, see Baker 2002; Sassoon 2011. For the sociocultural and religious implications of marriage and motherhood in early Christian traditions, see Solevag 2013.

³ For the male body as the normative body in Mesopotamian medical texts, cf. Heefsel 2006. At the same time, Mesopotamian healers recognized both similarities and differences between male and female bodies, acknowledging the specific female reproductive roles and bodily processes links to it, the existence of medical problems reserved to the female body and the needs for gender-specific, context-dependent treatments for women’s health problems, which is reflected in a sub-corpus of medical texts solely concerned with the female body and the specific practices encountered therein (see Couto-Ferreira 2018c; Steinert 2020a and *infra*).

⁴ See Pommerening 2023 (in this volume) 146–147 and 151–152. For instance, the divine masturbation of Re creates the gods Shu and Tefnut who are in other texts associated with the male penis and the female vulva-vagina complex as well as with air (male) and moisture (female).

the god Enki/Ea.⁵ The *Atramḫasis Myth* features the most complex description of anthropogony, differentiating between the creation of a human “prototype”, followed by the creation of male and female humans and the installation of the cultural and ritual practices revolving around reproduction and birth.⁶

In one of the biblical creation accounts (Genesis 2), the first woman is formed from the bodily material of the first man (from his ribs and his flesh) while he is in deep slumber. While this sequence might appear as suggesting an ontological female inferiority, the Bible and later Jewish traditions stress that the solitary male human is incomplete without Eve, the first woman.⁷ This sense of (hierarchically structured) partnership between men and women is to be found in the Jewish idea that “for this reason a man will leave his father and mother and be united to his wife, and they will become one flesh.” (Gen 2:24) and in several ideas about active female participation in conception and gestation, as will be shown in the following.⁸

For Greek antiquity and most of the later development in Western cultures, Thomas Laqueur offered a narrative that has shaped the scholarly discourse for the last three decades. In his view, the idea of a one-sex model prevailed in antiquity and premodern times. This concept understands men and women as equipped with the same body, which is only marked as different by bodily heat (men) or coldness (women) and by the outward or introversive anatomy of the genitals. Consequently, women would be perceived basically as deficient males. However, Laqueur’s arguments have been partially and fundamentally challenged, since scholars demonstrated that the opinions on sexual differences in ancient and premodern time were much more diverse and dynamic.⁹

Although he is sometimes credited with ideas of gender-equality, in Plato’s view there is an essential difference between the (moral) nature of men and women, which makes the latter inferior in several aspects. Aristotle suggested in his biology of the human animal a natural, i. e., biological female inferiority that makes them subject to male domination/rule, since women are more compas-

⁵ See e. g., Leick 1994, 11–20; Lambert 2013; George 2016; Steinert 2012b, 47–57. For the phallic aspects of the creative god Enki focusing on male semen as procreative substance, see Leick 1994, 21–29.

⁶ See e. g., Lambert and Millard 1969, 55–65; Stol 2000a, 109–119 and Steinert 2023 (in this volume). I thank Ulrike Steinert for this paragraph.

⁷ See Richler 2015 vs. Eskenazi 2015.

⁸ See Noort 2000; DeVun 2018; Brettler 2014. For a survey of the biblical creation narratives in Jewish and Christian traditions, see Luttkhuizen 2000; Weissenrieder and Dolle 2019, 455–459 and 480–489.

⁹ See Laqueur 1990. For a substantial critique and most recent revision of his thesis, see King 2013a. Pinault 1993 suggests that ancient Greek medical writers felt at times uneasy with the opposites of hard/muscular and hot male bodies and the softness or fleshiness paired with moist in women, since physiologically fleshiness or fatness constituted a major impairment to the central female role of being fertile.

sionate, driven by their impulses and tend to deceive.¹⁰ However, in Greek medical texts earlier than Aristotle, such as *Diseases of Women* (8.10–406 L.), one finds a model of sexual differences that clearly distinguished two sexes and saw their bodies and ailments sometimes even as dichotomous.¹¹ Galen's theories which shaped medical views for centuries were rather complex and, while displaying a medical penchant for two distinct bodies/sexes, still reiterated the idea of clear female inferiority.¹²

Repercussions of these assumptions can be noticed in various traditions throughout late antiquity and remained strong discursive concepts well into the medieval period and beyond. For instance, the Hebrew gynaecological text by *Do'eg the Edomite* legitimizes this work on female anatomy and physiology as an appropriation by male experts. According to Carmen Caballero Navas, the author of this work deploys three entangled aspects that recall Greek and Roman strategies of policing female bodies: the notion of “female bodies as weak and prone to disease, women's modesty and shame, and the role of the father as an expert on women's conditions”.¹³

2. Containers, Rivers, and Fields – Gynaecological Concepts, Imageries, and Metaphors of Female Anatomy and Physiology

Ancient cultures conceptualized the female body through different, culture-specific imageries and metaphors. Still one can observe interesting conceptual overlaps across these traditions. All of them share a striking focus on the breasts and the genitals, as the body parts connected to conceiving and nursing a child, which points to the importance of motherhood and reproduction as the backdrop for such ideas that shaped and defined female identity. In antiquity, female reproductive body parts, especially the vagina and the womb, were cross-culturally conceptualized deploying imageries of containers, vessels and confined spaces (houses), as will be exemplified in this section.¹⁴ This involves complex and dynamic concepts that play out between the (mainly male made) images and cultural representations and the realm of female experience and practices “on the ground”.¹⁵ The

¹⁰ See Mayhew 2004; Horowitz 1966, Lange 1983; Sissa 1983; Kosman 2010; Pagnotta 2022; Soardi 2018; Connell 2016, 265–291; Gelber 2019.

¹¹ See Hanson 1992b; King 2013a; Dean-Jones 2018, 251–252.

¹² See Flemming 2018.

¹³ Caballero Navas 2023 (in this volume) 218; see the whole discussion *ibid.*, 193–230.

¹⁴ For transcultural studies of female reproductive organs, specifically the uterus/womb, see Couto-Ferreira and Verderame 2018; and Guyvarc'h and Mehl 2022. For a survey of the diachronic history of pregnancy, childbirth, and midwifery, see Filipini 2020.

¹⁵ For comparative studies of ancient ideas about womanhood and motherhood, see Cameron and Kuhrt 1983; Cooper and Phelan 2017; Hackworth Petersen and Salzman-Mitchell 2012;

reproductive function of female bodies, spaces and fertility in general, is in Egyptian, Mesopotamian and Graeco-Roman traditions the sphere of specific deities, especially goddesses. In biblical and rabbinic traditions, this function is exclusively performed by the God of Israel who is asked for help in matters of reproduction and, consequently, seen as the one who “opens and closes” the womb.¹⁶ Later Jewish and Christian traditions developed ideas about the wisdom of the womb and deployed other metaphors and metonomies in the area of the female body, procreation and gestation for their largely religious discourse.¹⁷

Ancient Egyptian texts develop the complex idea of the uterine complex which is not completely identical with the uterus and/or the vagina. In medical texts, the aspect of the “organ of femininity” might be the exact meaning for *i d.t* derived from terms for mother animals (mostly cows, donkeys), where it designates the “reproductive female”. The *kA.t* as a term for the vulva and vagina represents the female counterpart to the male phallus. Another term for the vulva-vagina complex *šd* plays with the imagery of a “lipped container” or “mortar” that functions together with the “pestle” of the phallus. Such everyday metaphors from the realm of craft or cooking were also evident in the imagery of the women as a container: the womb or the female reproductive organs (*kA.t*) figure as a jar or vessel, while the “vessel” is also understood as the symbol of a mother goddess and a container in which the gods created model humans.¹⁸ Of special importance for transcultural comparison, is the idea “that in the inner part of the *i d.t* living beings can reside” which combines the image of the container with the architectural space of a house.¹⁹

Healing texts and other literary sources from ancient Mesopotamia attest to a similar set of imageries and metaphors of the female reproductive body, which serve as models to conceptualize women’s reproductive processes.²⁰ In Mesopotamia, the female body/sex was “essentially defined by the vulva and the womb”, while breasts were apparently “not conceived of as primary distinction between the sexes”.²¹ The breasts are emphasized in visual representations of nude and

Budin 2011; Budin and Turfa 2016; Peskowitz 1997, Baker 2002; Berquist 2002; Dixon 1990; Du-Bois 1991 (on metaphorical objectification of women in ancient Greek culture); Sharrock and Keith 2020; Pedrucci 2020b; Marshall 2015 (ancient Egypt); Constantinou and Skouroumouni-Stavrinou (forthcoming). For later approaches in the medieval Middle East, see Verskin 2020.

¹⁶ See e. g., Gen 30:1–2; 1 Sam 1:10–13; Hiob 3:10. Cf. Schroer and Staubli 2001, 72–82; Grohmann 2007; De-Whyte 2018. Cf. Verskin 2020; Hölbl 2022; Kanta and Betancourt 2022.

¹⁷ On Jewish and early Christian deployment of such imagery, see Flannery 2012; Iricinschi 2013; Gribetz 2017; Buell 1999, esp. 21–68. For ancient sources of the container image, see Weissenrieder and Dolle 2019, 508–509.

¹⁸ See Pommerening 2023 (in this volume), 141–152; Manniche 2006; Frandsen 2007; Spieser 2018.

¹⁹ See Pommerening 2023 (in this volume,) 141 (“Oh you ... in the broad judgement hall, lords of the south and north sanctuary”). Cf. Audouit 2022.

²⁰ Couto-Ferreira 2013, 2014, 2017, 2018a, 2018b; Steinert 2013, 2016, 2017a.

²¹ Asher-Greve 1997, 438.

breastfeeding females, but cuneiform textual sources including healing texts place much more emphasis on the vulva and womb than on the breasts. The appearance and physical features of women's breasts were observed in diagnostic and physiognomic texts for the purpose of making predictions about a woman's reproductive capacities, about the sex of a pregnant woman's fetus, or about the wellbeing of the expecting mother and her child. However, no therapeutic texts dealing with ailments affecting the female breasts are yet attested within the women's health care texts from Mesopotamia – an absence that is unexpected and perhaps related to the fragmentary nature of the sources, or to specializations of health care professionals, where such issues fell into the domain of midwives (rather than male healers).²²

These metaphors are encountered at the level of Akkadian and Sumerian body-part terms as well as on a textual and text-hermeneutical level (e. g., in commentaries explaining the terminology of healing texts). Thus, we find interrelated metaphors of the womb as a container, which is instantiated in imagery comparing the womb to vessels (e. g., waterskin, brewing vessels), or to an architectural space (e. g., house, oven, cow pen). Moreover, the female body is compared to landscapes, especially agricultural ones (e. g., field, meadow, garden, river). These metaphors allude to an often vague but experience-near understanding of female anatomy/physiology, which may have been influenced by knowledge about the anatomy of domestic animals.²³ They are connected to more complex models of women's bodily processes – relating to (in)fertility, conception, pregnancy, delivery, bleeding and other bodily discharges – that draw on processes in the environment and on cultural practices linked to agriculture and craft production (e. g., pottery, brewing, textile industry). Although these models and metaphors are used in context-specific ways in women's healthcare texts, other medical cuneiform texts (especially incantations) apply similar metaphors to conceptualize processes in the male body or non-gender-specific pathologies, e. g., digestive disorders. Thus, processes in the environment are drawn on by way of analogy to make sense of both normal and pathological processes in the human body, but these metaphors also guide the choice of therapeutic strategies.²⁴ The application of technological models is based on an interventionist logic that bodily processes can be regulated, influenced or acted upon just as the environment is acted upon through cultural practices and technologies. In connection with women's fertility and reproductive processes, particularly the use of agricultural metaphors in medical (and other) texts also reflects underlying concerns about “cultivating” female

²² Scurlock and Andersen 2005, 669–670; Minen 2018, 173; 2020, 11–15.

²³ See Steinert 2017b for a discussion of hints to the idea of a double-chambered cow's uterus serving as a model for women's reproductive system. For possible parallels in rabbinic texts and their knowledge and use of animal anatomy and physiology often expressed in analogies, see Amsler 20223 (in this volume 399–419).

²⁴ See Steinert and Vacín 2018; Steinert 2020a.

bodies in order to make them “productive”.²⁵ Ancient and late antique Egyptian (Demotic) texts on prognoses of pregnancy lively illustrate the connection between female fertility and the growth of produce. The women are advised to urinate on grains or a specific plant. If the plants remain alive the woman will be pregnant, if they wither no pregnancy is prognosticated.²⁶

Ideas about the female body as a field to be cultivated by the male sower or plough-man shaped also biblical, later Jewish, Graeco-Roman and Middle Eastern ideas about sexuality and conception. In addition, various texts draw an analogy between women and their womb and an oven (*kaminos*), a hearth (*hestia*) and a baking-oven (*klibanos*).²⁷ Besides the idea of sowing and baking, Greek tradition connects the womb with the elementary or agricultural imagery of moisture or water and also with rivers and channels that guarantee for fluidity, i. e., the right functioning of the female physiology and its bodily fluids.²⁸ As in other ancient cultures, the imagery of the container or vessel prevailed in Graeco-Roman gynaecological discourse. Hanson states that the “Hippocratics saw the uterus as an up-turned jar, with its bottom on top and its mouth at the bottom turned in a downward direction. The uterine mouth in the mature woman learned to purse its lips and close, when its contents were to be retained, but to open the lips again at the proper time in order to release what was within.”²⁹ In addition, one finds analogies with cupping instruments, wineskins, jars, or vases, both in some early Greek medical (‘Hippocratic’)³⁰ texts as well as in material objects.³¹

Likewise, Near Eastern imagery, the Bible and rabbinic texts feature various metaphors of containers for the body, especially for women’s bodies and their re-

²⁵ Steinert 2017a; Couto-Ferreira 2017, 2018a; Leick 1994, 21–54; Simkins 2014; Budin 2015; Stol 2000a, 4–6. I am indebted to Ulrike Steinert for providing this information. On biblical (positive and negative) conceptions of (in)fertility, see Grohmann 2007, 151–304.

²⁶ See Hoffmann 2021, who also mentions the use of the specific plant (Great Hapi/Nile) for stopping a flow of blood, another common ailment linked to female infertility.

²⁷ For the different metaphors, see the Hippocratic *Generation/Nature of the Child* 4 (7.474–6 L.), 12 (7.486 L.), 22 (7.514 L.), 30 (7.536 L.), as well as Aristotle, *On the Generation of Animals* 764a12–20.

²⁸ See Dean-Jones 1994, 45–46 (moisture); DuBois 1988, 47 f., 57 f., 65 f., 86 f., 130–133 (on agricultural and other metaphors); Totelin 2020c (on rivers, channels, female fluidity). On uterine amulets, see Hanson 1995b; Tasatsou 2019.

²⁹ Hanson 2007, 48. See also Sissa 2013, 90, 94, and 96. Cf. sources such as Hippocrates, *Aphorisms* 5.51 (4.550 L.); *On Generation*, 5 (7.476 L.); Aristotle, *History of Animals* 7.3, 583b29; Galen, *On the Usefulness of the Parts*, 14.3 (146 K.).

³⁰ In line with recent research in the field of ancient Greek medicine and the textual and philological studies of relevant texts, I use throughout this essay the descriptor “early Greek medical texts” instead of the sometimes misleading “Hippocratic texts”. For the pertinent scholarly debate, see van der Eijk 2016. I thank Sean Coughlin for bringing this issue to my attention.

³¹ See Flemming 2017, esp. 126–128. More general on knowledge about female anatomy, see Reilly 1997; Scarborough 1992; Schubert and Huttner 1999, 76–97; Bodiou 2022.

productive organs.³² One passage in the Babylonian Talmud (b. Berakhot 61a) expounds a biblical verse as follows:

What is meant by the words *And the Lord built the rib* (Gen 2:22)? R. Chisda said (some say, it was taught in a *Baraita*): 'It teaches that [God] built (variant MS Paris 671: created) the [first] woman/Eve as a storehouse. Just as a storehouse is narrow at the top and broad at the bottom so as to hold the produce [safely], so a woman is narrower above and broader below so as to hold the embryo.

This analogy emphasizes, as regarding other anatomical features, the divine smart-design of the female body in accordance with its principal function (i. e., reproduction).

A second important Talmudic imagery, similar to the above-mentioned Egyptian concepts, focuses on analogies between female genitalia and a house. Accordingly, Mishnah Niddah 2:5 presents the layout of the female womb:

The Sages analogized women through a parable: a chamber (*heder*/חדר), a corridor (*prozdor*/פרוזדור), and an upper chamber (*aliyah*/עליה). The blood of the chamber is impure. If [blood is] found in the corridor, its uncertainty is impure (i. e., there is an uncertainty regarding its origin, and it is thereby impure), because it is presumed to have come from the source (*ha-maqor*/המקור, cf. Lev. 20:18).

Later teachings in the two Talmudic traditions specified the actual layout of the inner female house and added some minor details (positions and some passageway). Also, various other Talmudic statements deploy concepts of female corporeal domesticity in connection to their genitalia and reproductive function.³³

Cynthia Baker has argued that the metaphor or metonymy and concept of the house is deeply gendered in Jewish traditions. She shows how this imagery defines the house and the household primarily as a female space, controlled by men (and often sealed from the gaze of non-family members). At the same time, the female body, and the reproductive organs in particular, is described as a house which has to be maintained, and kept in a state of ritual purity in preparation for intercourse – the union with the husband who as, the “head of the household” (*ba'al ha-bayit*) has access to both realms, his house and his wife's body.³⁴ Similar to rabbinic models, also in Graeco-Roman and early Christian traditions, one finds a close connection between female sexuality or anatomy and the symbolic value

³² Kiper and Schroer 2015.

³³ For instance, b. Bekhorot 45a explains the divergent number of limbs in men and women as based on the additional parts of the female genitalia imagined as doors, hinges, and a key. See Kiperwasser 2012; Lehmhaus 2019, 134–140. The Talmud in b. Niddah 31a describes embryonic development through the unborn's abode in three different “chambers” within a woman. See Kessler 2009; Lehmhaus 2019, 140–146, and the discussion in the following (45–48).

³⁴ See m. Mikwa'ot 8:4; m. Niddah 1:7–2:1; b. Shabbat 118b. Cf. Baker 2002, esp. 34–76; Fonrobert 2000, 40–60; Lehmhaus 2019, 138–140. For earlier, biblical traditions, see Berquist 2002.

of the house(hold) and the domestic seclusion of women therein, augmented by the virtue of modesty.³⁵

Finally, one finds interesting parallels or even a shared concept of female anatomy and physiology that figures in Egyptian, Mesopotamian, Jewish and Graeco-Roman traditions. Various texts describe the female body as featuring a passage or duct between the mouth and the uterus/vagina of a woman. Obstruction of this channel was regarded as harmful and potentially preventing conception.³⁶ This idea is prominently reflected in the *Aphorisms* (5.59, 4.554 L.): “A woman can test her fertility by applying an aromatic fumigation to her vagina, and checking whether the smell comes through her mouth and nostrils.”³⁷ Similar tests for fertility using odorous substances, such as the insertion of garlic bulbs or cloves into the vagina, are known also from earlier ancient Egyptian sources. Moreover, the assumed internal connection triggered various therapeutic approaches to ailments of the womb using fumigations through the nose and from below, baths, but also oral applications.³⁸ Based on this, but quite contrary to its original idea, later authors deployed the concept for testing virginity.³⁹

As can be seen in the last example, not only cultural conceptions of womanhood, but even medical ideas about female anatomy promoted by Galen and other medical writers were, in the absence of empirical or forensic approaches, not necessarily based on biological reality. Rather, scholars have suggested that the ancient medical authors used them as apt tools for imagining the unseen insides of women’s bodies.⁴⁰ Most ancient knowledge about women’s bodies were largely shaped by male authors and practitioners. Therefore, Helen King, Ann E. Hanson and Rebecca Flemming argue that Greek and Roman medical writers and doctors conceptualized female physiology according to the cultural expectations of other men – the guardians of their female patients or other medical experts –

³⁵ See McClure 2020 59–64; Ramsby 2007; Saller 1999. Cf. Baker 2002, 34–112. On the connection between women and the house(hold) in ancient Greece, see Campese 1983. On the specific and broader meaning of sexual morality (*pudicitia*) in ancient Rome, see Langlands 2006.

³⁶ See Pommerening 2023 (in this volume), 161–164, and 154 f.; similarly reflected in gynaecological therapies in Mesopotamia (cf. Steinert 2020a). For ancient Greece, see Dean-Jones 1991 and 1994, 73.

³⁷ Cf. Hippocrates, *On Diseases of Women*, 3.214 (8.414–416 L., ca. 400 BCE). Other texts, such as Hippocrates, *On the Nature of the Child*, 10 (7.510–512 L.), mention a vascular link between the uterus and the breasts that was important for the creation of breast milk. On the connection between fertility and the sotah-ritual (for the allegedly adulterous woman), see Dubrau 2016.

³⁸ For the Egyptian sources in Carlsberg IV (I, x and 4–6) and in P. Kahun, see Green 2001, 94; Ghalioungui 1977; and Jiménez-Serrano et al. 2020.

³⁹ See Lillis 2023 (in this volume 463–489); Meacham 2000. For striking parallels between ancient Mesopotamian and Greek applications of tampons or prescription and modes of testing (not virginity, though), see Geller 2021.

⁴⁰ See King 1998, 69–70; Holmes 2010. Paola Manuli (1980; 1983) suggested that Hippocratic gynaecology was largely shaped by men’s fantasies about the female body instead of empirical observations. On later constructions of female anatomy in Roman traditions and in Celsus, see hanson 1991a; von Staden 1991.

in order to raise their authority, communicate with, and convince their mainly male audience.⁴¹ Charlotte Fonrobert observes a similar phenomenon in rabbinic discourse on menstruation (“science of blood stains”) and women’s reproductive roles. According to Cynthia Baker, the rabbis built their discussions of the female genital architecture on broader cultural metaphors of the house and the (female) body, which served as appealing frames of reference for both their rabbinic colleagues and their (male) fellow Jews.⁴² Once created, such conceptual models form a significant, if not, the most authoritative source of knowledge about female physiology ultimately replacing first-hand female knowledge. In its wake, male rabbis became the only experts who could handle this “complicated taxonomy of shapes, locations, and colors” (of menstrual and other types of blood).⁴³

3. From Maiden to Woman – Puberty, the Female Body, and Society in Ancient Cultures

Ancient tradition held manifold views about the bodily development of boys and girls and the stages from childhood to adolescence. Signs of puberty were differently defined and understood.

In ancient Egyptian sources one finds rather sparse information about the biological development of both young boys and girls. For boys there might have existed a (public?) circumcision ritual as a rite de passage around the age of puberty (twelve to fourteen), which in some ancient sources (2nd century BCE) is also attested for girls. While so-called female “circumcision” or, to be more precise, the genital mutilation by partly or complete excision or infibulation in young girls has been associated with Egypt and northeast Africa (in particular, Ethiopia) since antiquity (cf. also the vague term “pharaonic circumcision” used in Sudan), the actual proofs for ancient Egypt are sparse and late.⁴⁴ Menstruation seems to have been

⁴¹ See King 1994; 1998, 21–53, and 2014, 22; Flemming 2000, esp. 361–367; and Hanson 1990. For parallels in Mesopotamian medicine, see Heeßel 2006; Couto-Ferreira 2018c; Steinert 2017a.

⁴² See Baker 2002.

⁴³ Rosen-Zvi 2013, 4. See Fonrobert 2000, 103–127; Lehmhaus 2019, 140–146.

⁴⁴ One may find references to these practices in Egyptian Greek papyri and Greek texts, such as Herodotus, St. Ambrosius or Strabo, *Geographica* 17.2.5 (cf. 16.4.9); n. p. [cited 22 March 2022]. Online: <http://data.perseus.org/citations/urn:cts:greekLit:tlg0099.tlg001.perseus-grc1:17.2>:

“And of the things especially zealously pursued by [the Egyptians] is this: that they raise all the children that are born; and that they circumcise the boys and they excise the girls, which is also a custom among the Jews. In fact, these latter are Egyptian in origin, as I said in the discussion about them.

(καὶ τοῦτο δὲ τῶν μάλιστα ζηλουμένων παρ’ αὐτοῖς τὸ πάντα τρέφειν τὰ γεννώμενα παιδία καὶ τὸ περιτέμνειν καὶ τὰ θήλεα ἐκτέμνειν, ὅπερ καὶ τοῖς Ἰουδαίοις νόμιμον· καὶ οὗτοι δ’ εἰσὶν Αἰγύπτιοι τὸ ἀνέκαθεν, καθάπερ εἰρήκαμεν ἐν τῷ περὶ ἐκείνων λόγῳ).”

See Cohen 1997 for a discussion of male and female circumcision and Strabo’s claim that circumcision for both sexes is a Jewish custom derived from the Egyptians. Philo who lived in Egypt

a prerequisite for girls to be marriageable, while for young men their economic capability of providing for their wives and family were crucial, which sometimes caused a rather large age gap between both partners.⁴⁵

Limited information bodily development, of girls in particular, can be gleaned from different Mesopotamian text types (administrative, legal, literary, scholarly) and from ancient artworks reflecting a differentiation between baby infant, child (boys and girls) and adolescents (boys and girls having reached sexual maturity).⁴⁶ For a girl, marriage and settling into the husband's household usually marked the end of adolescence, by an estimated age between 14 and 20 years. However, some marriage contracts show that boys and girls were often younger when they were legally "betrothed".⁴⁷ The Akkadian word *muštenû* "changed" could refer to a person who has passed from childhood to a marriageable age. While menarche is never explicitly touched upon as sign of nubility, in some Sumerian songs the young goddess Inanna rejoices about her prospects of marriage and mentions the growth of the breasts and pubic hair as being "ready for a man".⁴⁸ A special connection of the ambivalent goddess Inanna/Ištar with gender inversion and all types of rites de passage (in the human life course), including initiation rites for adolescent boys and girls has been noted, although textual evidence for such puberty rituals is relatively sparse.⁴⁹

referred to female circumcision as an Egyptian practice, while he gives an explanation for the limitation of circumcision to boys in his *Questions and Answers on Genesis*, 3.47 47. (Gen. xvii. 10): "Why does He command that only the males be circumcised? In the first place, the Egyptians by the custom of their country circumcise the marriageable boys and girls in the fourteenth (year) of their age, when the male begins to get seed, and the female to have a menstrual flow. But the divine legislator ordained circumcision for males alone for many reasons.

The first of these is that the male has more pleasure in, and desire for, mating than does the female, and he is more ready for it. Therefore, He rightly leaves out the female and suppresses the undue impulses of the male by the sign of circumcision. The second is that the matter of the female, in the remains of the menstrual fluids, produces the fetus. But the male provides the skill and the cause. And so, since the male provides the greater and more necessary part in the process of generation, it was proper that his pride should be checked by the sign of circumcision, but the material element, being inanimate, does not admit of arrogance."

See Knight 2001, Huebner 2009, Groff (forthcoming), and Feucht 2003 who critically survey ancient Egyptian and later Greco-Roman or Arabic sources and examine ancient and more contemporary practices regarding female "circumcision". Cf. Thumiger 2022; Cala 2023 (in this volume, 449–461), who discuss late antique medical sources for the practice of clitoridectomy. For a transcultural discussion of these practices from ancient to modern, see Johnsdotter 2012. Cf. Shell-Duncan and Hernlund 2000 (practices in contemporary African countries); Finszsch 2022 (medical clitoridectomy in Europe and North America between 1600 and 1950).

⁴⁵ See Booth 2015, Feucht 1995.

⁴⁶ Harris 2000, 7–28; Radner 1997, 126–155; Stol 2016, 7–10; Vogel 2014, 79–80. On artwork, see Vogel 2014; Volk 1996, 2004, 2006.

⁴⁷ See Roth 1987; Vogel 2014, 84; Stol 2016, 66–67.

⁴⁸ See Stol 2016, 12; Sefati 1998, 132–150; Wilcke 1985, 242–243; Steinert *infra*.

⁴⁹ See Glassner 2012; 2014; Steinert *infra*.

Childhood in antiquity and the transition into adolescence have recently been the subject of increased scholarly interest.⁵⁰ Ancient Greek sources, firstly Aristotle and the early Greek medical texts, tie the stage of puberty also to the swelling of the breasts and the onset of the menses in girls, and to the production of sperm and the growing of pubic hair in boys.⁵¹ According to various writers, boys develop more pubic and facial hair due to their warm and dry constitution, whereas women, classified as colder, have less hairs. Sexual maturity was accompanied by the development of the body in general, described as “swelling”, specifically denoted by growing physical strength. Bodily fluids and especially body odor increase due to changes in the balance of humors. For women this transition was, in particular, tied to images and rituals connected to water, flowing and fluidity.⁵² In general, the adolescent was considered in the humoral theory as warm and dry, with a possible abundance of yellow bile, and medical writers recommended an appropriate diet and lifestyle.⁵³ These traditions and many later medical writers define the age of fourteen as the usual time, with a possible start already between 11 and 13. However, the legal definition for puberty was set for girls at the age of twelve (fourteen for boys).⁵⁴ Leaving the status of virgin (*parthenos*) was often tied to marriage and becoming pregnant which really turned a maiden (*kore*) into a *gyne* with the double-meaning “woman/mother”.⁵⁵

Jewish texts acknowledge various stages in the developmental process from childhood and adolescence into adulthood, which are also extensively discussed by Tirzah Meacham in this volume.⁵⁶ According to rabbinic literature, the transformation from a “minor” child – a young boy (*qatan*), girl (*qetana*), or infant girl (*tinoqet*) – into an adolescent boy (*gadol*) or maiden (*ne'arah*) and then, after six months, into an adult woman (*bogeret/ishah*) is more or less coincident with the

⁵⁰ See e. g., Neils and Oakley 2003; Harlow and Laurence 2002 (esp. 54–78 on transition to adulthood); Cohen and Rutter 2007; Kieburg and Moraw 2014; Laes and Strubbe 2014.

⁵¹ Cf. Hippocrates, Hippocratic Corpus, *Epidemics* 6.1.4 (5.268 L.); Aristotle *History of Animals* 5.14 544b26–545b30; Galen, *Commentary on Hippocrates' Epidemics* 6 4.28 (17B.212 K 245,23–25 Wenkebach-Pfaff).

⁵² See Totelin 2020c.

⁵³ See Hippocrates, *On Regimen*, 1.33 (6.510–512 L. = 28, 8–29, 2 Joly); Galen, *On Hippocrates' Nature of Man*, 3.7 (15.186 K. = 94, 22–95, 7 Mewaldt), *On My Own Books*, 9.13 (19.37 K. = 162, 1–7 Boudon-Millot). Cf. the discussion in Eyben 1972, Gourevitch 1984, 81–88.

⁵⁴ See Amundsen and Diers 1969; Eyben 1972, 695–697. Cf. Hippocrates, *On Regimen*, 1.33 (6.510–512 L.); Gal., XV, 186; Galen, *On Hippocrates' Nature of Man*, 3.7., (15.186 K. = 94,22–95,7 Mewaldt).

⁵⁵ See McClure 2020, 58–59; Budin 2013, 13–17 and 64–67; Sissa 1992; Johnson and Ryan 2005, 61–87; also Blundell 1998. On the cultural underpinning of the medical focus on women's reproductive function in Roman culture, see Caldwell 2015, 79–104 and 105–165 (on marriage as a marker of adolescence/adulthood). Cf. Saller 1987 who argues for a rather late age for men (ca. 25) to marry which yielded an age gap in Roman marriages; and Shaw 1987 who concludes the late teens as the typical age for Roman girls to marry. For relevant medical texts, see Schubert and Huttner 1999, esp. 150–180. On early Christian texts, see Weissenreider and Dolle 2019, 459–463.

⁵⁶ See Meacham 2023 (in this volume 347–396). Cf. Kraemer 1989 for a general survey.

major rite of passage into religious maturity (*bar mitzvah*) and full legal responsibility, similar to the Graeco-Roman tradition. These were described in m. Niddah 5:7 in agricultural imagery as the three stages of ripening of a fig. Although adolescence and nobility were regarded as the most appropriate age to marry, the average age was probably higher.⁵⁷

Still, it requires a certain age – 13 for boys and 12 for girls – in addition to various physical signs for the onset of puberty which can occur earlier or later and were regarded as dependent on lifestyles (e.g., rural vs. urban) and bodily constitution. For girls, these signs include the emergence of the breasts by swelling and the changing color and shape of the nipple and areola.⁵⁸ Rabbinic texts also describe the transformation of the female genitals, especially the growth and softening of the pubic mound.⁵⁹ The second feature is the sprouting of pubic hair which may precede the swelling of the breasts and the rabbis debated whether two pubic hairs or a greater amount (“a crown of hair”) of (darker) hair covering also the pubic mound are sufficient to attest to her puberty. The change of status would render her marriageable and deprive her of the right to repudiate a betrothal or marriage arranged by her father or legal guardian.⁶⁰ While the expansion of this discussion in b. Niddah 52b or b. Yevamot 12b opts for conception and birth as clear signs of puberty, even for girls younger than twelve, the text does not mention explicitly menarche as such a sign. However, other texts mention and most discussion will have presupposed menstruation as another physiological process tied to puberty and occurring around the same age.⁶¹ With the transition the adolescent girl is also required to check herself regularly in accordance with the regulations concerning ritual im/purity due to menstrual blood and other instances of bleeding and genital fluxes.⁶²

⁵⁷ See y. Quid 1, 7 (61a) and b. Niddah 45b mention an early age (over 3 and over 12 years), while other sources refer to a range until the age of 20 (cf. e.g., ARNb 48; Avot 5, 21 or b. Quidd 29b. Cf. the discussion in Ilan 1995, 65–71; Shremer 2003, esp. 108–111; and Meacham 2023 (in this volume), esp.

⁵⁸ See m. Niddah 5:8; b. Niddah 47a–48b; b. BB 155b; LevR 2, 4.

⁵⁹ See m. Niddah 5:9 and 6:1; t. Niddah 6:4; b. Niddah 47b–48a, and 52a; y. Sanhedrin 8, 26.

⁶⁰ See m. Niddah 6:1; and its elaboration in t. Niddah 6:5–6; b. Niddah 52b; y. Yevamot 1:1 (2d), and its parallels in y. Sotah 2:1 (17d) and y. Pesahim 8:1 (35c). Cf. the discussion of these sources in Meacham 2023 (in this volume), 371–389. On pages 371–376, she discusses the rulings related to marrying off a minor girl still in her infancy (“three years and a day”) through a transaction or intercourse, which appears to be highly problematic from our perspective. On this, see the contradicting ruling in b. Quiddushin 41a and also b. Niddah 13b and the discussion by Kiel 2019 for possible connection to Manichean practices. On ancient Jewish marriage in theory and practice, see Satlow 2001.

⁶¹ See Philips 2006, 15–28.

⁶² See esp. m. Niddah 10:1. Cf. t. Niddah 1:8–9, 3:1, 5:4, and 6:8–9; b. Niddah 10b and 48b for the checking of girls/young women. See the discussion in Meacham 2023 (in this volume), 388 f.

4. Virginité

Also female virginity – commonly related to “inexperience of full vaginal intercourse with a male”⁶³ – and specifically the idea of the hymen which turned into a core-feature in various Western and Middle Eastern cultures from the medieval time onward, was surprisingly ambiguous a concept in earlier traditions, as is shown in Julia K. Lillis’s contribution in this volume.⁶⁴

While monogamy appears as the norm within ancient Egyptian societies, neither a concept or term nor any bodily marker of virginity seems to have been known. While sexual activity seems not to have been the focus of Egyptian discourse, the main distinction between two statuses of young women was pregnancy and birth, a feature shared with Graeco-Roman tradition. Accordingly, a girl who was nubile but sexually inactive or neither pregnant nor a mother was labelled as *nfrt*, a term referring both to “beauty” or “perfection” and the state of “never having been opened in (or by) childbirth”.⁶⁵ The meaning and concept is comparable to the Akkadian (*batultu*), Hebrew (*betulah*), and Greek (*parthenos*) terms to be discussed in the following.⁶⁶

Sumerian and Akkadian do not have specific words to indicate a virgin and it is likely that the existence of a hymen was unknown.⁶⁷ However, some terms for a marriageable girl (e. g., Sumerian *ki-sikil*; Akkadian *batultu*) can in some contexts take on the meaning “virgin”. Virginity is also expressed with terms denoting “purity” (Akkadian *ellu*; Sumerian *ki-sikil* “adolescent girl; young woman” literally means “pure one”) or the term “unopened one” (*lā pētītu*, used exclusively with regard to female animals) and “one who does not know (the penis or a man/woman)”, i. e., sexually inexperienced.⁶⁸ In the Sumerian myth *Enlil and Ninlil*, the virgin goddess Ninlil counters the advances of the god Enlil by saying that her “vagina (*galla₄*) is (still too) young/small (*tur*), it does not know *how to stretch*” for sexual intercourse.⁶⁹ The fact that value was placed on girls’ virginity at the time of marriage in Mesopotamia (as in the Ancient Near East in general) can be concluded from a number of law texts that punish the rape of a betrothed girl still living in her father’s house or false accusations of pre-marital sex, which were regarded as affronts and injuries to the girl’s father. The expectation that a girl should be a vir-

⁶³ Sissa 2013, 68.

⁶⁴ See Lillis 2023 (in this volume), 463–489. See also her studies in Lillis 2017a and 2022. For a broad diachronic survey, see MacLachlan and Fletcher 2007. For ancient sources texts, see Weissenreider and Dolle 2019, 490–498.

⁶⁵ Green 2001, 92.

⁶⁶ See Booth 2015; Green 2001; Cooper 2002.

⁶⁷ See Cooper 2002; Steinert 2017a: 291 n. 33.

⁶⁸ Stol 2016, 13–17.

⁶⁹ Cf. Matuszak 2016: 247–250; 2020: 350 for the positive connotations of a wide or large vagina (able to satisfy her husband) and healthy, fertile womb as traits of an ideal married woman in Sumerian texts.

gin when she married further fits in with the patriarchal family structure, gender relations, and with laws concerning adultery in Mesopotamia. These laws treated adultery as an offense to the exclusive rights of the husband over his wife's body and aimed to ensure that the children a woman bore were sired by the husband.⁷⁰

The restless ghosts of adolescent girls and boys who died before having married, experienced intercourse and begotten children were regarded as both pitiful and dangerous, as they were believed to turn into male or female "wind-demons" (*lilû, lilitu, ardat lili*) who continued to search for a marriage partner among the living, thus causing specific ailments in their (sometimes adolescent) victims which were treated with special types of rituals. A similar idea can be found in ancient Greece with regard to "virgin demons/ghosts".⁷¹

Virginity in Graeco-Roman traditions cannot be taken as a monolithic concept. It carries different implications in various cultural (age/sexually unexperienced), social (not married) or religious (ascetism/celibacy) contexts. As in Egyptian, Mesopotamian, and Jewish cultures, the Graeco-Roman tradition cherished virginity mainly as a cultural concept that bound the sexually non-active but nubile girl to her father's house and later the married woman to her husband to guarantee the "purity" of the male line.⁷² Metaphorically, in addition to container imagery, the female virgin body was often depicted in Graeco-Roman cultures in analogy to a beautiful city, garden, vase, or another enclosed space. One may find similar representations of a maiden's body and in biblical texts, especially the *Song of Songs*⁷³, and in early Christian traditions that link virginity, as a state of mind, with the eternal garden (paradise) symbolizing innocence and deliverance.⁷⁴

As scholars have highlighted, ancient medical writers knew of instances of pain and bleeding during or after a woman's first intercourse, which might be caused

⁷⁰ See Stol 2016, 235–250; 258–263.

⁷¹ See e.g., Geller 1988; Scurlock and Andersen 2005, 272–274, 434–436; Scurlock 1991, 151–152; 2014b, 101–105. I thank Ulrike Steinert for this section on ancient Mesopotamian traditions. On Greece, see Budin 2013, 67.

⁷² See McClure 2020, 59; Konstan 1994; Gourevitch 1984, 105–112; Rousselle 1988, 129–140; Ogden 1997; cf. Laes 2011 on the educated midwife and Roman witnesses at birth. On the broader sociocultural and religious implications, see Sissa 1990 and 2013, esp. 73–89; Caldwell 2015, esp. 45–78; Cooper 1996; Hersch 2010; Pepe 2012; Musgrove 2017, 99–123. For similar ideas in biblical and Jewish-hellenic traditions (Sirach/Philo), see Berquist 1998; Shveka and Faust 2020. On marriage and the family in early Christian culture and its (dis-)continuity with pre-Christian Roman approaches, see Rousselle 1992; Evans-Grubbs 1994; Jacobs 1999; Hunter 200 and 2002; Shruve 2016.

⁷³ Cant. 4:12–13 and 16: *You are a garden locked up, my sister, my bride; you are a spring enclosed, a sealed fountain. Your plants are an orchard of pomegranates with choice fruits [...] Let my beloved come into his garden and taste its choice fruits.*

⁷⁴ See Sissa 2013, 90 f.; Upson-Saia 2019; Sissa 1990, 172–174; Shruve 2016. On Augustine navigating between the humble marriage (and moderate sexuality) and proud virginity with a corrupted mind, see Hunter 2002.

by the first “opening of the womb” that allowed remnants of menstrual blood to issue.⁷⁵ However, similar to Mesopotamian texts, they did not relate these phenomena to the rupture of a hymen since “the notion of a virginal hymen”, clearly rejected by Soranus and Oribasius, “does not appear in surviving medical literature until the seventh century C.E”, mainly perceived as a membrane sealing the cervix and, precisely, not the vagina.⁷⁶ Membranes and other obstruction of the vagina or the womb were rather considered pathological and dangerous. Ancient Greek traditions took mainly pregnancy and not any anatomical element as a visible sign of transformation into a non-virgin or *gyne*.⁷⁷ This amplifies the “sheer indecipherability of a woman’s sexual experience, when one does not know if she is married or not – and there is no child in view.”⁷⁸ Strategies of testing virginity in most ancient cultures, thus, relied most commonly questioning by authorities, the woman’s testimony and the statement of reliable witnesses. Mesopotamian, Greek and early Christian traditions also refer to probes of virginity and the women’s testimony through a ritual or ordeal, often involving divine or supernatural forces,⁷⁹ as emphasized by Lillis: “[...] these [...] are the accepted ones for ascertaining truths of all kinds, but probably also because female virginity is generally thought to be verifiable only by such means; the virgin’s body does not offer alternative signs.”⁸⁰

It seems that only at a very late stage, from the late fourth century onward, the medicinal and general discourse assumes that virginity manifests anatomically – either through the existence of a membrane, the narrowness and dryness of the vagina/vulva, or other anatomical signs.⁸¹ In contrast to the ancient Greek dichotomy between virginity and motherhood, Giulia Sissa argued that in the wake of an abundance of contraceptive and abortive approaches or recipes in Rome, “in the second century CE, virginity as the objective, positive, tangible state of a female body, became a problem. The hymen is defined, in other words, as a semi-otic piece of anatomy.”⁸² Still, different conceptions of virginity, e. g., physiological

⁷⁵ As examples of sources, cf. Soranus, *Gynecology*, 1.16; and Dean–Jones 1994, 47–55 (on Hippocratic ideas).

⁷⁶ Lillis 2023 (in this volume), 470 (cf. *ibid.* 469–472, referring to Stephanus, *Hippocratic Aphorisms* 5.63, 162–164 Westerink); Sissa 1990, 165–176; Musgrove 2017, esp. 126–145.

⁷⁷ See Soranus, *Gynecology*, 1.17; 1.34–35; 3.7; 3.9; 3.18; 4.7; 4.17 (discussed by Pinault 1992); and e. g., Hippocrates, *Nature of Women*, 67; *On Sterility*, 11; and *Diseases of Women*, 1.20 (on obstructions of the vagina or uterus by a membrane). Cf. the discussion in Hanson 1992a, 243–244 (mainly Hippocratic ideas); King 1998, 27–35 and 70–72; Hanson 1992b; Hanson 2007. Hanson 1990 points to the Hippocratic idea of a “seal/lid/stopper” of the uterus opened up through first intercourse, which has been questioned by Sissa 2013, 90–96.

⁷⁸ Sissa 2013, 83.

⁷⁹ On the ordeal, questioning and testimonies, see Vuong 2013, 171–182; and the discussion of rabbinic texts (esp. b. Ketubbot 10a–b) in the following.

⁸⁰ Lillis 2017a, 61.

⁸¹ See Lillis 2023 (in this volume), 469–479.

⁸² Sissa 2013, 97. On contraception in Rome, see Hopkins 1965; and now Flemming 2021a.

(birth), anatomical (hymen), but also ascetic and spiritual, remained in play and existed side-by-side.⁸³

This changing conceptualization also affected, albeit slowly, medical and cultural approaches to virginity; however, both medical writers and religious authors, whether Jewish or early Christian showed considerable reluctance to resort to gynaecological examinations for proving virginity. Vaginal inspections would have been, in general, rather uncommon among health practitioners, both male and female. The mention of midwives as involved in those virginity tests remain ambiguous and various authors demur that even anatomical “proof” would only verify vaginal virginity, while other forms of sexual enjoyment and, thus, the virginity of the soul could still be lost.⁸⁴ As Cyprian notes: “and if she is found to be an uncorrupted virgin in that part in which a woman can be, she still could have sinned with some other part of the body that can be corrupted and yet cannot be inspected.”⁸⁵ Rabbinic texts, though familiar with gynaecological examinations and tests, especially regarding menstrual im/purity, equally object virginity inspections.⁸⁶ In one passage about suspicion of a wife’s virginity, R. Gamliel resorts to a staged test – a woman squatting over a wine barrel and smelling the wine from her mouth – first on female slaves and then on the suspected wife. The positive notion of the sealed passages between the lower and upper mouth seems like a virginal inversion of an Egyptian and Greek fertility test which aims precisely at smelling the wine, since every obstruction was regarded as pathological.⁸⁷

While virginity is an important idea in ancient Jewish tradition, the anatomical and physiological concept behind these concepts is far from obvious. As we have seen above regarding Christian (mis)interpretations, Hebrew as well as most other Semitic languages in the Ancient Near East knew no word that would correspond to the narrow understanding of the modern term “virgin”. Instead, *betulah* (בתולה) reflects a certain age, in which the bodily and legal maturity transforms a girl’s status into “marriageable” – close to the Greek terms *kore* (or *nymphe*).⁸⁸ Biblical texts give some rulings regarding (possibly) consensual and non-con-

⁸³ See Beard 1980; Lillis 2017. On spiritual and ascetic virginity, see Shaw 1998; Undheim 2017; Dunning 2011, esp. chs. 4–5.

⁸⁴ For a longer discussion, see Lillis 2017a, 390–211. See Vuong 2013, 182–190, on Mary, the Lord’s untouchable Virgin. When a Hebrew midwife and Salome try to perform a vaginal examination, most probably regarding her reproductive virginity, the latter’s hand gets burned. For reference to midwives performing such tests, see Clark 1993, 74 f.; Malkiel 2006, 124 f.; and Lillis 2023 (in this volume), 474–479, stressing the prevalence in North African Christianity.

⁸⁵ As quoted by Lillis 2023 (in this volume), 475.

⁸⁶ See Fonrobert 2000, 137–147. The Qumranic sources, understood by Shemesh 1998 and Tiggey 1993 as referring to vaginal virginity inspections, may rather refer to testimony “by women of repute” or self-examination.

⁸⁷ See Preuss, 478; and Meacham 2000.

⁸⁸ See the comprehensive discussion in Wenham 1972, who also mentions the similar meaning for Akkadian *batultu* and Ugaritic *btlt*.

sensual sex (rape) with such an unbetrothed woman (*betulah*), which usually is solved by paying the higher bride-price and marriage.⁸⁹

In biblical texts (Deut 22:13–21), we come across first instances of husbands questioning the virginity status of their brides and reclaiming their paid bride-price. This was a crucial issue and is elaborated on in rabbinic source, which mostly tend not to follow the claims of the husband.⁹⁰ The so-called “signs of virginity” (*betulim*/בתולים) mentioned in Deuteronomy are not further specified and have been haphazardly (mis)interpreted as referring to blood stains after a first penile-vaginal penetration. They might, however, rather relate to a girl’s adolescence and bodily maturity.⁹¹ This ambiguity still holds true for similar cases in Talmudic texts, which, similar to Graeco-Roman traditions, display a wide range and a considerable diachronic development of conceptualizing and proving virginity which functions on the level of the physical body, social institutions (family, marriage, community etc.), and as a legal concept while deeply impacting women’s life regarding their sexuality, gender, and social life.⁹²

The lack of “signs of virginity/maturity” is explained based on bodily predisposition – due to a famine, physical overexertion, or inherited anemia (*truqati/dorqati*).⁹³ These explanations would, however, make sense for both scenarios: post-coital bleeding and regular occurrence of menstrual bleeding – neither of them requiring a hymen.⁹⁴ In various discussions bleeding is not regarded as an usual sign, especially not for a post-pubescent girl, i. e., a woman (*bogeret*) who, according to y. Ketubbot 1,1 (25a), is “like an open casket”.⁹⁵ Similar to Graeco-

⁸⁹ See Ex 22:15–16 and Deut 22:28–29; and the discussion in Feinstein 2013.

⁹⁰ On the biblical texts, see Locher 1986; Wells 2005, Edenburg 2009; Fleishman 2008; Lipka 2006; Berlin 2009; Koller 2010. For a diachronic study of the rabbinic discourse, see Kulp 2006. Cf. also Ilan 1993 and 1995, 97–100. On the cultural symbolism of betrothal and marriage, see Labovitz 2009; Wegner 1988.

⁹¹ Weham 1972, 330 f., proposes a translation as “tokens of adolescence” proving that the girl was truly of marriageable age, attested by menstruation and the ability to conceive. But later, he suggests that the lack of *betulim* refers to the absence of the menses due to a pre-marital pregnancy. In both cases, *betulah* and *betulim* would be connected closer to menarche than to virginity. Cf. Tiggey 1993 for anatomical proofs of virginity (and adultery) in Qumranic texts.

⁹² See Davidovich Eshed 2019 and 2020. On later, medieval developments, see Davidovich Eshed 2014.

⁹³ The discussion in y. Ket. 1, 1 (25a) mentions a girl whose *betulim* (signs) fell out because of the high steps in her father’s house (cf. b. Shabbat 63b) and one who was “struck by a stick”. Both claims were often automatically interpreted as the rupture of a hymen but could also refer to a premature issuing of the sealed menstrual blood, as in Graeco-Roman theory. See Rouselle 1993, 67 f.; Sissa 2013; Kulp 2006, 47–52; Rosenberg 2018, 90–116.

⁹⁴ See y. Ket. 1, 1 (25a) and b. Ket. 10b which explicitly mentions both menstrual blood (*dam niddah*) and virginal blood (*dam betulim*). In addition, various sources invoke the local custom of “dating” of already betrothed spouses before marriage implying opportunities for sexual encounters as a safeguard mechanisms and counter-argument against any such *a posteriori* claim by the husband. Cf. m. Ket. 1:5; t. Ket. 1:4; y. Ket. 1, 1 (25a); and b. Ket. 9b and 12a. See Kulp 2006, esp. 56–63; Rosenberg 2016; Ilan 1997, 194 f.

⁹⁵ See m. Niddah 5:8; t. Niddah 6:4; t. Ketubbot 1:3; b. Ketubbot 39a. Cf. b. Ketubbot 36a–b.

Roman, Egyptian and ancient near Eastern traditions, several midrashic sources attest to an idea that the first “opening the womb” will release sealed-up menstrual blood. Accordingly, in order to safeguard conception at the first try (i. e., intercourse), a previous opening through manual (self-)penetration is required.⁹⁶

Some discussions also refer to pain during (first) intercourse but without presupposing a membrane, whereas others downplay the centrality of pain.⁹⁷

Other texts, such as b. Ketubbot 10a–b, contrast doubts of virginity based on the absence of blood with alternative or supplementary claims about the “open” or “loose orifice” (*petah patuah*) with regard to their experience or sensation during the first intercourse. While this most certainly reflects male expectations of “vaginal narrowness [...] to be a trait desirable to a male sexual partner”⁹⁸, as in contemporaneous Graeco-Roman cultures, it does not necessarily attest to the idea of a hymen. Most strikingly, the husband is always ensured that this impression was due to his divergent angle or too forceful approach during penetration.⁹⁹

Other rabbinic passages, as in ancient Greek culture, seem to understand pregnancy as the main sign for loss of virginity, which, however, poses a difficulty if the young woman is not married (i. e., a *betulah*). In this context, the great sage Shmuel brags about his ability to penetrate young women (*betulot*) without causing any bleeding. While this has been understood by commentators and scholars as a clear reference to not tearing the hymen, it still might fit into the above mentioned expectation of vaginal bleeding due to thrust and friction of penetration.¹⁰⁰

The importance of nascent Christianity and its focus on Mary and virgin birth for newly emerging concepts, like celibacy and ascetical virginity, has frequently been pointed out.¹⁰¹ Still, studies have become more critical and cautious in ad-

⁹⁶ See Gen. Rabbah 45, 4; y. Ket. 1, 3 (25b); b. Yev 34b; Mass. Soferim 21:9; and the discussion in Malkiel 2006.

⁹⁷ See ARNa 1, and b. Ket. 39b where mothers and daughters compare the pain of (first) intercourse with “hot water on a baldhead”, “the incision of the bloodletter’s lancet”, or “hard bread pricking on the gums”. Cf. Rosenberg 2018, 173–180. On post-coital bleeding and the discourse on im/purity, see Rosenberg 2018, 148–173.

⁹⁸ Rosenberg 2016, 470, discussing such ideas in b. Eruvin 54b, b. Yoma 29b.

⁹⁹ Interestingly, if the claimant was a bachelor he should be punished by flogging, since he without prior sexual experience he would have no basis of comparison (b. Ket 10a). For a discussion of this sequence, see Rosenberg 2018, esp. 119–147.

¹⁰⁰ B. Hagigah 14b–15a discusses the “pregnant virgin” (*betulah*). See also *Ketubot* 1, 3 (25c). Cf. *Prot. Jas.* 15:8. See b. Niddah 64b–65a on the post-coital bleeding using the simile of entering into a narrow opening which may cause pebbles to fall from the wall. This supports a vaginal rather than a hymenal bleeding. Cf. b. Sanh. 73b distinguishing between external touching of genitals (“kissing”) and inserting only the tip of the penis. See the different interpretations in Ilan and Kipperwasser 2019 vs. Rosenberg 2018. Even the ritual change to a “blessing of (the loss of) virginity” (*birkat betulim*) in post-Talmudic, Geonic time (in *Halakhot Gedolot*) that involved a proof via blood stains does not necessarily imply a hymen. See Langer 1995; Malkiel 2006; and the contemporary, early Islamic midrash PRE 16 that reports Isaac’s digital penetration of Rebecca in order to prove her “signs” (והוציא את בתוליה) before actually consuming the marriage.

¹⁰¹ See Castelli 1986; Elm 1994; Shaw 1997 and 1998; Rousselle 1988, 179–193; Undheim 2017;

dressings the very ambiguity of Christian understandings of virginity (*parthenia*) and the representations of Mary in light of their Graeco-Roman, Biblical, and Jewish contexts. While earlier scholarship presupposed anatomical (hymenal) virginity as the basis of narratives on Mary and Jesus's birth, it seems quite reasonable that many texts reflect rather an understanding of her status as being of "marriageable age" (as a *betulah*). Even explicitly descriptions of investigation of Mary's bodily state by midwives do not point toward the concept of a hymen but were probably concerned with her body reflecting no actual signs of birth – a reproductive virginity similar to the "unopened woman" in Mesopotamian and Greek tradition.¹⁰² From the third century onward Christian authors, also triggered by dynamic concepts of Maryanism and Christology, cultivated notions of closedness, integrity, and vaginal virginity that manifests anatomically. However, other conceptualizations of virginity as rather spiritual and bound to virtue and chastity remained very important. For, similar to their rabbinic contemporaries and Graeco-Roman medical writers, Christian authors were often torn regarding the reliability of physical examinations as Lillis shows in her contribution to this volume.¹⁰³

5. Created Male and Female? – Undetermined Sex, Gender-Crossing, and Third Gender

While earlier scholarship often took concepts of the body as based on given facts, recent interest has shifted toward the cultural fabrication of bodies, sex and gender in ancient traditions that highlights their hybridity or ambiguity.¹⁰⁴

cf. Cooper 1999, who describes the contrast between the Graeco-Roman ideal of the virgin as a future-wife/mother and the virgin turned into a female ascetic; Walker 2020 argues here for structural continuity between the Greek "bride of Hades, and the life-long female Christian virgin or celibate ascetics." Cf. Rosenberg 2016 on possible rabbinic counter-narratives.

¹⁰² This scholarship focusses mostly on texts of the New Testament, specifically Luke-Acts, and the *Protevangelium of James*. See the rather broad and often generalizing study by Foskett 2002 as well as more detailed and nuanced research by Lillis 2016; Vuong 2013, esp. 148–191; Emmenegger 2014. But also later texts (e. g., by Ephrem, Clement, Origen, Jacob of Serugh) refer to Mary primarily as a mother with unchanged virginity – she can nurture her son but was spared the "curse of Eve" (Gen. 3), i. e., labor pain etc. See Lillis 2017b and 2020; Rosenberg 2016, esp. 476–481 and 490–492 (on painless birth in b. Sotah 12a). On rabbinic counter-models to Mary, especially through the matriarch Sarah, see Schwartz 2021.

¹⁰³ See Lillis 2023 (in this volume, 463–489); and Lillis 2017a and 2017b. Cf. Hunter 2000 and 2002 on Ambrose's, Jerome's and Augustine's view of (spiritual) virginity and sexuality. Cf. Shruve 2016; Undheim 2017; and Ivanovici and Undheim 2019 (on consecrated virgins).

¹⁰⁴ For some recent studies, see the contributions in James 1997; Campanille et al. 2017; Surtees and Dyer 2020; Hornsby and Guest 2016. For a survey focusing on the use of non-binary models of sex and gender in religious, legal, and sociopolitical discourse from late antiquity to the early modern period, see DeVun 2021.

The ancient Egyptian creation myth starts with eight male and female deities forming the basic principles (*hmnyw*). Based on this, the male god Atum (light) in an act of masturbation began to populate the universe with other male-female divine siblings, representing cosmic entities (air, wetness, sky, earth etc.). Eventually, male and female were created on earth from Atum's (Amun/Ra) tears fertilizing the soil.¹⁰⁵ Moreover, while men as the active part in reproduction could be reborn through self-begetting, a dead woman would have to undergo a temporary switch of sex in order to impregnate herself.¹⁰⁶

Mesopotamian anthropogonic myths conceptualize the creation of humankind in several different ways: in some accounts, humans emerge from the earth like plants, presumably as two sexes, while in others, a prototype or "model-body" of unspecified sex is shaped from clay and (in some accounts) flesh/blood. The body of this prototype may have been androgynous, although the term referring to it (*lullû-amēlu*) has male connotations (meaning both "human" and "man").¹⁰⁷ Similarly, the Biblical and later Jewish and Christian accounts know of the simultaneous creation of male and female, but also of *Adam ha-rishon*, "the first of human kind", who, possibly 'androgynous' at first, becomes unambiguously male (*ish*) only with the creation of his female counterpart (*ishah*) Eve.¹⁰⁸ This shapes the extreme duality of bodies, sex and gender in Jewish (legal) culture which tends to integrate every phenomenon into a clear cut male/female binary system with little room for diversity and exception.¹⁰⁹ Greek and Roman traditions were certainly shaped by the ideal of the male body (and mind) compared to which women were regressed inferior. Still, the focus on male superiority and the promulgation of a one-sex model was not all-pervasive and various alternative concepts of sex and gender existed simultaneously.¹¹⁰

5.1. *Inter-sex*

In ancient Egypt, one encounters descriptions and depictions of various gods as equipped with two sets of genitals or being half man, half woman.¹¹¹ The Sumerian myth *Enki and Ninmah* to the goddess Ninmah creating several handicapped

¹⁰⁵ See Duman and Zivie-Coche 2004, esp. 42–70.

¹⁰⁶ See Cooney 2008.

¹⁰⁷ In the *Atramhasis myth*, the creation of the prototype is followed by a second act of creation of pairs of male and female human beings who are able to reproduce. Cf. Stol 2000a, 109–119; Heimpel 1997, 546–547, 558–560; Asher-Greve 2002, II. See Steinert *infra* for discussion.

¹⁰⁸ See Townsend 1994; Noort 2000; Brettler 2014. On the possible cultural background of the second creation myth, see Secunda 2012. For the mainly Christian theories about androgynous or non-binary bodies at creation and after resurrection, see DeVun 2018 and 2021.

¹⁰⁹ See Fonrobert 2006 and 2007.

¹¹⁰ For the one-sex vs. two-sexes dispute, see above 6–7. On Graeco-Roman sex/gender concepts, see above p. 19, n. 95; and esp. the articles in McLure 2002; King 2013a and 1998, 40–53; DuBois 1991; Hanson 1990; Dean-Jones 1994.

¹¹¹ See Depauw 2003, 55 f.; For other aspects, see contributions in Graves-Brown 2008.

human beings with an assigned “fate”, i.e., a function in society. One asexual being, lacking a male or female sexual organ, is destined to serve as an attendant of the king.¹¹² The birth of babies with intersexual characteristics (having neither penis/testicles or vulva, or having both penis and vulva) is mentioned in omen texts dealing with monstrous births. These texts portray such events as ill-boding signs signaling death and calamity on the individual and collective level.¹¹³ Similar approaches are known from Graeco-Roman cultures in which newborns with intersexual features were regarded either as deviant “monstrous births” or (later) as entertaining curiosities of creation.¹¹⁴

Graeco-Roman myths narrated the emergence of a two-sexed/intersex as the consequence of the wish of a nymph who fell in love with the son of Hermes and Aphrodite and they were divinely merged into one body. Instead of the modern understanding of male and female genitals, many ancient depictions reflect this fusing rather vertically by displaying male genitals and a female torso with breasts and hair.¹¹⁵ Other sources mention two-sexed human beings as the result of a creative attempt of a drunken god (Prometheus).¹¹⁶ Plato, however, suggested an original triad of sex/gender in which the *androgynē* – a human with two genitals, two bodies, and two faces – was regarded by Zeus as too perfect and haughty.¹¹⁷ Ancient authors also refer to persons with concealed genitals or intersex features,¹¹⁸ but, as scholars have pointed out, the term “hermaphrodite” in Graeco-Roman (medical) texts refers to a broad range of anatomical features and was often impacted by cultural and religious assumptions.¹¹⁹

¹¹² Jacobsen 1987, 151–166; ETCSL c.1.1.2, lines 75–78.

¹¹³ Stol 2000a, 104, 164; De Zorzi 2014, 422–423 Tablet 3: 69–71.

¹¹⁴ Garland 2010, 68–72 mentions the expiation and expulsion of hermaphrodites as victims or sacrifices by the Romans, while babies were drowned in the sea accompanied in a ritualistic procession. Cf. Graumann 2013 for the transient image of the hermaphrodite from “monster” to a curiosity in Roman culture.

¹¹⁵ See Brisson 2002; Nugent 1990, Ajootian 1997; Langlands 2002.

¹¹⁶ Cf. the motif in Aesop’s fables.

¹¹⁷ Plato, *Symposium*, 189E – 193B.

¹¹⁸ See Callo/n and Herais/Diophantos who were both designated as female at birth but later showed male genitals. Cf. Langlands 2002; Brisson 2002, esp. 7–40; Pfuntner 2020. See also Sandhoff 2011 (androgynous imagery in Etruscan culture).

¹¹⁹ See Graumann 2013; King 2015; Pfuntner 2020. Finzsch 2022 mentions clitoridectomy as a Western medical cure for so-called “hermaührodites”, namely women with hypertrophied clitorises. Cf. the hypertrophic clitoris mentioned by Soranus, *Gynaecology* 4.9 (147, 2 Ilberg) as an indicator of gender ambiguity or intersex and discussion in Knight 2001. See also Cala 2023 (in this volume, 449–461); and Thumiger 2022, esp. 148–155, who study clitoridectomy as discussed by later authors (Caelius Aurelianus, Muscio, Paulus of Aegina, and Aetius of Amidah). The surgical intervention is advised for women whose clitoris (*nympha*) and other parts of the vulva (*cauda*) due to being (excessively) enlarged (Thumiger 2022, 148, citing Caelius: “Some clitorises reach a horrifying size”) yielding erections similar to the male penis and being prone to an increased (male?) sexual drive. These authors report of women’s shame and judge this occurrence as an ugly deformation that is associated with wickedness and indecency. For a diachronic survey, see Nurka 2018; and the contributions in Hulverscheidt et al. 2018.

While Augustine, stressing the male/female binary, described the birth of intersex babies (*androgynoi/hermaphroditoi*) merely as a caprice of nature, other Christian writers theorized about the androgynous nature of Adam – the first human – and Jesus – the “second Adam” – a state to which all humans will return in the after-life or eschatological age.¹²⁰

Biblical texts do not mention intersex people, but Talmudic tradition discusses in astonishing detail people with non-normative genitals since they challenged rabbinic legal binaries of sex/gender. Individuals labelled with the Hebrew term *androgynos* (אַנְדְּרוֹגִינוֹס), based on the similar Greek word (ἀνδρόγυνος), were probably born with both male and female genital features. While this double-sex anatomy renders such a person also a legal hybrid, a creature *sui generis* (בְּרִיָּה לְעַצְמוֹ), or a “sometime Jew”, the rabbinic penchant for disambiguation calls for some, albeit temporary, assignment to one sex/gender¹²¹:

“in the case of the *androgynos*: there are ways that the [*androgynos*] is equivalent to men, there are ways that the [*androgynos*] is equivalent to women, there are ways that the [*androgynos*] is equivalent to both men and women, and there are ways in which the [*androgynos*] is not equivalent to men or women. (t. Bikurim 2:3)

Accordingly, for an *androgynos* different parts of Halakhah (penal, family or inheritance law, fitness for religious commandments, ritual im/purity) apply in different situations, sometimes including rules for men and women and sometimes excluding such individuals altogether.¹²² Likewise, also an individual with concealed and indeterminate sexual organs, called a *tumtum* (טוֹמְטוֹם), posed a challenge to rabbinic conceptualization of male/female.¹²³ The Babylonian Talmud (b. Yev 83a) proposes a surgical intervention when the sexual organs of a newborn are covered by a slight skin or remain inside the body. This is meant to enable this person to procreate and become a fully respected (i. e., male) member of Jewish society. However, others object this dangerous procedure as useless if the surgery reveals that the person is congenitally infertile or a woman.¹²⁴ Consequently, the

¹²⁰ Meeks 1974; MacDonald 1988; Dunning 2011, esp. chs. 1–3; DeVun 2018 and 2021. On the (medieval) idea of Jesus as an androgynous being, see DeVun 2021, esp. 163–199.

¹²¹ The rabbinic concept does not ultimately distinguish between sex and gender, but rather determine physical gender or biological sex through anatomical features.

¹²² For instance, the *androgynos* becomes ritually impure through both menstruation and seminal emission (t. Zava 2:1). The Tosefta (t. Parah 5:5) includes the *androgynos* as being fit for performing a ritual when regarded as a circumcised male, but as unfit if regarded (anatomically) a woman. Cf. m. Shabbat 19:3 and b. Shabbat 136b on the reluctance to violate the Shabbat for the circumcision of a new-born *androgynos*. Fonrobert 2007, esp. 273 and 280–288; Lev 2018 and 2021; Strassfeld 2016 and 2022, esp. 55–114. The binary scheme of rabbinic halakhic discussions resembles the Roman juridical treatment of people with ambiguous gender/sex. Cf. Graumann 2013, 196 f.

¹²³ For instance, t. Parah 5:5 does not allow the *tumtum* to perform the ritual since a *tumtum* due to the concealed genitals cannot be regarded as a circumcised male.

¹²⁴ A similar tendency can be noticed regarding men with various mutilations of their genitals who can neither marry into the congregation nor perform certain commandments (Deut 23:2; m.

androgynos and *tumtum* become a “technology”, a case or concept useful for establishing and delineating a strict gender dichotomy while also broadening the spectrum and including non-binary bodies.¹²⁵

5.2. Third-gender

Various ancient traditions attest to groups of persons born as males who bear special titles and are depicted as having an ambiguous gender identity deviating from the normative gender categories masculine and feminine.

Beside mention of intersexuality or persons with undetermined sex, one finds the mention of, most likely congenital, eunuchs (*šht*) as a third gender in ancient Egypt, alongside other terms (*tkr*; *kr*) designating the “infertile” or “castrates”. In other instances, effeminate men (*hm/hm.t*) are also mentioned, maybe referring to homosexuals, who possibly also performed various priestly functions or served in the royal palace. Moreover, ancient Egyptian tales and artefacts refer to (temporary) transgender or androgynous transformations of humans and various deities – including both anatomical change and secondary aspects such as dress or behavior.¹²⁶

In Mesopotamia, third-gender persons comprised several groups or categories that varied from one another.¹²⁷ Several of them served as personnel either in the palace or in the cult of the goddess *Inanna/Ištar* and were involved in rituals that celebrated the powers of this ambivalent deity (connected both with femininity and masculinity, and responsible for both sexuality/love and aggressiveness/warfare).¹²⁸ Another distinct functionary operating in the context of the temple

Yev 8:2). In such cases, the rabbis recommend surgical corrections, if possible, in order to safeguard the genitals' function to impregnate. See y. Yevamot 8, 2 (9b); b. Yevamot 76a and 83a. See the discussion of surgical intervention and sex-change for “hermaphrodites” in Greek and Roman texts by Androutsos 2001; Langlands 2002. Cf. DeVun 2015 and 2021, esp. 134–162, for similar approaches in medieval time.

¹²⁵ See Fonrobert 2006 and 2014; Strassfeld 2016 who argue for a strict binary concept, while Kessler 2019 and 2020, referring to Mekhilta *Mishpatim* 2 and 11, Sifra *Kedoshim* 9, *Tazria* 5, and Sifre *Numbers Naso*, tends to see a more inclusive approach. An example of simultaneous inclusion and exclusion is the rule in t. Berakhot 5:14 according to which the *androgynos* and *tumtum* do say a blessing individually but they cannot act for the community or congregation. For an early, strictly medical discussion, see Preuss 2004, 226–228. Cf. the survey of non-binary bodies in DeVun 2021.

¹²⁶ See Wilfong 2007, esp. 211; Simini 2017, esp. 90–91; Depauw 2003; Crowhurst 2017. Cf. also the contributions in Graves-Brown 2008.

¹²⁷ Peled 2016 with previous literature; Peled 2018; Helle 2018, Cases of “masculine females” in Mesopotamia are limited to the masculine attributes of the goddess *Inanna/Ištar* and to cases in which women assume male gender roles (e.g., Groneberg 1986; Asher-Greve 2002: 19–20; Asante 2009; Lion 2018: 239–240).

¹²⁸ Groneberg 1997. For the *assinnu* and *kurgarrû* embodying the dual nature of *Inanna/Ištar*, and engaging in homosexual intercourse as the passive, penetrated party, see Peled 2016: 155–202; Leick 1994, 151–169. The best-known third-gender groups in the palace were the *lú-saĝ*/

was the *gala/kalû* “chanter of (cultic) laments” who in some periods was associated with gender ambiguity (effeminacy) because he performed a task (singing, lamenting) that was originally reserved for women.¹²⁹ While very little is known about the attitudes of the wider society toward third-gender groups, such as stereotypes reflecting their deviation from normative masculinity insinuating homosexuality and prostitution, apotropaic and healing powers are ascribed to some third-gender persons linked with Ištar, who also acted as ecstatic mediums and prophets.¹³⁰

Ancient Greek and Roman traditions know several deities who transcended usual sex/gender binaries (male with androgynous appearance or effeminate features; woman with rather manly characteristics and gods with two sexes). Eunuchs were often regarded as effeminate and associated with the Eastern realm (Assyria, Persia, Scythia).¹³¹ They became a popular feature of Graeco-Roman culture of the court and elites after Alexander’s military expansions. Similar to Mesopotamia, one finds (self-)castrated *galli* priests as part of a Roman syncretic cult who wore women’s cloths, long hair, and jewelry. Roman law, however, distinguished between eunuchs by nature (*spades*) who were allowed to marry and man-made *castrati*.¹³² Studies have pointed to a surprising contrast. In Greek, Roman and Byzantine culture, cross-dressing men were regarded as negative or attuned to homosexuality and eunuchs were disdained as effeminate. Yet, despite their effeminate image they often held positions of great social status and power within the state and the chair, often exclusively gendered male. Moreover, castration (at an early age) became even a pathway to a career in the church or political administration.¹³³ Even in early Christianity self-castration was performed as a spiritual and ascetic shortcut to salvation based on the definition of eunuchs in Matthew 19:12: born eunuchs, made eunuchs, and “those who make themselves eunuchs for the Kingdom of Heaven”.¹³⁴

ša rēši (lit. “attendant”) who served as palace attendants, acted as guardians of the royal women’s quarters or held other high court positions (especially in the Middle and Neo-Assyrian periods), and who were probably eunuchs/castrates but not necessarily regarded as effeminate. Cf. Peled 2016, 203–237, 239–257.

¹²⁹ Peled 2016, 92–145; Asher-Greve 2018: 32–37. Cf. the similarity to the Roman *galli*-priests who were most probably castrates. See Tougher 2008, esp. 7–13, for a survey of Eunuchs in Assyria, China, Achaemenid Persia, Greece and beyond.

¹³⁰ See Maul 1992; Peled 2016: 197–202; Stökl 2012; Svärd and Nissinen 2018.

¹³¹ See Lieber 2022.

¹³² See Roller 1997; Tougher 2008, 8–10; Tougher 2020; Lightfoot 2002; Latham 2012 (on the *galli*-priests).

¹³³ See Ringrose 2003; Tougher 2002, 2008, and 2020; Stevenson 1995; Tolino, Höfert and Mesley 2018; Pfuntner 2020, esp. 280–283; Betancourt 2020, esp. 161–203; Lieber 2022. On Roman masculinity as defined by the penetrator/penetrated binary, see Walters 1997; Williams 2010, 137–175; 177–246, and the pertaining contributions in Hallet and Skinner 1997.

¹³⁴ See Kuefler 2001; Hartney 1999; Wilson 2014; Tougher 2020; Weissenrieder and Dolle 2019, 470–474 and 533–544.

These expanded categories appear similar to the Hebrew terms for eunuchs in rabbinic texts¹³⁵: *saris ḥamah* (congenital eunuch/infertile) and *saris adam* (man-made eunuch/infertile). However, while the later can be translated as “castrated”, either by accident or on purpose, the first term is much broader.¹³⁶ The Tosefta (t. Yev 10:6) defines the *saris* by the lack of pubic hair and a beard by the age of twenty as well as by the presence or absence of certain features regarded male or female (e.g., soft skin, cold body, thin voice).¹³⁷ While their incapability to procreate makes them gender-deviant and excluded them from being regarded as a full male Jewish member of society in rabbinic texts, there is, in contrast to Roman traditions, lesser evidence that they were regarded as completely effeminate. Rather, they were legally included in various spheres that do not require full-blown (i.e., procreational) maleness.¹³⁸ While the condition of the *saris* was seen as incurable, rabbinic text offer some discursive and surgical strategies to reintegrate them alongside other sexually disabled men with maimed genitals.¹³⁹ In some texts, one encounters also men whose physiology temporarily (and miraculously) enabled them to breastfeed their children.¹⁴⁰

Graeco-Roman and Jewish sources also refer to people assigned female who experience (congenital) infertility combined with developmental disorders of their sexual characteristics. For the early Greek and later medical writers, such as Soranus, being female was ultimately marked by menstruation and the ability to conceive. Gender ambiguity was, thus, at times connected with the complete

¹³⁵ As in Greek, the Hebrew has a double-meaning and in many passages in the Hebrew Bible (e.g., Gen 37:36 and 40:2; 1 Sam 8:15, 2 Kings 8:6 and 23:11; Esther 1:10 and 2:15; Daniel 1:7; Jeremiah 34:19 and 52:25) the term *saris* refers, actually, to court officials, servants, or officers – possibly reflecting the role of eunuchs/castrates in ancient Near Eastern courts.

¹³⁶ See Fonrobert 2006, Lev 2004; Strassfeld, 115–150.

¹³⁷ Voice, hairiness, soft flesh and cold quality were important physical markers of women in early Greek and later medical texts and in Graeco-Roman culture at large. Cf. Galen, *On the Usefulness of the Parts*, 14.6–7 (4.159–175 K. = 296–318 Helmreich); See the discussion by Gleason 1995, 55–81, esp. 69f. The male features focus almost exclusively on the ability to urinate in a manly way and on the qualities of the urine (foamy, decomposing) and sperm. Female appearance also looms large in the bathing scene of R. Yoḥanan whose splendid beauty (“your beauty [should be reserved] for women”) entices and deceives Resh Lakish who then, however, is (only) seduced to the study of Torah (b. Bava Metzi’a 84a). Cf. Boyarin 1993, 212–225. On the beauty of Joseph, eunuchs and gender transformation, see Boustan (Abusch) 2002.

¹³⁸ Exclusion of the *saris ḥamah* focuses on questions of marriage, but also legal responsibility but in some cases the explicit inclusion seems to point to an equation of the *saris* with women. See Lev 2004 and 2010; Fonrobert 2006; Kessler 2019, 75–76; Strassfeld 2022, esp. 115–150.

¹³⁹ See Deut 23:2, m. Yevamot 8:2, y. Yevamot 8,2 (9b), and b. Yevamot 76a that list crushed testes (*petzu’a daka*) softened testicles (*meroah eshek/me-ushkan*), and a mutilated or perforated penis or spermatic duct (*kerut shophkhah*). Still a *saris ḥamah* and some of the just mentioned may marry under certain circumstances and they are obligated to certain commandments and rituals in which they may act as representing (and exempting) the congregation. Cf. Preuss 2004, 217–225; Belser and Lehmhaus 2017, 443f.; Kessler 2020, 359–365.

¹⁴⁰ See Genesis Rabbah 30:8 and b. Shabbat 53b. Cf. Kessler 2005, esp. 344–253; Haskell 2012, 29–30; Bregman 2017; Rosenblum 2017.

absence of both or a partial sex/gender-crossing signaled by manly features (e. g., hotness and tight flesh instead of being soft and cold).¹⁴¹ Similar indicators are mentioned in rabbinic discussions of the ambiguous *aylonit* (אֵילוֹנִית) who is considered legally in many instances a woman. According to the Tosefta (t. Yevamot 10:7), the *aylonit* does not sprout pubic hair by the age of twenty, lacks female breasts, a pubic mound and joy from heterosexual sex, or who has a thick/deep voice but thin hair. The Talmud (b. Yevamot 64b) adds infertility and the lack of a uterus. Some scholars even suggest that her genital anatomy has male or male-like features (a penis or a hypotrophical clitoris).¹⁴²

Finally, reinforcing but also transcending gender distinctions and borders functioned also through adornment and performative acts for both men and women. Cross-dressing or “male behavior” can be found in Greek myths and literature as well as in the portrayal of various Egyptian goddesses or the female pharaohs.¹⁴³ While the Bible rules against cross-dressing in Deuteronomy 22:5¹⁴⁴, some interpreters understood this as referring to particular things forbidden to women (e. g., ritual items, armor etc.) or particular female clothing (e. g., veils, headgear) prohibited for men. Others, however, expanded the forbidden female apparel and behavior.¹⁴⁵ Gender-crossing or reversal figures in rabbinic literature also through a combination of corporeal performative acts through which women fulfil male obligations (i. e., circumcision) or they act in ways that conform to male ideals instead of female virtues (e. g., modesty).¹⁴⁶ Cross-dressing and bodily change or suppression of female bodily features (hair, menstruation, breasts) is known from ancient texts as a strategy and chance for women to improve socially. Disguised as men, they could enter into spheres usually confined to men (political, educational and religious institutions) in order to access specific resources and to participate in practices usually unachievable to women. As examples, one can mention (H) Agnodike who is said to have acquired (gynaecological) medical knowledge re-

¹⁴¹ See King 2015; Gourevitch 2013; Bourbon 2016. Soranus, *Gynaecology*, mentions several instances of gender ambiguity, including hypertrophy of the clitoris or the labia.

¹⁴² See Lev 2007 who understands the *aylonit* as the mirror-image of the *saris hamah*. See also Kessler 2019, 76; and Strassfeld 2022, 151–181 on the legal implications. Cf. Preuss 2004, 225–226.

¹⁴³ On cross-dressing in Greek, Roman, and other ancient cultures, see the contributions in Campanile et al. 2017. On Egypt, see also Depauw 2003, 56–58. On early Christianity and late antiquity, see Penella 2013; and Hadjittofi 2016.

¹⁴⁴ “A woman must not put on man’s apparel, nor shall a man wear woman’s clothing; for whoever does these things is abhorrent to the Lord your God.”

¹⁴⁵ See, e. g., m. Shabbat 6 (a woman/man may/should not go out with ...); Sifre Deut. 226; b. Shabbat 94b, Nazir 59a and Makkot 20b that added jewelry, hairstyles, or shaving the body. The Talmud (b. Nazir 59a) seems to be concerned with the mixing of the sexes which might lead to sexual transgressions. Cf. Vedeler 2008; Fox 2009; Lipka 2018; Kraemer 2013. For a survey on cross-dressing in Jewish tradition, see Irshai 2021.

¹⁴⁶ See Kessler 2005. Levinson 2000 mentions Sarah whom Abraham encourage to publicly nurse her son and other children (“her breasts exposed gushing forth like a fountain”) as an example of hyper-femininity transcending behavioral patterns as well as ethnic boundaries.

served to men disguised as an adept of a famous teacher. However, in order to put her expertise to practice she had to reveal her female physiology in order to win over pregnant women as patients who refused to be treated by male doctors. In late antiquity and medieval time, specifically in the Christian traditions, one finds narratives of gender-blurring about women and female saints who spent most of their lives, often regarded as eunuchs, among monks, ascetics and other clergy in male communities.¹⁴⁷

6. A Body of Their Own? –

Female Physiology in Ancient Medicine and Cultural Imagination

Closely related to the concepts of male and female bodies in various ancient cultures is the question whether there are general differences in the affections of women and men. While studies have pointed out the heavily gendered character of medical texts and ancient discourse of the body, ancient medicine from different traditions offered no univocal solution to that conundrum. The author of the early Greek medical treatise *Diseases of Women* (5th/4th century BCE), for instance, criticizes those physicians and laypeople who treat women as if they were suffering from an affection known in men. Instead, according to this text and its title, one should precisely determine the cause of the affection, which is based in the huge differences between the male and female physiology.¹⁴⁸ King has analyzed the early Greek medical approach to the “deceitful female body” that requires to be deciphered by male expert physicians well-versed in the particularities of female anatomy, especially their reproductive organs.¹⁴⁹

Several centuries later and from the perspective of a specific medical school, the answer has changed substantially:

“Accordingly, says Herophilus, there is no affection peculiar to women, except conceiving, nourishing what has been conceived, giving birth, ‘ripening’ the milk, and the opposites of these.”¹⁵⁰

¹⁴⁷ On Agnodike, see King 1986. On cross-dressing Christian women, specifically ascetics and monastics, see Castelli 1991; Davis 2002; Constantinou 2005; Hunt 2019.

¹⁴⁸ See Dean-Jones 2018, 250–252; King 2013a.

¹⁴⁹ See Hippocrates, *On Diseases of Women* 1.62 (8.126 L.): “Ἀμα δὲ καὶ οἱ ἰητροὶ ἀμαρτάνουσιν, οὐκ ἀτρεκέως πυνθανόμενοι τὴν πρόφασιν τῆς νόσου, ἀλλ’ ὡς τὰ ἀνδρικὰ νοσήματα ἰώμενοι· καὶ πολλὰς εἶδον διεφθαρμένας ἥδη ὑπὸ τοιούτων παθημάτων. Ἀλλὰ χρὴ ἀνερωτᾶν αὐτὰ ἀτρεκέως τὸ αἴτιον· διαφέρει γὰρ ἡ ἵησις πολλῶ τῶν γυναικείων νοσημάτων καὶ τῶν ἀνδρώων. For studies of this approach and pertaining therapies, see King 1998, 40–53, 99–113, and 132–156. Cf. Hanson 1991b.

¹⁵⁰ Quoting von Staden’s translation of the Greek text here. See Herophilus T 193.5–7 von Staden: οὐδὲν οὖν ἴδιον πάθος γυναικῶν πλὴν τοῦ κυῆσαι καὶ τοῦ τὸ κυθὲν ἐκθρέψαι καὶ ἀποτεκεῖν καὶ τὸ γάλα πεπᾶναι καὶ τὰ ἐναντία τούτοις. Cf. the probably too generalizing conclusion in Hanson 1990, 314: “The medical writer is projecting upon the woman a man’s experience.”

This fragment of Herophilus' lost treatise *On Midwifery* (4th/3rd century BCE) fore-closes any differences between the sexes with regard to diseases. However, it clearly shows that, in fact, ancient doctors identified several afflictions or conditions which they localized in or connected to those bodily parts or processes which are peculiar to women. Such pathological conditions and physiological processes which are indeed peculiar to women and usually cannot be observed in men were, thus, of crucial importance for ancient medical practitioners, authors and patients.¹⁵¹ Also, modern scholars have explored the diachronic development and reception of certain ideas about female physiology and so-called "women's diseases", which were often thought to be directly connected to the reproductive female physiology.¹⁵²

For instance, ancient Egyptian texts tie a number of very diverse ailments in women to a specific (mal-)condition of the uterine-complex (vagina, womb, ovaries). The *kA.t* or *iwf* (flesh, rather internal, possibly the vagina) figures often in medical texts that recommend remedies to be applied as tampons or through fumigations.¹⁵³ One finds similar vaginal applications (beside oral treatments) in ancient Babylonia, which reflects a focus on the womb in women's diseases related to reproduction.¹⁵⁴ Alternatively, a Late Babylonian texts (5th/4th century BCE) featuring a disease taxonomy that ascribes the origin of different ailments to four cardinal organs (heart, stomach, lungs, kidneys) links reproductive disorders (male impotency and female infertility) with the kidneys, which appear to be associated with diseases specifically in the lower body.¹⁵⁵ Biblical and later Jewish texts mention primarily the birth pangs and other suffering related to the so-called "curse of Eve" (Gen 3:16) as a specifically female experience.¹⁵⁶ Other female ailments were connected to various types of flux or non-menstrual bleeding. This was sometimes accompanied by the expelling of fluids and bodily tissues that posed a challenge of exact identification, especially in the light of religious regulations and purity issues.¹⁵⁷ The Talmudic tradition even knows about a "blood of

¹⁵¹ See e. g., Gourevitch 1984, 53–79; Schubert and Huttner 1999, 182–324. For Mesopotamia, see pertaining discussions in Böck 2013; Steinert 2013 and 2020a. I thank Ricarda Gäbel for this discussion of Herophilus.

¹⁵² See Gilman et al. 1993; King 2004 (on the "disease of virgins"); Flemming and Hanson 1998 suggest a close connection between the brief Hippocratic text *On Diseases of Girls* and *On the Sacred Disease*. Cf. Lieber 2022 on the so-called "feminine disease" that allegedly befell a certain group of male Scythians who through effeminization of their bodies appeared as eunuchs.

¹⁵³ See Pommerening 2023 (in this volume), 146 f., and 152–154. Cf. Audouit 2022.

¹⁵⁴ Other therapies include anointing or bandages, and massage etc. see Böck 2013; Minen 2018; Steinert 2012a; 2014; 2020a; Scurlock 1991; 2014a: 571–619; Couto-Ferreira 2014.

¹⁵⁵ See Geller 2014: 3–26; Steinert 2020b: 174–176.

¹⁵⁶ For specification, see b. Eruvin 100b: menstruation, blood of "virginity", pregnancy, labor pain, hardships of raising children; supplemented by long hair, beastly position while urinating and inferior position during sex. Cf. m. Shabbat 2:6; b. Shabbat 31b.

¹⁵⁷ See Balberg 2014; Neis 2017 and 2019; Fonrobert 2000. For perspectives from ancient Mesopotamia, see Couto-Ferreira and Garcia-Ventura 2013; Böck 2013; Steinert 2012a, 2013, 2017a, 2020a.

desire”, which has been connected by scholars to ovulation and/or female secretion in the wake of sexual arousal.¹⁵⁸

The idea of specifically female pathologies prevailed in Graeco-Roman cultures to varying degrees and is rather well-researched. Various studies inquired into the cultural and medical representation(s) of these gendered conditions in ancient traditions and their wider socio-historical embeddedness.¹⁵⁹ For instance, the colorful but influential concept of the “wandering womb” was established in antiquity and had repercussions well into modern time. Early Greek medical authors regarded procreation as the primary function and pregnancy as the default setting for women. Consequently, in their view, an empty womb – as if it were an independent entity or an alien creature – tends to move through the woman’s body causing harm, especially in the upper body. A similar condition – the problematic upward movement of the uterine complex – is known from Egyptian medicine.¹⁶⁰ Therapies, among them fumigations and hot odorous baths aimed at luring the organ back into its lower position where it could be fixed through insemination and conception.¹⁶¹ The ancient concept of the (wandering) womb was in modern times also (wrongly) connected to a specifically female psychopathological and somatic condition, namely “hysteria”. However, the ancient term *hysterika* refers only to different ailments of the womb without any implications of mental deviation and sexual compulsions.¹⁶²

7. Flow, Fertility, and Fear – Menstruation and the Menstruant in Ancient Traditions

Menstruation in general and in pertinent pathological conditions (e. g., retention) figures as a central element of both the gynaecological and broader cultural discourse of various ancient traditions.¹⁶³ Indeed, menstruation was usually thought

¹⁵⁸ This term figures in b. Niddah 20b. Cf. Meacham 1995, and Stol 2000a, 6–7. For female reproductive fluids in Mesopotamian medicine, see also Steinert 2017: 303–314.

¹⁵⁹ See King 2004; 1996; 1998, 21–39 and 188–204 (green sickness/ “disease of virgins”); Lloyd 1983; Rousselle 1988, 63–77; Solomon 1993; Gourevitch 1995 (*satyriasis* in women); Dean-Jones 2018, 253–258.

¹⁶⁰ Cf. Pommerening 2023 (in this volume), 164f.; and Audouit 2022.

¹⁶¹ Hippocrates, *Places in Man*, 47 (6.344–348 L. = 77, 5–79, 25) focuses on the womb as the main source of women’s ailments. On these diseases and therapies, see *Diseases of Women* 2.123 (8.266 L.) and 2.154 (8.330 L.); and the studies by King 1998, 36–37; Dean-Jones 1994, 73–74, and 2003, 191–195; Hanson 1991, 82 f.; von Staden 1991; Solomon 1993; Faraone 2011; Adair 1995; Bodiou 2022.

¹⁶² See King 1993 and 1998, 195–197 and 205–246; Rousselle 1988, 61–77; Bodiou 2022; Dasen and Ducaté-Paarmann 2006; Lefkowitz 1981. Finzsch 2022 discusses therapeutical use of clitoridectomy as a cure for “hysterical” or “hypersexual” women (masturbating women and “nymphomaniacs”) in (Early) Modern Europe and America.

¹⁶³ For a broader diachronic survey, see Shail and Howie 2005.

to be an important factor of female health that constituted women's very nature as in the early Greek medical term *gynaikeia* (lit. "women's things") or in the biblical expression "the way of women" (*derekh ha-nashim*).¹⁶⁴ This exclusive and gendered view is promoted in a passage of the Babylonian Talmud (b. Niddah 64b) that compares healthy (virgin) women as filled with different types (red, black) and amounts of wine (i. e., blood). Another rabbinic sage states: "As yeast is good for the dough – a great amount of blood is good for women, since it has been taught: 'A woman with much blood – (her) children will be many'".¹⁶⁵

Ancient Egyptian texts understand the lack of menstruation to be caused by an excess of blood in or above the uterine complex – such a condition required various therapeutic interventions. Interestingly, Egyptian (medical) sources display a close lexical connection between "menstruation" and "purification".¹⁶⁶ In a similar fashion, ancient Mesopotamian texts mentioned "a woman's blood" mainly in the context of recipes against unusual or pathological bleeding or flux but also in case of the non-occurrence of (menstrual) blood. Still, several texts suggest that female bleeding was conceptualized (and treated) in analogy to bleeding in men (e. g., nosebleed).¹⁶⁷ Rabbinic texts discuss several therapies for unusual bleeding or other genital discharge in women (and men) – both conditions had severe implications for a person's status of (ritual) im/purity.¹⁶⁸ Moreover, rabbinic texts know of some cases of non-menstrual bleeding or genital flux that are explained as being related to the woman's sexual arousal and longing.¹⁶⁹

¹⁶⁴ Cf. Gen. 31:35, and 18:11. See e. g., Hippocrates, *On Generation*, 4.3 (7.476 L. = 47, 26–28 Joly): "if the menses do not pass, women's bodies become prone to disease [τῶν δὲ καταμηνίων μὴ χωρεόντων τὰ σώματα τῶν γυναικῶν ἐπίνουσα γίνεται]". See also King (1998): p. 29–30. This essentialist conception of menstruation is questioned by Soranus at *Gynecology*, 1.4–6. See Temkin 1991, 16–27. Dean-Jones 1994, 125 f. On the biblical and Jewish anthropology, see Erbele-Küster 2008. For ancient sources, see Weissenrieder and Dolle 2019, 494–498.

¹⁶⁵ Cf. b. Ketubot 10b.

¹⁶⁶ See Pommerening 2023 (in this volume), 160; Frandsen 2007, 82–86; Wilfong 1999.

¹⁶⁷ Cf. Steinert 2023 (in this volume), 249–254, and 277–290. At Hippocrates, *Aphorisms* 5.33 (4.544, 1–2 L.), it is claimed that nosebleed is an alternative way of expelling surplus blood: "in a woman whose menstrual period has stopped, blood flowing out of the nostrils is a good thing [γυναικί, τῶν καταμηνίων ἐκλείπόντων, αἷμα ἐκ τῶν ῥινῶν ῥυῆναι, ἀγαθόν]". Cf. King 1998, 51–58; 72. For a similar gender parallel regarding im/purity of genital discharges (i. e., menstrual blood, semen, and other 'fluxes'), see the regulations on Lev 15 for women and men, and the discussion in Fonrobert 2000; Balberg 2014, 171–174.

¹⁶⁸ See b. Shabbat 110a–b which present a list of twelve different treatments, ranging from potions and poultices to ritual, for a woman with abnormal bleeding or discharge. Since uterine blood implicates a status of (ritual) impurity but other bleeding (e. g., vaginal) not necessarily, b. Niddah 66a describes a method of intra-vaginal self-examination that would clarify the location of the bleeding. The same passage presents also two case-stories about women with bleeding during/after intercourse. Cf. the healing story of the woman with an unusual bleeding who is healed precisely through the active transgression of Jewish laws of ritual impurity by touching Jesus' robe (Mark 5:27–34).

¹⁶⁹ This is called "blood of desire" (*dam himud*). See Meacham 1995.

While several Greek and Roman denominations (καταμήνια, ἐμμήνια, ἐπιμήνια, *menses*) were derived from the monthly regularity of the physiological process, the ancients were well aware that many women would experience other, often more infrequent intervals due to pregnancy, breastfeeding/lactation, changes in diet or various illnesses.¹⁷⁰ Simultaneously, it was also acknowledged that the menses could possibly be painful or accompanied by several ailments.¹⁷¹ According to Greek texts, women were expected to have their first period around the age of fourteen and their menopause between forty and sixty. Similar connections between menstruation and the assessment of puberty (and old age) can be found in ancient Babylonian and Jewish traditions.¹⁷²

Explanations of the physiological process vary in different ancient cultures, but rather rarely occur in ancient Egyptian, Babylonian and Jewish texts. However, scholars have suggested that some ancient Egyptian texts establish a strong opposition between menstruation and the events surrounding the states lacking its occurrences: pregnancy, birth, and death – conceptualized as a rebirth or return to a divine womb.¹⁷³ According to the author of *Diseases of Women*, women's flesh is more porous and softer than men's which causes their body to absorb more fluid which needs to leave the body through menstruation to prevent the woman from becoming sick through the surplus blood.¹⁷⁴ Aristotle interprets menstruation as the excretion of a superfluity which occurs in larger quantity and not as well concocted as in males because women are weaker and colder than men. Menstruation, therefore, is analogous to the male semen, although deficiently so, and this explains why there is no generative female semen.¹⁷⁵ The absence of menstruation during pregnancy was explained by a sealing of the womb (ancient Egypt), and the idea that the surplus blood being used as nourishment for the embryo, first in the uterus and afterwards as blood transformed into breastmilk (Graeco-Roman and Talmudic).¹⁷⁶ Moreover, in the view of Greek medical writers, the onset of the

¹⁷⁰ See e.g., King 1998, 4–5, 29. In the Babylonian Talmud Ketubot 10b the absence of blood, both menstrual and vaginal, after a presumed first sexual intercourse during the wedding night is related to the malnutrition of the bride (and her husband) during a recent famine.

¹⁷¹ See e.g., Aristotle, *History of Animals*. 582b7–9; Hippocrates, *Coan Prenotions*, 537 (5.706 L.), 541 (5.708 L.). Dean-Jones 1994, 125. I thank Ricarda Gäbel for this paragraph.

¹⁷² See Soranus, *Gynaecology*, 1.20.1 (13, 18–25 Ilberg). Cf. Dean-Jones 1994, 126 f., Gourevitch 1984, 91–103. On menstruation as a sign of puberty and the young woman's reproductive capabilities, see Gen 18:11 and the discussion in Philips 2006, 15–28. Cf. also Meacham 2023 (in this volume), and Steinert 2023 (in this volume), 245–249.

¹⁷³ See e.g., Frandsen 2007.

¹⁷⁴ See Hippocrates, *Diseases of Women*, 1.35 (8.82–84 L.). Cf. Schubert and Huttner 1999, 156; King 1998, 29; Dean-Jones 1989, esp. 178.

¹⁷⁵ See Aristotle, *On the Generation of Animals*, 1.19, 726b31–727a30. I am indebted to Ricarda Gäbel for the information added on Hippocrates and Aristotle.

¹⁷⁶ Cf. Pommerening 2023 (in this volume), 159–161, who points out that while milk is thought to be for nutrition of the embryo, it was not necessarily conceptualized as stemming from menstrual blood. The link created between gestation and birth and Job 38:8 (*Who shut up the sea*

menses required imminent intervention in form of marriage and intercourse. For, according to physiological concepts, if a girl who already menstruates remains without sexual contact (and ensuing pregnancy), the excessive accumulation of blood in the womb, which then relocates to various parts of the body, may cause serious harm and will inflict illness.¹⁷⁷

Scholars have explored the cultural embeddedness of menstruation or female bleeding within the broader cultural contexts and meanings of blood, sacrifice and reproduction in ancient (and modern) societies, going beyond the long cherished and widespread idea about a universal menstrual “taboo”.

Ancient Egyptian traditions comprise a continuum of ways to handle menstruation and menstruating women. Similar to the biblical tent of separation, one finds also in Egyptian sources references to a secluded space of the community or within a household for women during their time of menstruation. While menstruation was not generally couched in terms of pollution and impurity, contact with or the presence of menstruating women (or their husbands) in specific realms (tombs, certain sanctuaries) was conceived as negative and potentially harmful.¹⁷⁸ Some scholars have argued that the concept of menstruation as pollution was dominant also in ancient Babylonian sources. Ulrike Steinert argues in the present volume, however, for a more nuanced picture. Accordingly, menstruation is associated with pollution and impurity in some contexts (offerings, deities), but it also is a powerful tool used against evil influences or several ailments.¹⁷⁹

The Greek traditions display a similar ambiguity towards menstruating women and menstrual blood. Several studies have argued that menstruation was mostly not regarded as a ‘taboo’ conveying impurity. Rather, Greek culture created a discourse on menstruation as a social sign and gender marker of different spheres, i. e., female involuntary bleeding vs. male deliberate shedding of blood in battle or for sacrifices.¹⁸⁰ However, other scholars notice a strong association of menstruation with dirt and pollution, at least in the religious sphere, while some traditions admit the ambiguous character of (menstrual) blood and other bodily fluids as both harmful and beneficial.¹⁸¹

Menstruation plays a crucial role in Jewish regulations on (ritual) im/purity, which due to transferability affected both men and women regarding their

with doors, when it broke forth and came out of the womb) in the midrash Lev. Rabbahh 14:4 deploys the same imagery. On absence of menstruation during pregnancy in ancient Mesopotamian sources, see Steinert 2023 (in this volume), 238–248. See e. g., Hippocrates, *Diseases of Women* 1.25 (8.64–68 L.); *On the Nature of the Child* 14 (7.492 L.). See Dean-Jones 1994, 200.

¹⁷⁷ See Sissa 2013, 91–93. Cf. Rouselle 1993, 67–68. See also Salvo 2012 on magical gems against uterine bleedings.

¹⁷⁸ See Frandsen 2007; Janssen 2021.

¹⁷⁹ See Steinert 2023 (in this volume), 233–305.

¹⁸⁰ See King 1998, 75–98; cf. Demand 1994; Dean-Jones 1994; Salvo 2021.

¹⁸¹ See von Staden 1992; Richlin 1998; esp. 201–206; Lennon 2010; Van de Walle 2001.

sexual relations, social contacts, family life, and the (ritual) fitness for certain religious duties (prayer, rituals, sacrifice etc.). Medical aspects interlacing with halakhic rules of im/purity regarding menstruation and genital fluxes have been studied against the backdrop of their discursive function and sociocultural contexts.¹⁸²

The biblical passage in Leviticus 15 discusses the impurity after genital discharges including menstrual blood (*niddah*), semen, and various other, rather pathological fluxes (*zav/zavah*).¹⁸³ Only when no signs of bleeding occur anymore and another period of seven “clean” days, completed by ritual immersion (*mikveh*), is observed, women reenter into a state of (ritual) purity which then allows for (sexual) contact between the spouses.¹⁸⁴ Since the nature of the blood and its origin (e. g., uterine, vaginal, renal) is of crucial importance for determining im/purity, rabbinic sages conceptualized the female genitalia in analogy to a floor-plan, as discussed beforehand.¹⁸⁵

Rabbinic texts show a complex combination of female self-examination (e. g., through testing with rags) and responsibility for her bodily state, as emphasized in the Mishnah (m. Niddah 2:1–3):

¹⁸² Cf. Meacham 1989, 1995, and 1999a; Ilan 1995, 100–105; Fonrobert 2000, 2008. Cf. Hoffmann Libson 2020, who argues for discursive parallels between rabbinic rules for im/purity regarding discharges in mena dn women. For a translation of the tractate in the Palestinian Talmud, see Morgenstern 2006. See Steinberg 1997 for a diachronic survey. See also m. Shabbat 2:6; Midrash Tanchuma, *Vayigash* 1:3.

¹⁸³ See Leviticus 15 and the strong prohibitions of sexual relations with a menstruating woman in Lev 18:19 and 20:18; and Ezek. 18:5–6. Cf. Philips 2006, 43–80; Hieke 2015; Feinstein 2014, esp. 42–99. Impurity due to seminal emission or genital discharge in men occurs also in ancient Babylonian sources. Cf. Steinert 2023 (in this volume), 264f. For Qumran, see Feder 2007; Erbele-Küster 2019; Kazen 2007; Himmelfarb 1999; and Harrington 2004, esp. 94–111. On the rabbinic discourse on menstruation, see Preuss 2004, 122–130; Meacham 1989 and 1999b; Fonrobert 2000 (esp. 15–39); Balberg 2014. For menstruation and im/purity as a field of cultural negotiations in and between late antique Judaism and Christianity, see Vuong 2013; Cohen 1991. The Jewish sources distinguish between different discharges and the length and implications of impurity ranging from one day until up to 80 days. For similar periods (1–40 days) of impurity related exclusion from the cults in Graeco-Roman contexts, see von Staden 1992, 14.

¹⁸⁴ See Leviticus 15:19–33, esp. 19 and 28: *When a woman has a discharge of blood which is her regular discharge from her body, she shall be in her impurity for seven days, and whoever touches her shall be unclean until the evening. [...] (28) But if she is cleansed of her discharge, she shall count for herself seven days, and after that she shall be clean.* The ritual impurity of a man with a bodily discharge or a menstruating woman is ended not only by immersion but also by offering a sacrifice (two doves). On ritual immersion of women, see Ilan 2015; and in general, see Lawrence 2006; Katz 2014; and Adler 2017. Farber (Zev) 2014 and Sassoon 2014 point out that ritual immersion in water was not required in the Bible/Torah, while Feder 2014b assumes it was implied by the biblical text.

See Lev. 18:19 for the prohibition of sexual intercourse with a menstruating woman and its possible difference from impurity-based laws as discussed in Rosenberg 2014; Feinstein 2016.

¹⁸⁵ For this metaphor, see m. Niddah 2:5, y. Niddah 2,4 (50a), b. Niddah 17b or 41b, and the discussion above 11f. Cf. Baker 2002, 47–64; Fonrobert 2000, 49–67. Cf. Fonrobert 2008 on uterine blood and other fluids as identity markers.

Any hand that is diligent to examine [regarding ritual impurity]: among women [this diligent practice of self-examination] is praiseworthy. But among men [such a hand examining the penis] should be cut-off.¹⁸⁶

However, simultaneously, women were not always regarded as reliable and capable of self-control and self-knowledge. Accordingly, Talmudic traditions also established a dense net of male monitoring, supervised examinations and rabbinic advice on issues of menstrual blood and other discharges that ultimately yielded a rabbinic 'science of blood' (stains).¹⁸⁷ Various regulations and narratives in rabbinic texts regarding sexuality and menstruation also appropriated local knowledge and cultural traditions, especially from the Mesopotamian and Irano-Persian realm.¹⁸⁸

Most possibly it was precisely the connection to impurity and the realms of life (giving) and death that rendered menstrual (and parturient) blood of human and animal origin a highly valued remedy throughout several ancient cultures. Ancient Mesopotamian texts refer to blood (urine, and breast-milk) of a menstruant woman as a powerful ingredient or agent in various recipes and incantations for mother or child, but also for non-pregnancy related ailments.¹⁸⁹

Some Graeco-Roman traditions, despite the potentially harmful nature of menstrual blood, argue for its usefulness since it cures dangerous ailments, such as fevers, bites of a raging dog or even epilepsy when applied in a bandage or rubbed into the skin.¹⁹⁰ In Jewish traditions, due to the implied impurity, the use of menstrual blood and related substances was rather limited. Nevertheless, one

¹⁸⁶ Other Talmudic passages (e. g., b. Niddah 57a) assume that women would know best and could actually feel when their menstruation was about to begin. See also the self-examination regarding bleeding during or after sexual intercourse in b. Niddah 65b–66a, where according to Rabbi Yehuذا ha-Nasi “a woman is trusted” regarding her knowledge or feeling about the origin of the bleeding (i. e., uterine vs. vaginal). Other examinations are described in t. Niddah 8:1–2; b. Niddah 12a–b. Cf. Fonrobert 2000, 137–147.

¹⁸⁷ See m. Niddah 2:1–3; b. Niddah 14a. The monitoring system has been extensively explored by Fonrobert 2000, esp. 103–159, and will be discussed in the following (female practitioners). On this see also Münz-Manor 2017, esp. 54–60; Wimpfheimer 2017; and Lehmhaus 2019, esp. 140–146. Balberg 2014, 171–174 argues that the idea of female lack of self-control sits well with Graeco-Roman concepts. On monitoring and even enforcement of ritual immersion, see Ilan 2015. For later, medieval Jewish approaches to the menstruating female body, see Koren 2011. For a comparative study of menstrual blood in Islamic and Jewish law, see Mazuz 2012.

¹⁸⁸ See Secunda 2012 and 2020; Kiel 2016; Mazuz 2014. Cf. also the stricter approaches in the rather late, pseudo-Talmudic work called *Baraita de-Niddah* as studied in Marienberg 2012. For Aramaic Enochic traditions about female impurity and (menstrual) blood, see Fröhlich 2015.

¹⁸⁹ See Steinert 2023 (in this volume), 277–290.

¹⁹⁰ Cf. Von Staden 1992; Richlin 1998; Lennon 2010; Pedrucci 2020c, Salvo 2021, esp. 67–69. See Pliny, *Natural History*, 7.63 f., 17.66 f., 28.23 and 28.70–82 who describes numerous different usages (e. g., medicinal, apotropaic, divinatory) and powers (mostly negative) of menstrual blood. Lennon 2010 (esp. 75–76) refers to Collumnella's and Pliny's warning against menstruating women who may spoil crops or (phallic) vegetables by touching them. However, the destructive power of a young menstruant who ritually circled around a field would save the harvest by killing pest and harmful insects.

finds in few Talmudic texts the use of (human?) menstrual blood and the after-birth or miscarriages of certain animals (cats) as ingredients in recipes, as apotropaic agents or as food for cats.¹⁹¹

8. Pregnancy and Embryology¹⁹²

In various ancient Egyptian and Mesopotamian sources, the woman's role in conception and during pregnancy is reduced to being almost a passive receptacle (only active in abortion or birth). The active male emits the semen into the woman's uterus where it is retained in case of pregnancy. Some Egyptian (mythical and medical) texts even suggest that the gods do all the "work" of conception, gestation and nursing of the embryo during pregnancy.¹⁹³ However, other Egyptian traditions starting already in the early period clearly refer to a reproductive female material – milk – as will be discussed in the following.¹⁹⁴ The Hebrew Bible and late ancient traditions feature several passages about the direct involvement of God in facilitating the conception and gestation of the unborn. Some rabbinic texts appropriate the images of ancient birth myths and delegate the protective role of female deities and the human mother to God. The midrash Lev. Rabbah 14:2 praises God for nursing and freeing the fetus in and from the "prison" of the womb, while the Babylonian Talmud (Niddah 30b) and Midrash Tanchuma see God as teaching Torah or parts of it (dietary laws) to the unborn.¹⁹⁵ In ancient

¹⁹¹ See b. Shabbat 75b (feeding the cat, not recommended). For Mesopotamian examples (magico-medical use of afterbirth), see Scurlock 2014a: 436 (lines 43–45), 662 (lines 118–119).

¹⁹² For a summary on Graeco-Roman views, see Dasen 2013 or Blayney 1992. Cf. also the contributions to the diachronic survey in Dunstan 1990; Dasen 2007; and the sources texts in Weissenreider and Dolle 2019, 463–468, 498–503, and 509–514. For a transcultural and diachronic perspective, see Sasson and Law 2009; Bertrand 1992 (ancient India); and the contributions in Hopwood, Flemming and Kassel 2018; and in Pedrucci 2020e; as well as the survey in Hopwood 2009.

¹⁹³ Cf. Pommerening 2023 (in this volume), 149–152; Roth 2000. Also in Mesopotamian and biblical accounts, conception is most often constructed in terms of an active male pouring semen into a passive female receptacle or through agricultural metaphors (with the male as farmer or seeder-plough inseminating the earth/womb). See Biggs 2000; Böck 2013; Couto-Ferreira 2018a; Leick 1994, 21–54; Simkins 2014; Steinert 2017a, 303–307; Stol 2000a, 4–6.

¹⁹⁴ See Pommerening 2023 (in this volume), 154–156, 159–161, and 165.

¹⁹⁵ Pommerening 2023 (in this volume), 151–152 discusses an incantation, in which Atum as the creator of male/female contributes the "breath". Cf. also Roth 2000; Spieser 2007. For biblical examples, see various accounts of infertile or older mothers in Genesis (e.g., Sarah, Leah in Gen. 29:31), and the divine formation in Psalm 139:13: *For you formed my inward parts; you knitted me together in my mother's womb*; or Eccl. 11:5 (the spirit entering the bones of the unborn), and 2 Macc. 7:22–3 (the formation as a divinely ordered process). See also Grohmann 2009 and 2010a on the biblical entanglement of bodily, individual, social and transcendental realms in those mentioned beforehand and others. Grohmann 2009, 372–375 also points to the connection between the womb (*reḥem*) and divine mercy (*raḥamim*). On rabbinic ideas, see Kessler 2009, 29–46, Preuss 2004, 387–391.

Greek, early Christian and Gnostic texts one can find descriptions that point toward the special role of the (divine) intellect, the spirit-infused soul or the (divine) pneuma at conception and during gestation.¹⁹⁶

Some ancient Babylonian texts (Sumerian and Akkadian) describe conception in agricultural terms as the planting of the seed in the woman's belly in analogy to ploughing and sowing in the soil. Such a model of thought can be found also in classical Greek texts.¹⁹⁷ While biblical and later Jewish traditions also deploy agricultural metaphors (the women as a grain-silo or storehouse), they also describe conception as more active as in Leviticus 12:2 ("when a woman emits seed and gives birth to a male child [...]") with later repercussions in Pauline literature.¹⁹⁸ Other Graeco-Roman, Christian and rabbinic scientific and medical texts fostered the idea of female passiveness. Following Aristotle, several authors describe male semen acting on female blood in the womb in analogy to rennet in milk, which begins to coagulate and to form.¹⁹⁹

The pregnant woman as well as the unborn child were compared in ancient Mesopotamia to a boat and/or its cargo on its passage from conception to birth or as a fish "floating in the amniotic ocean".²⁰⁰ A very similar rabbinic metaphor describes the embryo as a "nut floating in a vessel of water" (Bab. Talmud Niddah 31a). Another preceding passage (Niddah 30b) holds that the interlaced position

On the cultural differences (Graeco-Roman, Ancient Near Eastern, Zoroastrian and Manichean) between embryology in the Babylonian Talmud and Palestinian Midrash (LevR), see Strauch-Schick 2019. For divine involvement in pregnancy and birth, see e.g., Asher-Greve and Goodnick Westenholz 2013; Polonsky 2006; Stol 2000a, 49–90, 109–118; Steinert 2017a, 2017b; Volk 2004.

¹⁹⁶ On ancient Greek and early Christian ideas, see Hanson 1995a; Connell 2021c; and Marx-Wolf 2018; on gnostic ideas, see DeConick 2003. Fröhlich 2015 studies the Enochic myth of the heavenly Watchers who beget children, giants and demons, with human women as a failed divine intervention in embryology that strongly supports the connection between women, blood, birth and impurity. The Watcher's story, thus, is highly critical of the mixing of divine and human or material elements.

¹⁹⁷ See Couto-Ferreira 2015/16, esp. 54f.; 2017; Steinert 2017a, 303–318. For the Greek, see Wilberding 2016a, 332 (where in Aeschylus, Eumenides 657–666, the male "begetter is the parent", but the mother only "preserves the sprout"). Cf. DuBois 1991; King 2018, 43; Hanson 1998 (on specific remedies as "fertilizer" of the womb).

¹⁹⁸ See Dal Bo 2013; Strauch Schick 2023 (in this volume). See also the Pauline terminology that explains Sarah's "giving seed" in Hebr. 11:11. Cf. Stol 2000a, 8; van der Horst 1990. However, Kessler 2009 and Strauch Schick 2017 stress that especially the Midrash Leviticus Rabbah (14) and other midrashic texts tend often to side-line the active role of the mother who is depicted, if at all, as passive, receiving and dependent on male and divine help. Some Talmudic texts (see below) describe a more active involvement.

¹⁹⁹ See Aristotle, *On the Generation of Animals*, 2.4, 739b19–25; Pliny, *Natural History*, 7.15, 7.66; Lev. Rabbah 15:9. For trans-cultural studies of embryos and embryology, see the articles in Brisson and Congourdeau 2008.

²⁰⁰ Haetinen 2017; Stol 2000a, 62–65. On the fish, see Stol 2000a, 10–11. Cf. Bonnet-Cadilhac 1995 (on Galenic depictions); and Playhouse and Aitken 2009 (on early Christian imaginations of the unborn in utero).

of the embryo resembles actually folded writing tablets, which allows for a direct connection between the unborn and the pre-natal study of revealed texts and Jewish lore (Torah). While ancient Mesopotamian sources depict the unborn in utero to be in a liminal and dangerous state of darkness, rabbinic texts credit God with providing light and knowledge.²⁰¹

In the Graeco-Roman medical traditions, pregnancy develops as if automatically from the sexual act, if no deliberate precautions (contraceptives) or efforts post-factum are taken.²⁰² The best time for conception was usually thought to be the beginning or the end of a woman's menstruation.²⁰³ According to Galen's explanation in his *On the Anatomy of the Uterus*, the orifice of the uterine vessels that lead inside the uterus, is open during a woman's menstruation but only able to receive semen at its beginning or its end because semen would otherwise flow out together with menstrual blood immediately.²⁰⁴ Various ancient traditions point specifically to a period after a woman's menstruation as the moment of increased fertility. The biblical and rabbinic im/purity regulations, for instance, require a "waiting period" for sexual relations whose end would, more or less, coincide with the time of ovulation.²⁰⁵

The Aristotelian theory of conception, based largely on the treatises on biology, denied the existence of female seed. Instead, his model assumed that the male provided the hot, active and ensouling element (semen) for conception while the female provided only the cold and passive material (menses) "that can be shaped by men and a container to protect the fetus during its development prior to birth".²⁰⁶ Accordingly, conception, gestation and the inheritance of other bodily

²⁰¹ See the longer discussion in Kessler 2009.

²⁰² See Sissa 2013, 103–114, discussing Hippocrates, *On the Nature of the Child*, 5 (Lonie 1981), and Hippocrates, *Aphorisms*, 5, 62. On contraceptive approaches, see Hippocrates, *Diseases of Women*, 1, 76; *Nature of Women* 98; Soranos, *Gynecology*, 1, 19 and 1, 61–65. Cf. Riddle 1992, critiqued by King 1998; Frier 1994; and Totelin 2009. See King 2013 for the relation between pregnancies and female health. Cf. Maire 2007. See Henry 2005 for philosophical approaches to embryology or embryogenesis.

²⁰³ See e.g., Hippocrates, *On Diseases of Women*, 1.17; Aristotle, *History of Animals*, 7.2, 582b11; Galen, *On the Anatomy of the Uterus* 10.4 (52.1 Nickel), Soranus, *Gynaecology*, 1.36 (25.16–18 Ilberg). See also Flemming 2018 and 2000, 237f.; Dean-Jones 1994, 170–172.

²⁰⁴ See Galen, *On the Anatomy of the Uterus*, 10.4 (50.24–52.1 Nickel); Hippocrates, *On the Diseases of Women*, 1.24; Oribasius, *Medical Collections*, 14.1 (= CMG VI 2,2, p.102). Cf. Dean-Jones 1994/6, 170 f.

²⁰⁵ Cf. the rules in Lev. 15. Lev. Rabba 15, 5 states: "R. Hiyya b. Abba said: A woman absorbs [semen] only after her menstruation, indeed shortly after, particularly if it is to be a male child." Cf. b. Niddah 31b. Mesopotamian women's health care texts do not contain statements about the timing of intercourse in correlation with a woman's menstrual cycle. A few hemerological texts include recommendations for specific days of year when conception was believed to be guaranteed (Steinert 2017a: 306 n.59). For ancient Babylonian birth prognoses (fertility/pregnancy tests), see Reiner 1982; Scurlock 2014a: 582–585; Steinert 2015: 107–109; Geller 2021, 345–346. On birth prognoses in the Hippocratic aphorisms and other texts, see Hanson 2004.

²⁰⁶ Soardi 2023, 319 (in this volume). See *ibid.*, 307–321. Cf. Soardi 2018; Connell 2020; Le-febvre 2016.

features or character traits becomes an arena of competition: if the hot male element could not overpower the cold female element, a girl would be born and/or traits of the mother would dominate.²⁰⁷ In contrast to the Aristotelian theory, in early Greek medical texts and Galenic thought, male and female both contribute generative semen, which need to be mixed together and infused with *pneuma* in the uterus. The uterus holds this mixture without letting it flow out again. Still, the male contribution is regarded as superior and more dynamic.²⁰⁸ Earlier Greek texts and possibly ancient Babylonian sources also recognize female seed or sperm as the material contribution of women at conception.²⁰⁹ As mentioned before, one finds the same idea in biblical and rabbinic discussions (Lev. 12:2: *when a woman emits seed and gives birth to a male child*). Based on that verse, the later Talmudic texts emphasize the important task of men who seek male offspring to please their wives in order to climax and emit seed first.²¹⁰ A similar idea connecting heat and (female) pleasure or sexual climax with facilitating (any) conception can be found in the Qumranic Genesis Apocryphon, probably based on earlier traditions.²¹¹

An ancient Egyptian papyrus (3rd century BCE) presents an alternative to a passive reception of male seed – namely, the contribution of female milk:

²⁰⁷ See e.g. Aristotle, *On the Generation of Animals*, 1.20, 729a 10–12. See Connell 2016, esp. 91–160; Kosman 2010; and the contributions in Föllinger 2022. This idea somehow interferes with his understanding of female sexual discharge as contributing to conception and gestation. For more details on the “one-seed theory”, see Dean-Jones 1994, 176–193; Wilberding 2016a, 332; Rashed 2019. Cf. also Sissa 1983. On the determination of the sex of a future child and ancient conception of male and female bodies, see Mulder 2021.

²⁰⁸ See e.g., Hippocrates, *On Diseases* 4 (7.542 L.), *On Generation*, 5 (7.476 L.), *On Diseases of Women*, 1.17 (8.56–58 L.), *On the Nature of the Child* 12 (7.486–488 L.), Galen, *On Semen*, 2.1.12–14 (4.595–596 K. = 146, 14–16 De Lacy), *On Semen* 1.7 (4.535–539 K. = 86.9–90, 6 De Lacy), 2.4 (4.620–625 K. = 172, 1–178, 15). On embryology in general, see Galen, *On Semen*, *On the Formation of the Fetus*, *On the Anatomy of the Uterus*, *On the Seven-Month Infant*. Cf. Dean-Jones 1994, 170–176; Connell 2000; Boylan 1986; Nickel 1989; Lopez Ferez 2012; Wilberding 2016a; Flemming 2018; Bourbon 2017.

²⁰⁹ Cf. Stol 2000a, 7–8, and the critique by Biggs in Couto-Ferreira 2015/16, 53 f.; but see now Steinert 2017a: 307–314 (for female “fluids” and “semen”); Dean-Jones 1994, 148–150; King 2018, 45–46. For a comparison between Aristotelian, early Greek (‘Hippocratic’) and Galenic approaches, see Preus 1977 and 1983; Boylan 1984; Nickel 1989; Li Causi 2005; Connell 2000 and 2020; Lo Presti 2014. For relevant texts on conception, see Schubert and Huttner 1999, 98–148 and 326–342. Flemming 2021b evaluates these and other these approaches.

²¹⁰ See b. Berakhot 60a: “If a man emits seed first, [the woman] gives birth to a female [child]. But if the woman emits seed first, she gives birth to a male [child].” This Talmudic text, however, reverses the momentum of competition and conquest that prevail in Greek medicine. It is, precisely, the active female contribution to conception that guarantees the formation of a male child. Cf. Preuss 2004, 173–178; Kessler 2009; Lepicard 2010, Kottek 1989, 305 f.; Bar-Ilan 2009; Grohmann 2010b. For Talmudic and Greek ideas on female pleasure, see Dean-Jones 1994, 159 f.; and Strauch Schick 2023 (in this volume) 335–339.

²¹¹ See Fröhlich 2011; van der Horst 2012; Quick 2021.

“As for his flesh and his skin: ⟨they⟩ were produced by his mother from her milk. As for his bones: ⟨They originated⟩ from the semen of his father.”²¹²

In Egyptian texts, female milk, functions as the specific building material of human flesh, specifically of the skin, probably through an analogy with the skin formed on the surface of the milk. The women’s milk represented the contribution of the goddess Isis in the myth of procreation and was physiologically thought to originate in the spine.²¹³

In rabbinic literature (b. Niddah 31a) one finds a similar connection between specific parts of the embryo and the material that men and women contribute but with another analogy of colors between the basic substances and the human parts:

There are three partners in a man: The Holy One, blessed be He, his father and his mother.
1- His father plants the white [substance] from which the [child’s] bones, sinews, nails, the brain in his head and the white in his eye are formed.

2- His mother plants the red [substance] out of which his skin, flesh, hair, blood and the black of his eye are formed.

3- And the Holy One, blessed be He, gives him the spirit, and breath, the features of the face, knowledge, understanding and wisdom, eyesight, the hearing of the ear, the speaking of the lips and the walking of the feet.

When his time to depart from the world comes, the Holy One, blessed be He, takes away his share and leaves the share of his father and his mother with them.²¹⁴

This tradition assuming three partners in creation of human life, however, seems more in line with Greek ideas (Aristotle, early Greek medical texts), where the mother contributes (menstrual) blood and is responsible for body’s red substances (blood, the soft tissues or fleshy parts), while the father’s semen comes from and forms the ‘white’ parts.²¹⁵ Still, the mix of male and female ‘raw material’ is perceived as incomplete without the divine element. God adds what, in fact, gives life and sensation to the body (breath, spirit/soul, hearing, speech, eyesight, and movement) and what characterizes the human individual (facial features, understanding and wisdom) – an idea that was heavily debated among Christian authors.²¹⁶ Accordingly, when someone dies, the Creator takes back his parts and

²¹² Pommerening 2023 (in this volume), 155 (based on the edition by Vandier 1961, pl. 12). Cf. the rest of this discussion, 154–156; and Pommerening 2015; Frandsen 2007, 105.

²¹³ See Pommerening 2023 (in this volume), 149–150 and 155.

²¹⁴ Translation by Kiperwasser 2019, 404–406. Two later traditions, Kohelet Rabba 5:10 and the *Sheiltot*, offer longer variants.

²¹⁵ This last idea and the analogy of colors and bodily substances can be found in Galen, *On Semen*, esp. 1.5.11, 1.11.1–2. Aristotle promotes the idea that male semen develops from blood, which then connect with female (menstrual blood). On the nutritive function of procreation in Aristotle, see Lennox 2021. Cf. also Steinert 2012b, 129–131; Steinert 2017a: 309–310, comparing the three parts in creation with the “three thirds” constituting a person according to passages in the Babylonian *Gilgamesh Epic*.

²¹⁶ See Congourdeau 2018, 116–118 who refers to the opposing ideas of divine ensoulment (creationism) and ensoulment through the human semen (*traducianism*). Cf. Bertrand 2005; Pouderon 2005. For sources, see Weissenrieder and Dolle 2019, 593–606.

just the material bodily substances remain.²¹⁷ Ancient Mesopotamian texts feature the creation of bones from the “fluids of intercourse” (semen), while the body of the baby is created from the (mother’s) “flesh of the muscles”.²¹⁸ Shana Strauch Schick, in this volume, points to possible differences between rabbinic sources that can be partly explained by their cultural surroundings and time of emergence. Accordingly, while earlier Palestinian texts argue for female passivity and a powerful male seed with active divine intervention, later passages in the Babylonian Talmud prefer male and female contribution at conception. The assumed absence or presence of female seed played a crucial role for rabbinic discourse on genital fluids, masturbation and (menstrual) ritual im/purity.²¹⁹ In early Christian traditions, one finds an interesting reversal of the gender roles in reproduction. Instead of focusing on male sperm, these texts imagine a collaboration between God as the ensouling force and the mother as involved in active formation of the unborn, with a clear emphasis on the importance of the female contribution.²²⁰

In Greek texts one finds a great variety of opinions about the actual process of gestation. According to several ancient Greek thinkers, the bodily development starts with the heart, while the Stoics, for instance, thought that the whole body emerges at once and grows over time.²²¹ Rabbinic discussions reflect two different views, one sees the navel as the center from which the rest of the body emerges, while other held the opinion that foetal development starts from the head. However, it is concluded that the gestation does not start from the “hard” material, namely the sinews and bones, since that might could cause harm to the mother from the inside.

In Egyptian, Greek and other traditions one notices the idea that during pregnancy the sexual organs or the womb of women were sealed or blocked in order to hold and nurture the child, which also caused the menstruation to cease temporarily.²²² Ancient medical texts convey the theory that during pregnancy the embryo was nourished through menstrual blood but also the nourishment via the umbilical cord was acknowledged.²²³ It is also in connection with the views about the nourishment of the embryo that the expectant mother was said to be pale and

²¹⁷ For close parallels, see y. Berakhot 9:1 (12d); y. Kil’ayim. 8:4 (31c). Cf. the in-depth discussion in Kiperwasser 2019. But see the critical assessment by Kessler 2009, 102–109, who argues that most of these traditions and other texts (e. g., Lev. R. 14) actively seek to diminish the involvement of women and emphasize the role of men and ultimately God in the creation, conception and sustinment of the unborn. See also Hasan-Rokem and Yuval 2017 and 2021 on embryology and birth in Leviticus Rabbah.

²¹⁸ See Stol 2000a, 10–11. For a new interpretation, see Steinert 2017a: 308–310.

²¹⁹ See Strauch-Schick 2023 (in the present volume, 323–346).

²²⁰ Cf. LaValle 2019.

²²¹ See Tieleman 1991.

²²² See Böck 2013; Steinert 2013; 2017a: 308–310 and *infra*.

²²³ See e. g., Hippocrates, *On the Eight-month Infant*, 3.5 (7.456–458 L. = 86, 13–15 Gresenmann), Galen, *On Semen*, 1.6.7 (4.535 K. = 86, 2–3 de Lacy), and the discussion in Dean-Jones 1994. For Egyptian texts, see Pommerening 2023 (in this volume), 159–161.

weaker because much of her blood flows to the embryo.²²⁴ Several ancient traditions mention the pregnant women's craving for their favorite or unusual food-stuffs.²²⁵ A rabbinic discussion about food restriction on the 24-hour fasting on the Day of Atonement (Yom Kippur), explicitly exempts pregnant women from those rules: "If a pregnant woman smelled [food], one feeds her until she feels restored (lit. "until her soul returns to her"). The later Talmudic discussion extends this leniency even to non-kosher, i. e., ritually unfit food in severe cases.²²⁶

Ancient Mesopotamian and Hebrew sources describe the formation of the unborn in terms of "clotting", "coiling", "weaving/knitting" (Psalm 139/ Job 10:9–11), "pottery", "clothing" and "curdling" (Job 10:11). Its growth was described schematically through a regular monthly increase in size measured in "barley corns" and "fingers" up to its birth (when it reached a size of one cubit or ca. 50cm). In addition, the woman was attributed with an active role in accepting the semen in the womb and in the steps of formation.²²⁷ Ancient Graeco-Roman medicine delineates a gradual process from semen, flesh and blood, into an embryo after about 40 days, and, eventually, into a child.²²⁸ The earlier discussion in Aristotle contrasted 40 days for the male with 90 days for the female fetus, while early Greek and later medical texts offered ranges between 30 (male) and 42 days (female).²²⁹ Rabbinic literature shows interesting parallels, when Bab. Talmud Berakhot 60a advises for specific prayers during pregnancy:

1. For the first three days, one should ask for [divine] mercy that [the seed] will not decompose.
2. From three to forty [days], one should ask for [divine] mercy that [the fetus] will be male.
3. From forty days to three months, one should ask for [divine] mercy that [the fetus] will not be a compressed fetus (סנדל, lit. 'sandal').²³⁰
4. From three to six [months], one should ask for [divine] mercy that [the fetus] will not be stillborn.
5. From six to nine [months], one should ask for [divine] mercy that [the fetus] will come out safely.

²²⁴ See e. g., Hippocrates, *Diseases of Women* 1.34 (8.78–82 L. = 332 Schubert). See also Aristotle, *History of Animals* 7.4, 584a10–17).

²²⁵ See Stol 2000a, 9–10, on the consumption for Sweet Herb during gestation in Sumerian texts. Cf. Gourevitch 1996 ANRW II 37/3, 2110–2112 on Graeco-Roman attestations.

²²⁶ For Hippocratic ideas on that, see the preceding note. For the rabbinic texts, see Mishnah Yoma 8:5 and Bab. Talmud Yoma 82a.

²²⁷ Cf. Stol 2000a, 9–16; Couto-Ferreira 2015/16, 55–67; Steinert 2017a: 316–318, 320–322.

²²⁸ Cf. Hanson 2008; Wilberding 2016a. According to King 1990, early Greek medical texts seem to follow a model of two stages and differentiate between the semen or fluid and the child.

²²⁹ Aristotle, *History of Animals*, 7.3, 583b2–12; Hippocrates, *On the Nature of the Child*, 18 (7.498–506 L.); Hippocrates, *On Nutriment*, 42, (9.121–114 L.). See also Galen, *On Semen* 1.4.34–38; *On the Formation of the Foetus*, 3.9–10. Galen, in his extant writings, does not discuss the chronology as much as earlier authors. Cf. Hanson 1992.

²³⁰ On this particular formation of the unborn, see Dal Bo 2021 and Meacham 2023 (in this volume) 353–358.

In general, rabbinic traditions agree on a formation and a completed sexual differentiation between male and female after 40 days (on the 41st day), which Philo connects to the importance of the number 40 in humanity's and Israel's salvation history. Some rabbis and passages distinguish, however, between 41 days for the male and 81 days for the female unborn.²³¹ Some texts base their speculations even on purported empirical tests through dissection commissioned by some non-Jewish rulers (e. g., Cleopatra) on their female slaves. Still, those experiments seem to support both ideas.²³² Different ancient traditions assume that male embryos reside on the right-side and female embryos on the left side of the womb.²³³ Furthermore, Mesopotamian diagnostic texts knew various other bodily signs that may point to the sex of the future child but also to the course of pregnancy.²³⁴

Closely connected to fetal development was the question of the beginning of life, personhood or ensoulment, which was discussed in several ancient traditions. Ancient Mesopotamian sources apparently favored the moment of birth as the beginning of the embryo's life as a transition from the darkness of the womb into the light.²³⁵ Among Greek authors, scholars have pointed to a broad spectrum of ideas about animation and the status of the embryo. Some understood the embryo in terms of a pre-human, rather plant-like being. Others held that the beginning of sensation and motion constitutes a gradual transformation into an animated human being. The exact moment of ensoulment was disputed and ranged from the moment of conception (Platonic and Pythagorean thought) to the moment of actual birth (Presocratics/Stoics).²³⁶ Similarly divergent ideas can be found in rabbinic texts that assume the soul entering the child at birth, while other passages agree on a soul within the unborn with whom God interacts intellectually in several ways.²³⁷ Various Christian thinkers agreed with Aristotelian ideas about ensoulment taking place once the embryo acquired human form, while others even saw its starting point at conception (e. g., Tertullian, Gregory of Nyssa).²³⁸

²³¹ Cf. m. Niddah 3:7. Philo mentions the 40 days of Moses' revelation on Mount Sinai or the 40 days of the great deluge. Cf. Kottek and Paavilainen 2015/16. Philo also mentioned a difference between 40 and 80 days for the differentiation of the sexes. Cf. Kottek and Paavilainen 2015/16, 105. See the discussion in Kottek 1981; Kessler 2009, 68–76.

²³² Cf. t. Niddah 4:17; b. Niddah 30b. On the empirical testing, see Meacham 2000; Shinnar 2021. Cf. similar tests in the Hippocratic *Nature of the child and Fleshes*; HHanson 2008, 96 f.

²³³ See the discussion of Parmenides and other authors in Kember 1971.

²³⁴ Cf. Stol 2000a, 193–208; Couto-Ferreira 2014. Similar signs appear in Hippocratic texts, such as *Aphorisms* 5.42 (4.546 L.). Cf. Hanson 2008, 98. Also Hippocrates, *On Superfetation*, 19 (8.486 L.) assumes that a male fetus is healthier for the mother.

²³⁵ Cf. Couto-Ferreira 2015/16.

²³⁶ Galen, *On the Formation of the Fetus*, 6.30 (4.700 K. = 104, 12–14 Nickel) is undecided. Cf. Dean-Jones 1994, esp. 176–193 (Hippocratic concepts); Congourdeau 2007 and 2018; Hanson 2008; and Dasen 2013 for a survey. On Neoplatonist views, see Wilberding 2011, 2015, and 2016b; and the contributors in Brisson et al 2012.

²³⁷ Cf. Menachot 99b; Kessler 2009; Kiperwasser 2019; Doroftei 2018.

²³⁸ See Congourdeau 2018, 113–115. On Tertullian, see Barr 2017.

According to early Greek medical writers, the duration of a pregnancy was normally thought to amount to 280 days, but generally durations from six to eleven months were discussed in medical texts.²³⁹ Also rabbinic tradition assumes nine months, or about 270 days as the usual length, often parsed in three months periods (trimester).²⁴⁰ In line with the conceptualization of the woman's body as a building, a Talmudic tradition states:

"[In] the first three months [of pregnancy], the fetus inhabits the lower level/room [in the womb?]; [in the] middle [three months], the fetus inhabits the middle level/room; [and for] last [three months], the fetus inhabits the upper level/room. When the time has come for the fetus to emerge, it turns upside down and emerges. This is [the cause for] a woman's labor pains."²⁴¹

Scholars have pointed to a shared concept in both Graeco-Roman and late antique Jewish sources that affirm seven or nine months of gestation, but question the viability of children born after eight months. Several Greek and Jewish traditions connect seven-month children to gods, eminent biblical figures or other cultural heroes, while Graeco-Roman sources ascribe a mathematical or mythical perfection to the number seven. The rabbinic texts solve the viability of eight-month children by suggesting that the unborn babies are either created as seven-month or nine-month children. While the latter born too early will die, those fully gestated after seven months but born in the eighth month would survive.²⁴²

²³⁹ On the 280 days, see e. g., Hippocrates, *On Flesh*, 19. Cf. King and Engelhofer 2006. On varying theories, see Hippocrates, *On the Nature of the Child*, 19 (7.534–538 L.); Pliny, *Natural History*, 7.4.38–40 (cf. Flemming 2000, 152); Aristotle, *History of Animals*, 7.4, 483b32–584a2. Cf. Dasen 2013, 23–24; Gourevitch 1984, 148–157.

²⁴⁰ Nine months are mentioned in m. Yebamot 4:2 Gen. R. 53:6; Lev. R. 14:3–4 and 31:8; Koh. R. 12:10; b. Sota 20b; b. Yebamot 37a and 80b; and Niddah 8b, 24b, 27a, and 31a.

²⁴¹ See Bab. Talmud Niddah 31a, which also explains correspondingly that in the first trimester intercourse could be harmful for mother and child, in the middle trimester difficult for the woman, and in the last trimester beneficial for woman and fetus. Cf. Kottek and Baader 2000; Kessler 2009, 73; Lepicard 2010. For Greek traditions on the seven chambers of the womb, see Kudlien 1965.

See also Aristotle, *History of Animals*, 7.4, 483a3–24; and specifically Soranus, *Gynaecology* 1.56 (40, 8–41, 14 Ilberg) who warns against any intercourse during pregnancy. Mesopotamian diagnostic texts contain similar passages advising on harmful and beneficial months (or days) of intercourse during pregnancy, which however, use a differing scheme based on numerological considerations. Cf. Stol 2000a, 201–202; Scurlock and Andersen 2005: 265–267; Minen 2018: 190–193. I owe these references on Mesopotamian medicine to Ulrike Steinert.

²⁴² See Gen. R. 14:2 and 20:6; t. Shabbat 15:5; y. Yeb. 4 (5c–d). Cf. the discussion in Preuss 1911, 456–457; 2004, 383–384 and 393–394; Kessler 2009, 74–76. Van der Horst 2015/16 discusses rabbinic traditions on Isaac, the prophet Samuel, and Moses, but also on Jesus and Mary in the NT and early Christian texts. One may add here the protagonist of the medieval *Alphabet of Ben Sira*, a witty child born after seven months fully equipped with teeth and speech, who refers as his model to biblical prophets and Talmudic sages who were miraculously conceived. For the Greek view, see Hippocrates, *On the Seven-month Infant* and *On the Eight-month Infant*; and the discussion in Hanson 1987.

Another account of a gradual gestation process can be found in an Egyptian myth about the conception of the god *Toth* through rape. The pregnant woman shortened her pregnancy through abortifacients. Consequently, the child enters the world not fully-developed as a human but in the shape of an ape (baboon).²⁴³

The close connection between mother and embryo is nicely phrased in the “*On the Nature of the Child*” attributed to Hippocrates, where we read the following: “And in whatever condition the mother is – be it healthy or sick –, in the same condition is also the child.”²⁴⁴ This implies also a heightened awareness and responsibility of the mother for the child that was in several cultures legally seen as belonging to the father. Many Graeco-Roman authors (Plato, Aristotle, early Greek medical texts, Pliny the Elder, Soranus etc.) agree that the unborn depends on the mother’s nutrition, while being endangered by her unhealthy actions and conditions (e. g., illness).²⁴⁵ Some ancient traditions suggest a rather healthy diet and a moderate regimen of both physical exercise and sexual activity for expecting parents during pregnancy, or even as a precondition for healthy procreation.²⁴⁶

In fact, a whole ancient branch of knowledge, teratology, was concerned with exploring the teratogenic causes of ‘wondrous births’ and congenital disorders. In general, these traditions offered a (moralizing) connection between non-normative behavior producing (anatomically or mentally) non-normative offspring.²⁴⁷

²⁴³ Cf. Pommerening 2023 (in this volume), esp. 149–151.

²⁴⁴ See Hippocrates, *On the Nature of the Child* 11/22 L. (7.514 L. = 336 Schubert): “and whatever degree of health or weakness she possesses, the fetus will have the same [καὶ ὅπως ἂν ἡ μήτηρ ἔχη ὑγείης ἢ ἀσθενείης, ὧδε καὶ τὸ παιδίον ἔχει],” Cf. Aristotle, *Politics*, 7.16, 1335b12 f.

²⁴⁵ See the examples in Pliny, *Natural History*, 30.123, 20.134, and 30.123 referred to by Dasen 2013, 27. Cf. Israelowich 2020 on diet and regimen during pregnancy in Soranus’ work. See also Gourevitch 1984, 155–157; Gherchanoc 2020a; Mulder 2021. A similar (male) concern for monitoring pregnant women’s physical and psychological condition and her habits can be seen in the diagnostic texts from Mesopotamia concerned with women (see Minen 2018: 188–193; 2020). I am indebted to Ulrike Steinert for pointing me to this reference.

²⁴⁶ See Aristotle’s advice in his *Politics* which is discussed in Soardi 2023 (in this volume), 315–317. The Talmud in b. Niddah 31a states: “The Sages taught [in a baraita]: During the first three months [of pregnancy], sexual intercourse is difficult and harmful for the woman and the offspring. During the middle three months, intercourse is difficult for the woman but beneficial for the offspring. During the last three months, sexual intercourse is beneficial for the woman and the offspring; as a result of it the offspring is found to be strong and fair skinned.” Cf. the Jewish approach discussed in Preuss 2004, 384–385. Cf. Dean-Jones 1992; Mulder 2021.

²⁴⁷ See Bien 1997; Wilberding 2014; Wyszynski 2001; Graumann 2013. Cf. Stol 2000a, 158–170; De Zorzi 2014; Couto-Ferreira 2013, 65 f., and Dasen 2013, 23 for monstrous births and ill omens in ancient Babylonia (*shumma izbu*) and Graeco-Roman traditions. Cf. Hamori 2013 for structural parallels between the interpretation of unusual pregnancy or birth as *omina* in the Bible and in the ancient Near East. See also Stol 2000a, 166–167 for a similar association between tabooed forms of intercourse that provoke the birth of an ecstatic or madman.

Talmudic rabbis presented a related idea in a list:

1. A Woman who has intercourse in a [public] mill will have epileptic children.
2. [A woman] who has intercourse on the ground will have children with dislocated legs.
3. [A woman] who treads on donkey's blood will have children with scrapings (a skin disease).
4. [A woman] who eats mustard [seed] will have gluttonous children.
5. [A woman] who eats cress will have blear-eyed children.
6. [A woman] who eats [fish] brine will have children with sparkling eyes.
7. [A woman] who eats clay will have ugly children.
8. [A woman] who drinks 'beer' will have dark-skinned children.
9. [A woman] who eats meat and drinks wine will have healthy children.
10. [A woman] who eats eggs will have children with big eyes.
11. [A woman] who eats fish will have graceful children.
12. [A woman] who eats parsley will have bright children.
13. [A woman] who eats coriander will have fleshy children.
14. [A woman] who eats etrog²⁴⁸ will have fragrant children.

(b. Ketubbot 60b–61a)

Similar to ancient Mesopotamian sex omens, this account refers to the circumstances of the sexual act, contact with substances and nutrition as the factors affecting the future child's character or bodily constitution.²⁴⁹ In addition, certain sensations were understood as affecting the mother during conception or pregnancy will shape the physical appearance, mental faculties and character of the fetus.²⁵⁰ Specifically, those women pregnant with a female child were thought to be prone to various longings and also will look less healthy and experience more pain during pregnancy and childbirth.²⁵¹

²⁴⁸ Etrog is the Hebrew term for a fragrant yellow citrus fruit (*citrus medica*) which the Talmud traditions interpreted as being one (namely fruit of the *hadar*-tree) of the four species (palm frond, willow and myrtle branches) used during the festival of Sukkot.

²⁴⁹ Mesopotamian sex omens link the specific circumstances of the intercourse to different effects – such as various diseases, bodily, the sex of the conceived child, the prognosis for a healthy pregnancy. Cf. Guinan 1997. A direct tit-for-tat relation between specific sexual practices and various congenital disabilities can be found in b. Nedarim 20a: “R. Yoḥanan b. Dahabai said: “The ministering angels told me four things: 1) People are born lame because they (their parents) ‘turned their table’ (i. e., practiced some other position/sort of cohabitation); 2) [People are born] mute, because they kiss ‘that place’ (i. e., the sexual organs); 3) [People are born] deaf, because they talk [lewdly] during sex; 4) [People are born] blind, because they look at ‘that place’ (i. e., the sexual organs).” On this passage, see Bickart 2016; Lehmhaus 2022a.

²⁵⁰ See e. g., Soranus, *Gynaecology*, 1.39, where Soranus claims that looking at monkeys or beautiful statues will produce an offspring in their likeness. Cf. Bien 1997: 79–84 (during conception) and 130–42 (during pregnancy); Dasen 2013, 27 f.; Maire 2004a. A Talmudic tradition in y. Ḥagigah 2:1 (77b–c) explains the later apostasy of a famous scholar via the smell of sacrificial wine and meat from gentile temples that drew his mother's attention during pregnancy. See Tziraki-Segal 2009.

²⁵¹ See Aristotle's remarks in the *Historia animalium* as discussed by Soardi 2023 (in this volume), 307–321. On the “culpability” of women for the determination of sex of their offspring and the teleology of male fetuses, see Mulder 2021; Gherchanoc 2020a.

The discourse on conception and embryology was in most cultures deeply enmeshed in a net of ideas about fertility and infertility, or the various dangers looming during conception and pregnancy.²⁵² Ancient Egyptian and Babylonian tradition feature on one hand a corpus of incantations and ritual practices (e. g., amulets) intended to guarantee a safe pregnancy and an easy birth that would take place at the right moment (i. e., on an auspicious day without a bad omen), while other texts display a medico-ritual approach to correct infertility. On the other hand, medicinal (pharmacological) approaches were used to facilitate conception and to secure pregnancy or the opposite (i. e., to induce abortion).²⁵³ Scholars have studied parts of what other ancient traditions knew as pharmaceutical applications, such as potions from herbal and other substances, but also vaginal sponges and enemas, that would either promote and secure pregnancy or serve as contraceptive or even abortifacient. However, other approaches, such as rituals, spells or amulets that were often inextricably intertwined with the former applications and applied by the same experts were historically and scholarly sidelined. Graeco-Roman sources and artefacts, often mixed with Egyptian elements, point to votives, rituals, gems and spells that secured divine protection for the child in utero.²⁵⁴ Jewish tradition refers to amulets or talismans worn around the neck or on the body as protection against miscarriage. Various medical authors and rabbinic texts warn against the contraceptive or abortive (side-)effects of certain herbal remedies.²⁵⁵

9. Childbirth²⁵⁶

Most traditions, from the Bible and Akkadian texts to Graeco-Roman and later works, address the crucial role of the parturition process as a liminal event with a huge potential for crisis and death. The Midrash Tanchuma holds that women die in childbirth because “Satan always brings charges against a person in a time

²⁵² See e. g., Gourevitch 1984, 158–168, and 2013; Hong 2012; Bourbon 2016; Carroll 2019; Ecça 2020; Flemming 2013b; Baden 2017; Moss and Baden 2015; Budin 2015; De-Whyte 2018.

²⁵³ Cf. Böck 2013; Couto-Ferreira 2013, 2014; Haetinen 2017; Scurlock 1991, 2014b; Stadhouers and Steinert 2018; Steinert 2017a, 2020a; Abusch et al. 2020: 50–93. For ancient Egyptian approaches, see Marshall 2015 (ch. 2). For later approaches to in/fertility in the Islamic world, see Verskin 2020, esp. 117–204.

²⁵⁴ Cf. Richlin 1998, esp. 213–216; Dasen 2005a and 2013, 28–33; Aubert 1989, Hanson 1995b; Gaillard-Seux 1998; Frankfurter 2006; Flemming 2016 and 2017; Tsatsou 2019; Perea Yébenes 2007; Carroll 2021; Zimmermann Kuoni 2021 (Aegean and Minoan healing cults and obstetrical practices). See also other contributions in Draycott and Graham 2017.

²⁵⁵ For a general survey, see the much debated work of Riddle 1992 and 1997 (critically reviewed by King 1998; Frier 1994; and Totelin 2009). Cf. Kapparis 2002; Laale 1993; Hopkins 1965; Gourevitch 1984, 197–205; Hin 2011. For the Jewish tradition, see Amit 2017; Preuss 2004, 385–386. Cf. b. Shabbat 66b. On early Christian traditions in comparison, see Gorman 1998.

²⁵⁶ For a cross-cultural survey, see the contributions in Pedrucci 2020e. For biblical and ancient sources, see Weissenrieder and Dolle 2019, 504–508.

of danger”.²⁵⁷ Accordingly, people saw a great need for both divine protection and (medical) assistance, mostly from other women, not necessarily professional practitioners.²⁵⁸ By contrast, some early Christian traditions, although with a heavily gendered concept of childbearing and motherhood, offer a salvific explanation to childbirth (cf. 1 Tim 2:15: “women will be saved through childbearing”).²⁵⁹

Ancient traditions refer to the actual delivery of the baby in terms of unsealing of the womb or belly (Ancient Egypt), a flowing out, breaking of a dam, a falling or a passage from darkness into the light (Ancient Babylonia/Bible).²⁶⁰ According to the authors of *On the Nature of the Child*, childbirth is set in motion when what nourishes the embryo in the womb does not suffice anymore (which is usually the case after ten months) and leads it to desire more food and to fidget and to break the membrane and to move outside. This is in line with Aristotelian theory that assumes an active movement of the unborn and a breaking of membranes, while the mother remains passive and no physiological action (e. g., contractions etc.) is acknowledged.²⁶¹ Galen, on the other hand, explains the onset of childbirth by distinguishing between a “holding capacity” (καθηκτική δύναμις) and a “propellent capacity” (προωστική δύναμις) of the uterus: as soon as that for the sake of which the holding capacity fulfils its duty is accomplished, the propellent capacity takes over.²⁶² Galen further explains that during the action of the propellent activity the mouth of the uterus opens up and pushes the embryo forwards,²⁶³ and that the pushing itself is not an action of the uterus anymore but of the epigastric muscles which are also involved in defecation and urination.²⁶⁴

²⁵⁷ Midrash Tanchuma, *Vayigash* 1:3. Cf. m. Shabbat 2:6 (“women die in childbirth because of three things: negligence regarding tithing, candling the Shabbat lights, observing the rules for menstrual im/purity”). For a survey on Jewish texts, see Klein 1998/99. For the Bible, see Ackerman 2014.

²⁵⁸ For Mesopotamia, see Stol 2000a; Bergmann 2008 and 2019; Laribi-Glaudel 2014; Couto-Ferreira 2014; for ancient Egypt, see Marhsall 2015 (esp. ch. 3), and Dupras et al. 2015, 55–65; for Graeco-Roman attitudes, see Gourevitch 1984, 169–175; Demand 1994, 71–86; Dasen 2011; Tatar-kiewicz 2018, Ricciardetto and Gourevitch 2021. For earlier religious sites and shrines, see Kanta and Betancourt 2022. In the Hebrew Bible, God is compared to a midwife and deliverer of the baby in Ps 22:10f.; Job 38:9 and Ps 71:6. For the involvement of deities in Hittite birth rituals, see Beckman 1983, 238–248; Mouton 2008. The Greek traditions knew Hera, her daughter Eileithyia, and Artemis as goddesses of childbirth or midwifery (family, and marriage). See LiDonnici 1992; Ionescu 2018. In Roman time, Pliny (NH 28, 27, 103) mentions also the use of apotropaic devices, such as animal parts and amulets; the latter were even endorsed by Soranus as an efficient placebo (Gyn. 3, 12). For the entanglement of religious and medical concepts in early Christian traditions, see Weissenrieder 2019.

²⁵⁹ See Solevåg 2013; Weissenrieder 2019.

²⁶⁰ Cf. Stol 2000a, 122–129; Couto-Ferreira 2014; Steinert 2017a: 323–340.

²⁶¹ See Hippocrates, *On the Nature of the Child*, 19/30 L. (7.530–532 L.); Aristotle, *On the Generation of Animals* IV, 8, 777a28–31; Aristotle, *History of Animals* VII, 9, 587a6–8. Cf. the discussion in Soardi 2023 (in this volume), 307–321.

²⁶² See Galen, *On the Natural Faculties*, 3.3 (2.148 K.).

²⁶³ See Galen, *On the Natural Faculties*, 3.3 (2.151 K.).

²⁶⁴ See Galen, *On the Natural Faculties*, 3.3 (2.152 K.). I am indebted to Ricarda Gäbel for the

Childbirth during which the head of the embryo is leaving the mother's body first was regarded the natural way – some traditions even propose that boys face downwards and girls upwards.²⁶⁵ Childbirth with oblique lie or breech presentation was thought to cause a difficult birth which may eventually result in the death of the mother and/or the child.²⁶⁶ Usually, birthing involved the experience of labor pain or “birth pangs”, described biblically in God's announcement to Eve after the fall (Gen 3:16), which were often used metaphorically in other places.²⁶⁷ The expectant mother was said to breathe vehemently when she is about to give birth and to feel intense pain in the lower part of the back because the abdomen is contracting around the embryo during birth, and in the whole body which is more intense during the birth of the first child since the woman is not familiar with this pain yet.²⁶⁸ The notion of ancient Greek texts differentiating between the length of and pain experienced birthing a male or female child is reflected in Talmudic traditions (b. Niddah 31a).²⁶⁹

From texts but also from a substantial number of material artefacts (e. g., figurines, images on reliefs, vases, or dedicatory inscriptions), scholars have learned that most women in the Ancient Near East and the Mediterranean would have usually chosen a sitting, crouching or kneeling position during birth.²⁷⁰ Ancient Egyptian, Mesopotamian and biblical sources mention birthing bricks or stones as an aid, while for Hittite and Roman traditions, we have textual and archaeological evidence for the use of birth chairs. Only in case of unexpected circumstances

information on early Greek medical and Galenic ideas. On the analogies and metaphors used in this discourse, see Decker 2018.

²⁶⁵ See e. g., Hippocrates, *On the Nature of the Child*, 19/30 L. (7.532 L. = 344 Schubert), *On Diseases of Women* 33 (8.74 L. = 330 Schubert), Soranus, *Gynaecology* 4.8. Some Talmudic traditions (m. Niddah 3:5; b. Niddah 31a) draw an analogy between the position during intercourse, i. e., men facing down and women upwards, and the position of the baby during birth. On the head-first birth as part of the Egyptian hieroglyph for birth, see Dupras et al. 2015, 55.

²⁶⁶ See e. g., Hippocrates, *On the Nature of the Child*, 19/30 L. (7.538 L. = 350 Schubert). Biblical texts, such as Hosea 13:13; Isa. 66:9, and 37:3; 2 Kings 19:3, speak of children who made it to the ‘mouth of the womb’ but cannot ‘break free’. For detailed discussion of other forms of complicated childbirth, see Soranus, *Gynaecology*, 4.4, 4.8.

²⁶⁷ For biblical accounts of (pain during) childbirth, see Philip 2006, esp. 81–101; Bauks 2021. Metaphorical usage was common in the Ancient Near east and is widely attested in the Hebrew Bible (e. g., Jer 6:24, 49:24, 50:43; Isa 42:14). Cf. Stol 2000a, 129–141; Bergmann 2008: 9–59; Couto-Ferreira 2014; Steinert 2017a. The concept of labor pains as a punishment or atonement can also be found in early Christian texts, such as the 2nd c. work, *De cultu feminarum* 1, 1 by Tertullian.

²⁶⁸ See Hippocrates, *On Diseases of Women*, 34 (8.78–82 L.); *On the Nature of the Child*, 30 (7.538 L. = p. 350 f. Schubert). Cf. Aristotle, *On the Generation of Animals*, 4.6, 775a28–b8. On difficult labor and pain during birth in ancient Mesopotamia and Israel, see Stol 2000a, 129–140. On the more corporeal depiction of Mary in childbirth and early Christian ideas, see Glancy 2010, esp. 81–135.

²⁶⁹ Cf. Soardi 2023 (in this volume), 307–321 who discusses Aristotle's view.

²⁷⁰ See Eckstein 2019.

or weakness of the mother, a lying position would have been advised.²⁷¹ The active presence of midwives or other medical personnel during birth is reflected in many ancient texts, and Soranus or the rabbis deal with the characteristics of the (perfect) midwife that will be discussed in the following.²⁷²

In case of a complicated birth, the ancient texts point to a pool of obstetric techniques used by midwives or doctors. These were not confined to external or internal manipulation of woman and child, but also included diverse herbal or pharmaceutic applications.²⁷³ The Talmud explicitly warns against midwives who might be able to harm or kill the unborn unwitnessed by others inside the woman's body.²⁷⁴ While Caesarean section was an unlikely practice in antiquity, various traditions report of manual and instrumental means for the extraction (ἐμβρυουλκία) and dismemberment (ἐμβρυοτομία) of (dead) fetuses. They also described measures to be taken in case of placenta retention. They share these ideas with rabbinic discussions about embryotomy, dangers involved for the mother, and legal implications, as shown by Samuel Kottek in this volume.²⁷⁵ Multiple births (e.g., twins) were regarded as rather complicated and often dangerous and dramatic events with huge potential for harm and death of mother and child.²⁷⁶

²⁷¹ See Soranus, *Gynaecology*, 2, 1–2. On biblical and Mesopotamian traditions, see Stol 2000a, 118–122; Battini 2006. For ancient Egypt, see Töpfer 2014, esp. 320–332; Dupras et al. 2015, 55–56; and Roth and Roehrig 2022 on the use of magical bricks during birth and for rituals aiming a rebirth after death in ancient Egypt. Philips 2006 and Viezel 2011 argue that the biblical authors were less acquainted with the actual realia of birth. But Makujina 2016 and 2017 questions this, with help of the mentioned details (birthing position, pain etc.) in Stol 2000a. This is supported by McGeough 2006. Cf. Preuss 2004, 395–397.

²⁷² See e.g., Galen, *On the Natural Faculties*, 3.3 (2.151–152 K. = 358 Schubert); Soranus, *Gynaecology*, 1.4.1–5. Cf. Töpfer 2014 (depictions of midwives in ancient Egypt); Laes 2010; King 1998, 172–187; Ecça 2017; Demand 1994 (esp. chs. 4 and 6), 71–86 and 102–120; Marchetti 2019; and Hanson 1994 on Graeco-Roman culture; as well as the following discussion.

²⁷³ Slow delivery is mentioned in the Bible (Hosea 13:13; Isa 37:3) as well as different forms of miscarriages or stillbirths. See Grohmann 2005; 2009, 386–392, and 2019. For Egyptian and Graeco-Roman interventions, see Töpfer 2014, 332–334; Dupras et al 2015, 56–57; Hanson 2008, esp. 105–108; Gourevitch 1984, 176–1994; Tatarkiewicz 2018 and 2021. For Mesopotamian magico-medical strategies in cases of difficult or protracted labor, see Stol 2000a, 49–71, 129–141 *passim*; Couto-Ferreira 2014; Scurlock 2014a: 593–608; Minen 2018: 193–196. Geller 2021, 346–347, compares approaches to expelling a dead fetus in roughly contemporary Babylonian and early Greek medical texts (*Diseases of Women* I).

²⁷⁴ See t. Avodah Zarah 3:3 (1); y. Avoda Zara 9, 2 (40c); b. Avodah Zarah 26a. See Ilan 1995, 111–119. Cf. Ex. 1:15–17 on the midwife's role as deciding about life and death of a child.

²⁷⁵ See examples in the Corpus Hippocraticum: *Diseases of Women*, 1.70, 3.249; *On Superfetation* 7; *On Excision of the Foetus* 1–2; Soranus, *Gynaecology*, 4.9 [61]; Celsus, *On Medicine*, 7.29. Cf. Gourevitch 2004; Barroso 2013; and the translations in Schubert and Huttner 1999, 370–381. On Caesarean section, see Pliny, *Natural History*, 7.9, and the discussion by Kottek 2023 (in this volume) 435–448. For later Jewish takes on Caesarean section, see Foscati 2021. For the reception and appropriation of non-natural birth practices in the medieval and Early Modern West, see Blumenfeld-Kosinski 1991.

²⁷⁶ See the struggle between the two brothers Esau and Jacob in Gen 25:21–24 and its interpretation in Gen. Rabba 63,3; Pliny, *Natural History*, 7.37, and 7.47; Soranus, *Gynaecology*, 4.1. Cf.

Ancient traditions show a rather high degree of overlap regarding the first steps of treating the new-born child. The biblical text of Ezekiel 16:4 highlights: *On the day you were born your cord was not cut, nor were you washed with water to make you clean, nor were you rubbed with salt or wrapped in cloths.* Very similar actions are known from ancient Egyptian, Graeco-Roman and later rabbinic texts.²⁷⁷ They give instructions on how to bind or swaddle the baby, a technique that, combined with other approaches, also served to manipulate the anatomical look and posture of the child. Various texts approve rubbing with salt or anointing with wine that should help to improve the new-born's constitution, skin complexion and general health.²⁷⁸

Post-partum ailments of mothers and children were numerous and well-known to the authors of medical texts in ancient Mesopotamia and the Graeco-Roman world who offered copious therapeutic advice.²⁷⁹ Ancient Babylonian, Persian and the local Jewish traditions were also concerned with various demonic forces that would take advantage of the liminal period of birth and puerperal to harm or even kill mother and/or infant. Those worries reflected the high level of mortality of mothers and children during or after birth that was countered by apotropaic recipes, protective amulets and incantations.²⁸⁰ In addition, ancient Egyptian and Babylonian texts appear to imply a degree of impurity for women with bleedings during pregnancy and after giving birth that would ex-

Dasen 1997, 2005b, and 2013, esp. 21–22; Zuccolin 2018. On prenatal and neonatal death, see Stol 2000, 140 f.; Dasen 2013, 33 f.

²⁷⁷ See the washing of the newborn and cutting of the umbilical cord in Töpfer 2014, 319 f.

²⁷⁸ On neonatal care in general, see Soranus, *Gynaecology*, 2.30–40; Galen, *On Matters of Health*, 1.7.4–24 (6.32 K. = 16, 14–18, 18 Koch); b. Shabbat 129b. Cf. Demand 1994 (esp. chs. 5 and 8), 87–101 and 141–154; Israelowich 2020. For ancient Babylonian sources, see Stol 2000a, 141–144. Plutarch, *On Sparta* (Life of Lycurgus) refers to rubbing with or bathing a newborn in wine as a test of viability performed by mothers in Sparta; cf. also t. Shabbat 12:13. On swaddling and other manipulations, see Soranus, *Gyn.* 2.28 and 34; m. Shab 12:6; b. Shab 147b. Some Jewish traditions tell how the post-partum care was performed by an angel for women who gave birth in the open field in the Egyptian exile (b. Sota 11b; ExR 23, 8; LevR 5:1). On the preservation of the placenta in various substances (oil) or materials (wool, oakum, straw, sand) and on the custom of burying it, see m. Niddah 9:2; t. Shabbat 15:3; y. Shabbat 18,3 (16c); b. Niddah 27a; b. Shabbat 129a.

²⁷⁹ On Graeco-Roman approaches see Demand 1994, 167–184; Dasen 2011; Craik 2020; Schubert and Huttner 1999, 392–422; Laes 2014 (rituals and “social birth” for new-born children). On Mesopotamian advice, see Stol 2000a, 144 f., and 203–213; Scurlock 2014a: 608–616; Couto-Ferreira 2014; Minen 2018, 196–201; Steinert 2020, 60–61. For rabbinic literature, see the treatment of the sickly newborn in b. Shabbat 134a, and the complex discussion by Monika Amsler (Amsler 2023, in this volume; 399–419).

²⁸⁰ See Scurlock 1991; Stol 2000a, 209–213, and 217–249 (Chapter X by F.A.M. Wierman); Farber 2014 and the incantations mentioned by Steinert 2023 (in this volume), 273 f., 283 f. Cf. Tastsou 2019. In Talmudic texts (b. Niddah 24b, b. Shabbat 151b; b. Erubin 100b, b. BB 73 a–b) the female demon Lillith is seen as a threat to both men and women. Only in the incantation bowls and later traditions (e. g., the *Alphabet of Ben Sira*), she is more directly linked to birth and infant mortality. For the protection by female deities, see Hölbl 2022; and Kanta and Betancourt 2022.

clude them from certain rituals or specific spaces. Moreover, in some texts also the new-born child was considered impure and in need of purification. A notion that was shared by some earlier Jewish texts but largely rejected by the late antique rabbis.²⁸¹ Similarly, biblical, Qumranic and rabbinic traditions feature detailed regulations regarding (ritual) impurity of a woman who had given birth (*yoledet*), which implied different time periods in case of a male (shorter) or female (longer) new-born. These ideas and practices attest to a conceptual development and clearly reflect a social hierarchy or difference between the sexes and a clear preference of male offspring.²⁸²

Similarly, early Greek medical texts differentiate between the duration of the “cleansing period” after the birth of a female (42 days) or male (30 days) child. This physiological description of the purging of excess material (*lochia*) that served the embryo for its gestation during pregnancy is in line with the concept of humoral balance but also displays a cultural penchant for a male offspring.²⁸³

10. Breast-feeding²⁸⁴

The importance of prenatal and neonatal care, discussed beforehand, implies also the continuum of motherhood before and after birth.²⁸⁵ The cultural and religious dimension and conceptions of breast-feeding, nourishment and (religious) education can be traced in artistic depictions and mythological accounts of (human

²⁸¹ See Beckman 1983; Stol 2000, esp. 205–206. Scholars have pointed to similarities between biblical and Hittite purification rituals that affected mother and child. See Garroway 2019; Thiessen 2018; Feder 2016; and, for later developments, Thiessen 2012. Ritual impurity of the newborn is mentioned in Jubilees 3:8–12 and some Qumranic texts but ruled out in the midrash Sifra *Sheratzim* 11:1. See the discussion in Novick 2014.

²⁸² According to Leviticus 12 women who gave birth must observe a period of ritual impurity (seven days in case of a boy and fourteen in case of a girl) followed by a period of purification (33 vs. 66). This process is completed only after having presented a burnt offering and a sin offering in the Temple. Cf. Philips 2006, 113–119; Olyan 2019; Harrington 2019; Wassen 2005. On Second Temple traditions see Baumgarten 1994. On the later repercussions of this biblical command, see Fonrobert 2000, esp. 15–39; Novick 2014; Faust and Katz 2014; Farber 2017 and 2020. Interestingly, after the first period of impurity, sexual activity is rabbinically permitted (cf. Sifra *Tazria* 1:8) but remained a debated issue, especially during the medieval period. On the concluding sin offering in a culturally comparative perspective, see Feder 2016.

²⁸³ For the medical texts, see Hippocrates, *Diseases of Women* 1.72 (8.152 L.). Cf. the discussion in Soardi 2023 (in this volume), 317–319.

²⁸⁴ For a preliminary, selective bibliography on the topic (mainly on Graeco-Roman traditions), see Dasen 2012. For some broader surveys and cross-cultural volumes, see Perdicoyanni-Paleologou 2020; Pedrucci 2019a; Dasen et al. (In Press). For sources texts, see Weissenrieder and Dolle 2019, 518–523 and 738–739.

²⁸⁵ Various aspects of ancient (mainly Graeco-Roman) motherhood are discussed in the volumes by Hackworth Petersen and Salzman-Mitchell 2012; Sharrock and Keith 2020; Pedrucci 2019a, 2020b and 2020d; Pedrucci and Pasche-Guignard 2017; Sánchez Romero and Cid López 2018; and in McAuley 2016; Vilatte 1991; Laes 2014; Constantinou and Skouroumouni-Stavrinou

and divine) nursing or in temple practices around the *kourotrophoi* in the Ancient Mediterranean, Near East, Italy, and North Africa.²⁸⁶ In ancient times, breast-feeding was the most common way of providing for the newborn. This way of nursing often included or bordered on various medical issues regarding milk production (and the lack thereof), strategies of feeding and weaning the child as well as several pathological conditions that might accompany it.²⁸⁷

The concepts of milk formation were certainly contingent and often reflected certain cultural or religious ideas. Accordingly, ancient Egyptian texts, which otherwise say very little about the subject, suggest a close connection between milk (and semen) and the bones of the spine as the place of origin. They also describe a close connection between and a possible transformation of milk and (menstrual) blood, which also prevails in other ancient traditions.²⁸⁸ In Graeco-Roman traditions, breast-milk was thought to come from the uterus to the breasts in order to nourish the baby after birth. Since the embryo in the womb was nourished through what before pregnancy would become menstrual blood, authors suggested a transformation, a process of cooking or curdling through bodily heat that eventually produces breast-milk.²⁸⁹ Very similar ideas on the (trans)formation of breastmilk can be found in rabbinic texts for which the origin of this bodily fluid was of crucial importance also regarding its status of (ritual) impurity.²⁹⁰

According to Soranus, the newborn child should not be fed with breast-milk immediately after birth but only after a few days.²⁹¹ The milk of the child's own mother was thought to be best, unless she was ill, and mother's milk was identified as "the most proper nourishment" (οἰκειοτάτη τροφή) for newborns.²⁹² In case of impediments to the newborn being breast-fed by the own mother, it was pos-

(forthcoming). For Mesopotamia, see Couto-Ferreira 2016. On ancient Egypt, see Marshall 2015 (esp. chs. 4 and 5). On the Bible, see Bergmann 2020.

²⁸⁶ See from the emerging scholarship e.g., Hadzisteliou 1978; LiDonnici 1992; Bonfante 1997; and Budin 2011; Salzman-Mitchell 2012; Ionescu 2018; Dasen 2019; Peddrucci 2019b and 2020d.

²⁸⁷ For the milk discourse in ancient and later Greek texts, see Constantinou and Skouroumouni-Stavrinou 2022.

²⁸⁸ Cf. Pommerening 2023 (in this volume), 159–161.

²⁸⁹ See e.g., Galen, *On Matters of Health* 1.7.18–21 (6.36 K. = 17, 26–18, 4 Koch); Hippocrates, *On Glands*, 16 (8.570–572 L. = 80, 1–8 Craik); *On the Nature of the Child*, 10/21 L. (7.510–512 L. = 334 Schubert). See Aristotle, *On the Generation of Animals*, 4.8, 776a15–777a27. See also Hippocrates, *Aphorisms*, 5.39. For the production of mother's milk, see Dean-Jones 1994, 215–223; Gherchanoc 2020b; Lawrence 2021, esp. 225–231; Totelin 2021.

²⁹⁰ See e.g., t. Niddah 2:2; y. Niddah 1:5, (49b); b. Niddah 9a; b. Bekhorot 6b; b. Ketubbot 60b. Cf. Preuss 2004, 404–410; Rosenblum 2016; Balberg 2014, esp. 172–174. While the milk remains fit (*kosher*) for consumption by the infant, the fluid itself renders other things and person (ritually) impure. On biblical accounts, see Gruber 1989.

²⁹¹ See Soranus, *Gynaecology*, 1.17–18 (64, 2–22 Ilberg).

²⁹² See Galen, *On Matters of Health*, 1.7.17–20 (6.35–36 K. = 17, 24–18, 4); Soranus, *Gynaecology* 2.18 (65, 16–20 Ilberg).

sible to hire a wet-nurse who should be carefully selected, a process about which Soranus provides detailed advice.²⁹³ Soranus also describes in detail how one has to breast-feed the child,²⁹⁴ and he suggest that one should exclusively breast-feed until the baby is six months old,²⁹⁵ while Oribasius in his *Synopsis ad Eustathium* extends this nursing period until the child is two years old.²⁹⁶ The ancient Jewish and rabbinic opinions on the best time-span for breastfeeding range from 18 months up to five years, with a common average of about two years. This also involves the question when a nursing woman is permitted to resume sexual relations with her husband (or to remarry), which eventually might result in a new pregnancy. Since such a course of events and the necessity to wean the infant might have harmful effects for the child, the rabbis discussed both the help by wet nurses and the permission of contraceptive strategies.²⁹⁷

Ancient traditions knew of several pathological conditions that could occur before, during and after lactation. A major impediment was the inability of a woman to breastfeed, for which one finds numerous therapeutic instructions, from external manipulation to diet, regarding the stimulation of the milk production. Another concern was the quality of the breast milk, being too thin or too thick (curdled/cheesy), and thus either less nutritive or unfit for consumption, it might cause harm to mother and child. Graeco-Roman texts provide ample advice that focus on moderate physical activity or exercise and a special diet.²⁹⁸ These texts and also Talmudic traditions recommend more healthy food, especially meat, and wine to increase the breast milk.²⁹⁹ Finally, several texts refer to inflammations or fevers and other affections (blockage, retention) during lactation.

Breast milk was not only considered to be a highly nutritional substance for infants, but its alleged curative properties turned it also into a medical substance used for various purposes. Based on a mythical narrative about Isis healing Horus,

²⁹³ See Soranus, *Gynaecology*, 2.19–20 (66, 5–69, 5 Ilberg). Cf. Van Minnen 2012. For wet nurses in Mesopotamia, see Stol 2000a, 181–190; 2016, 376–381; Couto-Ferreira 2016, 30–31.

²⁹⁴ See Soranus, *Gynaecology*, 2.36–40 (79, 20–83, 23 Ilberg).

²⁹⁵ See Soranus, *Gynaecology*, 2.46 (86, 7–11 Ilberg).

²⁹⁶ See Oribasius, *Synopsis to Eustathius*, 5.5.3 (155, 22–23 Raeder). For the part on breastfeeding in Soranus and Oribasius, I thank Ricarda Gäbel. Ancient near Eastern traditions mention a time-span between two and three years as the usual period of breastfeeding. Cf. Gruber 1989; Stol 2016, 376.

²⁹⁷ For the different time-spans, see t. Niddah 2:2–7; b. Ketubot 59b–60b; y. Sotah 4:4 (19c–d); b. Yevamot 42a–b. 2 Mac. 7:27 mentions three years of breastfeeding. Cf. Rosenblum 2016, Gruber 1989; and Ilan 1995, 119–121. The contraceptive strategies are mentioned in t. Niddah 2:6; b. Niddah 45a; b. Yevamot 12b, 34b, 42a and 100b; and b. Ketubbot 39a. See also the discussion in Meacham 2021. Cf. Stol 2016, 378.

²⁹⁸ See Alexander of Tralles, *Therapeutics* 1.15 (Puschmann 1.539, 1–6). Cf. the lists in b. Ketubbot 60b about food that is bad for breast milk (e.g., hops, small fish, pumpkins). For other Graeco-Roman advices for ailments of the breasts during lactation, see Tuten 2014. For the reception and appropriation of these ancient approaches, see Tuten 2020; Cabre and Salmon 2020.

²⁹⁹ See y. Ketubbot 5,13 (30b); b. Ketubbot 60a and 65a. Cf. Aly 1996, for Greek papyri.

Egyptian sources mention the “milk of a woman who has born a son” as a remedy that might have been transferred even into the Graeco-Roman tradition via the convergence between Isis and Demeter or other (local) child-rearing goddesses.³⁰⁰ Egyptian and early Greek medical texts describe breastmilk as part of a fertility test for women or in relation to testing the sex of the unborn.³⁰¹ Ancient Babylonian sources mention breast milk as an ingredient in various recipes for women but also for other ailments.³⁰² Graeco-Roman sources, from the early Greek medical texts to the late antique compilations, refer to the external and internal application of breast milk as an effective remedy against ailments of the eyes or ears, gynaecological affections, lung diseases, intestinal trouble, pain, inflammations or as an antidote.³⁰³

Besides the medical discourse, breastfeeding was also of major social and economic interest in various ancient cultures. Scholars have shown how ancient Egyptian texts and images depict the (changing) roles of the wet nurses within the family and the royal court over the course of several centuries.³⁰⁴ Jewish and rabbinic texts perceive breastfeeding as service that a woman owes her husband as the child’s father who in turn has to give her additional provisions (food etc.) and she would be exempted from other work. A woman was, however, allowed to bring her own maids and (wet) nurses who could take on some of her duties including breastfeeding. Wet nurses would be hired or animal milk would be provided and religious rules would be transgressed in order to minimize the danger to the life of the newborn.³⁰⁵ Despite Soranus’ emphatic advice to breastfeed one’s own chil-

³⁰⁰ See LiDonnici 1992; Ionescu 2018; Dasen 2019.

³⁰¹ See Hippocrates, *On Sterility* (= *On Diseases of Women* 3), 214 (8.414–416 L.); pBerlin 3038, Rs. 1, 3–4 [= Bln 193, ed. Wreszinski]. Cf. the discussion in Pommerening 2008; Laskaris 2008; and Mulder 2017.

³⁰² See Steinert 2023 (in this volume), 273–280.

³⁰³ Cf. Hippocrates, *Diseases of Women* 1.75, 1.84, 2.158, 2.162; Dioscorides, *On Medical Materials*, 2.70.6 (tr. Beck, 2005, p. 112) mentions breastmilk as nutritive (also for others than infants). Moreover, it is used in different applications against tuberculosis, gout, belly troubles, food-poisoning and eye ailments; Celsus, *On Medicine* 6.7.1B (eyes), 6.6.8B (ears), 5.21.1B; Pliny, *Natural History*, 20.135, 28.72–75; Marcellus, *On Drugs*, 9.110, 16.105 refers to breast milk against ear pain, lung disease etc.; Galen, *On Marasmus* 9 (7.701 K.); *On the Therapeutic Method* 6.6 (10.474–75 K.) discusses suckling directly from the breast of a woman against phthisis (alternative: donkey’s milk); Oribasius has 18 references for the use of breast milk as a remedy against: 8 eye ailments, 4 gynaecological, 2 ear affections, 2 for pain, 1 for stomach trouble, 1 as an antidote; Aetius throughout his compendia has 29 references: 9 eye, 8, ear, 6, gynaecological, 2 teeth, 2 purgatives, 1 sore lips, 1 headache; Alexander of Tralles knows about ten applications of breast milk: 4 inflammations, 3 eye, 1 purgative, 1 hectic fever, 1 headache; Paul of Aegina mentions 11 examples for its use: 4 gynaecological, 2 eyes, 2 inflammations, 2 antidotes, 1 ear. Cf. the studies by Laskaris 2008; Mulder 2017; Pedrucci 2020c; Constantinou and Skouroumouni-Stavrinou 2022; and Totelin 2021.

³⁰⁴ Cf. Spieser 2012; Huizenga 2014; Parca 2017; Marshall 2017.

³⁰⁵ See m. Ketubbot 5:5–9; t. Ketubbot 5:4–5; y. Ketubbot 5,6 (30a); b. Ketubbot 60a; t. Shabbat 9:22; m. Niddah 1:4 t. Niddah 2:4. Cf. Labovitz 2000; Rosenblum 2016; Walfish 2017.

dren, various women in Roman society relied on the service of wet nurses (*nutrix/nutrices*), be it due to an illness, difficulties in lactation or due to cultural habits and social status. The regular procuring of nurses (and other specialized helpers or caregivers) were in the ancient Mediterranean and Near East mostly a privilege of the well-off or elite families. Moreover, in many societies these professions or tasks were connected to dynamics of slavery and questions of social mobility.³⁰⁶

At the same time, wet-nursing and similar services (e. g., childcare) were also a complex and often fuzzy 'contact zone' framed by (bodily) intimacy and suitable as an arena for sociocultural exchanges and negotiations. From antiquity well into the medieval period, several sources attest to the close bonds or even kinship that was created between those who were breastfed by the same woman, thus, becoming "suckling siblings".³⁰⁷ In addition to the socio-economic aspects, breastmilk worked in various ancient cultures as a "food and boundary marker" that was "laden with the content of pedagogical, moral and even familial identity". This idea was based on ancient mythical, religious, philosophical and medical ideas about the impact of diet and nutrition on the formation of the soul and the human individual.³⁰⁸

Narratives about (half-)gods and other cultural heroes who were nursed by (wild) animals or strangers played a central role in various Graeco-Roman founding myths.³⁰⁹ Also the post-biblical traditions augmented the story about Moses, the foundling in a reed basket, with some details about his rearing. Philo depicted being nursed with divine *Logos* from a legitimate source of a Hebrew woman (his physical mother) as the foundation of Moses' future greatness and leadership. The narrative about the seven martyrs (2 Maccabees 7; 4 Maccabees 17) presents them as immunized against idolatry by their mother's milk, in which the essence of Torah and Jewish identity was dissolved. These ideas were further developed in various Talmudic traditions and by Augustine for early Christians.³¹⁰

Scholars have pointed out that the Roman emperor at large and every *pater familias* in his household pursued the target of maintaining Rome's imperium. Roman women's and their wet nurses' bodies were considered to be "the instrument through which social legitimacy was birthed, nurtured, and sustained", "a

³⁰⁶ See Stol 2016, 376–379; Gruber 1989; Joshel 1986; Bradley 1980 and 1986; Vilatte 1991; Aly 1996; Yee 2009; Van Minnen 2012; Parca 2017; Abou Aly 1996; Dasen 2010; busses 2016; Gourevitch 1984, 233–259; Ricciardetto and Gourevitch 2020; Pedrucci 2020.

³⁰⁷ On ancient Babylonia, see Stol 2000a, 190; 2016, 378. A broad survey of the topic is provided by Chapman 2012. Cf. Huizenga 2014, Centlivres Challet 2017a; Rahbari 2020 (Islam and Shi'a tradition).

³⁰⁸ Quote from Penniman 2017, 108. See the discussion *ibid.*, 6–17 and 23–36. Cf. Marshall 2017; Dasen 2010.

³⁰⁹ See Pedrucci 2016; Totelin 2017. The most famous example might be the brothers Romulus and Remus.

³¹⁰ See the discussion in Penniman 2017, 52–78. On the seven martyrs, see b. Gittin 57b. On breastmilk conveying Jewish ethno-religious essence, see Gen.R. 30:8; 53:9; b. Shabbat 53b, and b. Bava Metzia 87a. Cf. Haskell 2012, 17–30; Kessler 2005.

resource that was monitored, theorized, and moralized in order to provide the optimal nutritive output”³¹¹ Accordingly, several Roman authors critiqued the frequent dependence of elite families on alien surrogates in their child-rearing practice, while they admired and recommend breastfeeding by the biological mother or, at least, a proper Roman nurse.³¹² Soranus’ deliberations about the choice of the best wet nurse included besides various physical factors (age, constitution, fertility, health) also aspects of culture and intellect, according to which Greek women ranked above all other non-Roman nurses. Moreover, a number of authors saw a continuum between nursing and teaching as a formative tool, between the *nutrix* and the *paedagogus*.³¹³

The didactic and cultural value of breastfeeding is emphasized in various ancient Jewish traditions, which draw an analogy between the life-sustaining power of breast-milk and Torah, as revelation and a practice of study.³¹⁴ A Talmudic teaching in b. Berakhot 101a praises the superior divine design of the female body, since infants receive their milk close to the heart, which as a “place of understanding” instills the child with knowledge and Wisdom. Similarly, one finds depictions of God or a teacher-figure (Qumran) as nursing Israel or their community with knowledge of Torah and religious values.³¹⁵ In the Psalms and their rabbinic expositions, breastfeeding and weaning are used as metaphors for humility and closeness to God.³¹⁶ Moreover, several traditions raise ethnic concerns and argue for Jewish distinctiveness. In some texts, Moses refuses every nipple offered by Egyptian wet nurses, since a non-Israelite woman is regarded as unworthy for the future recipient of divine revelation.³¹⁷ By contrast, other passages prohibit that Jewish women serve as wet nurses for non-Jewish infants, while they explicitly allow non-Jewish women as wet nurses for Jewish children.³¹⁸ This tendency of limited interaction with non-Jewish wet nurses is opened up in various later tradi-

³¹¹ Penniman 2017, 40 and 43.

³¹² See Plutarch, *On the Education of Children*, 5 (*Moralia* 3C–E); *Consolation to his Wife*, 5 (*Morale* 609E); Tacitus, *German Tribes*, 20; Aulus Gellius, *Attic Nights*, 12.1. Abou Aly 1996 points out that the texts demanding high standards for wet nurses as well as the medical advices (e. g., in Soranus) were followed by elite families, while commoners took a more pragmatic approach.

³¹³ See Soranus, *Gynaecology* (2.57.2–3 93, 9–14 Ilberg); Athenaeus of Attalia in Oribasius, *Medical Collections* (uncertain books), 39.1–8 (138, 19–139, 30 Raeder). Cf. also Coughlin 2018, 137–142; Penniman 2017, 43–51; Tiote 2009; Huizenga 2014; Totelin 2017 (on myth and culture); Centlivres Challet 2017a and 2017b; King 1991; Dasen 2010; Abou Aly 1996; Létoublon and Alaux 2001; Lawrence 2021. A similar continuum between wet nurse and nursemaid suggests Stol 2016, 379–381.

³¹⁴ See y. Berakhot 9,8 (14d); b. Eruvin 54b; Num.Rabbah 4,20; Pes.Rabbati 7, 9; Ex.Rabbah 30,9. Cf. Haskell 2012, esp. 30–37; Aranoff 2017.

³¹⁵ See b. Sotah 11b and 30a. Cf. Haskell 2012; Raveh 2014, esp. 10–17, and 23–38; Cherian 2006.

³¹⁶ See Grohmann 2010c.

³¹⁷ See b. Sotah 12b; Ex.R 1; and the discussion in Raveh 2014, 17–23.

³¹⁸ See m. Avodah Zarah 2:1; y. Avodah Zarah 2,1 (40c); b. Avodah Zarah 26a.

tions that depict Jewish cultural heroes freely transcending the boundaries of ethnicity and gender. Accordingly, the matriarch Sarah is portrayed as miraculously breastfeeding Jewish and non-Jewish babies with her “breast gushing forth like two fountains”.³¹⁹

Following these ideas already circulating among earlier Greek, Roman and Jewish thinkers, early Christian traditions understood breastmilk as both an essential nutriment for the infant and a nutritional essence that played a crucial role in the development of the child’s intellect, faith and character, and served as a potent boundary marker. Scholars have pointed out that many Christian authors in late antiquity were well-versed in medical and other knowledge in the Graeco-Roman tradition. Accordingly, they deployed the medical theories about the formation of the milk and the physiology of lactation for their socio-religious and theological discourse. On the one hand, ideas about blood and pneuma-infused breastmilk were connected to the milk of Christians, which is infused with Christ’s Logos (or the Holy Spirit). On the other hand, following earlier Jewish discourse, they imagined the task of the church and especially of the clergy, often in a self-referential manner, as nursing the congregation with the milk of Christian Wisdom and *paideia*.³²⁰

Recently, some studies have pointed out how medical discourse on breast feeding was used by Roman and early Christian texts to stress female agency but also female worries in this area. Thus, breast milk becomes a powerful substance: as a symbol of perfection in Mary’s instant ability to breastfeed without the ‘natural’ impeding of post-partum bleedings, as a healing and nourishing fluid for other adults; and as a tool to undermine the impact of imperial torture and persecution – as in the martyrdom of Perpetua and Felicity. Simultaneous, some of these traditions also give voice to female difficulties to nurse their children or to the ancient reservations toward the mixing of blood and milk.³²¹

11. Female Practitioners in Ancient Medicine

The involvement of women in ancient medicine, what Rebecca Flemming calls the “medical provision by and for women”, is still an understudied topic, despite some substantial interest attested in more recent publications.³²² These studies,

³¹⁹ See y. Avodah Zarah 2,1 (40c); GenR 53; b.Bava Metzi’a 87a. Cf. Levinson 2000; Kessler 2005, Rosenblum 2016, 172–176. In this regard, a comparison with the depiction of Tellus (Mother Earth) on the Roman *Altar of Peace* as nursing the babies of the world might be very worthwhile. Cf. Penniman 2017, 37 f.; and LiDonnici 1992.

³²⁰ See the comprehensive and comparative studies by Penniman 2015 and 2017. For case-studies of John’s Gospel; Acts or specific authors (Clement, Origen, Paul), see e. g., Myers 2017; Chalmers 2014; LaValle 2015; McNeel 2014, Corrington 1989; Buell 1999, esp. 131–179; Tite 2009.

³²¹ See Mulder 2017; Dova 2017; Lillis 2016; Vuong 2013; Totelin 2021.

³²² Flemming 2013a, 274.

however, had to question an old but still persisting narrative. According to earlier scholarship, ancient cultures witnessed a complete lack of female physicians and, consequently, female medical expertise was usually, if at all, confined to the “lower” ranks of health practitioners in the gendered realm of female focused services, such as midwives and wet nurses. However, more recent scholarship has broadened our perception of female medical practitioners whose expertise went far beyond obstetrics and nursing.

11.1. Ancient Egypt, Mesopotamia, and Israel

While ancient Egyptian medical texts keep surprisingly silent about gynaecological practices related to birth, other religious, astrological or mythological traditions focusing on divine birth provide ample and detailed physiological information. The silence in the medical technical literature may also point to a division of labor between physicians, priests or medical summoners and midwives or other birthing assistants (nurses). Those play a central role in numerous depictions and descriptions, mainly of divine births, as actively supporting the parturient and offering medical service, neonatal care, and even nutrition via breastfeeding.³²³ Other female medical practitioners occur only very rarely and rather late. Only one tomb inscription from the Old Kingdom (middle-3rd century BCE) mentioning a *Peseshet* as the “supervisor of female healers/physicians”. This information, however, was confused by non-specialists who ‘invented’ a legendary Merit Ptah as the earliest “Chief Physician”.³²⁴

Interestingly, in ancient Babylonia the religious and cultural realm of healing/medicine was headed by a female goddess (*Gula/Baba*), but the two main branches of medicine were clearly dominated by male (medico-)ritual experts (*āšipu*) and physicians (*asû*). Only few exceptions are attested, mostly female doctors who worked at the courts, often accompanied by assistants or midwives. Thus, it is not entirely clear, if those women were general physicians who predominantly serviced other women or if they specialized in gynaecology and/or obstetrics.³²⁵ In Hittite sources female doctors are mentioned as well. Moreover, the texts specify the twofold role of midwives: first, they provided medical and obstetric assistance including physical manipulation and therapeutic strategies; second, as part of the first prenatal care, midwives were supposed to utter special incanta-

³²³ See Töpfer 2014.

³²⁴ See Kwiecinski 2020. On medical experts and practitioners, see John F. Nunn, *Ancient Egyptian Medicine* (Norman, OK: University of Oklahoma Press, 2002), 113–136.

³²⁵ Cf. Stol 2016, 371. For Mesopotamian goddesses (especially so-called “mother-goddesses” or “birth-goddesses” and the healing goddess *Gula*) as midwives, see e.g., Asher-Greve and Goodnick Westenholz 2013; Böck 2014; Steinert 2017b. For midwifery, see further Stol 2000a, 171–181 *passim*.

tions as a crucial protection for the newborn.³²⁶ The Hebrew Bible often describes birthing scenes that involved the help by other women of the family or servants of the household. Other passages explicitly refer to female birthing experts, i. e., midwives (*mevaledet*/ מילדת) as offering their service but who might be members of the broader household or tribe as well (e. g., Gen. 35:17; Gen. 38:28; Ex. 1:15–21). In prophetic texts or the Psalms one finds references to God, the creator of all life, who is described in analogy to a mother and/or a midwife as in Psalm 22:11: *You [God] drew me from the womb, kept me safe at my mother's breast.*³²⁷

11.2. Ancient Graeco-Roman, Early Christian, and Talmudic Approaches

Also Graeco-Roman cultures can be characterized by a heavily gendered medical tradition dominated by male experts as physicians and medical authors – both of which referred to and relied on knowledge and skills of female practitioners. The main realm of female medical expertise and involvement in ancient Greece and Rome was certainly the service to and care for women, specifically during pregnancy and birth. These midwives (Gr. *maíai*/Lat. *obstetrices*) or wet nurses (Gr. *trophos*/Lat. *nutrices*) were seen in earlier scholarship rather as low-level practitioners and less trained or uneducated helpmates of “real physicians”. This was probably triggered by Socrates depiction of a *maía* as an old women well-versed in magic incantations and rituals who overlooked the successful birth.³²⁸ However, this assessment has changed substantially over the past few decades. Already in the early Greek medical texts, besides scattered condemnations, one finds references to the expertise of reliable midwives or the (self-)knowledge of “experienced women” which was valued and incorporated by the male authors. Some assumed that Greek physicians were willing to accept female expertise and assistance by midwives, whose status as medical ‘professionals’ was raised, as long as they bowed to the male dominated discourse.³²⁹ Even Galen who reveals different aspect of the *maiai*’s practice assumes “that they are operating in the same conceptual and practical world as himself [...], just lower down the hierarchy”.³³⁰ Moreover, studies have emphasized the possible role of midwives as the authors

³²⁶ Cf. Stol 2016, 371; and Beckman 1983, 232–235.

³²⁷ Claasens 2006; Raveh 2014, 56–73; Grohmann 2006, 2007, 50–69, 2009, 380–386, and 2010a.

³²⁸ Plato. *Theaetetus*, 149B–E. Cf. Riddle 1992 and 1993; Scarborough 1993. For a survey, see Jackson 1993.

³²⁹ See Demand 1994 and 1995; King 1998, sp. 157–187 who mentions the collaboration of the male *iатros* with female specialists and other (male and female) helpers during birth. Opposite to Agnodike’s example as a female expert who studied and practiced with a male teacher (in disguise), on the ground, at least in the realm of gynaecological matters, the gendered knowledge transfer might have been the other way round. See King 1986.

³³⁰ Flemming 2013, 278. Cf. Flemming 2000, 33–39.

and transmitters of recipes and pharmaceutical knowledge.³³¹ In his gynaecological work, Soranus sought to outline the prerequisites of the ideal Roman midwife (*maia*), which included, besides comprehensive medical knowledge and practical skills, also morality and broad education – a feature shared with standards for the ideal physician.³³² This might, as Flemming suggests, contrast with the (imagined) figures of the *obstetrix* who were closely associated by male authors (e.g., Pliny) with magical practice, ‘dirt pharmacy’, and all kind of shenanigans.³³³

As an important source of information about these female practitioners, scholars build on the numerous funerary inscriptions that mention women’s professions or praise certain aspects of their medical art. The Latin epitaphs are more numerous and provide more information about the women who were often slaves or freedwomen (a characteristic shared with wet nurses)³³⁴, a social marker not present in the Greek sources.³³⁵ From textual sources and other evidence, scholars concluded that the *maia/obstetrix* did “much more than just deal with childbirth, and they certainly practiced a form of the *iatrikê technê*, but their domain is definitely gendered.”³³⁶ This gynaecological and more general medical knowledge and service offered to their patients might explain some competition with male doctors and their denigration of female experts as “traditional healers” associated with lower practice and superstitious ‘folk medicine’ in ancient tradition and modern scholarship alike.³³⁷

As the previous discussion has shown, midwives figure in different Christian texts and contexts. These female experts played not only a central role as experts assisting during birth, but were also portrayed as offering gynaecological and other medical services to women during pregnancy and beyond. While some sources focus on the role of the midwife as inspecting women’s virginity, some texts (e.g., *The Protevangelium of James*) discursively mark this function

³³¹ See Pliny, *Natural History*, 28.23 and 81 (on midwives’s recipes of *Salpe*); King 1986, 1995 and 1998; Totelin 2009; Dean-Jones 2018.

³³² See Ecça 2017; Laes 2010; French 1986; Ricciardetto and Gourevitch 2020; Gourevitch 2000; King 1998, 172–187; Demand 1994 (esp. chs. 4–6), 71–120; and Hanson 1994. See also the praise of the midwife of Boethus’s wife by Galen (Galen, *On Prognosis*, 8.6, 112, 10–15). Cf. the ideal of the morally impeccable and god-fearing physician outlined in Sirach 15 and in Philo’s works.

³³³ See Flemming 2007, 271–276, and 2013, 278–279.

³³⁴ See King 1991; Penniman 2015 and 2017.

³³⁵ Laes 2010 and 2011; Kosmopoulou 2001, 299 f. and 316 f.; Flemming 2013a; Demand 1995. On the rare mentioning of *iatromaia*, see the late antique inscriptions (3rd–4th c.) in CIL 6, 9477 f. Cf. Totelin 2020 on Phanostrate whom she sees as high level medical practitioner combining gynaecological and other knowledge. Cf. Ricciardetto and Gourevitch 2021 on Graeco-Roman Egypt.

³³⁶ Flemming 2013a, 288. Totelin 2020 suggests that Phanostrate as a high level medical expert combined both fields of *iatros* and *maia* within her practice.

³³⁷ See Flemming 2007; King 1998, 172–187. On medieval gynaecological and obstetrical practice, see Kruse 2012, esp. 113–141.

negatively and scholars have recently questioned in general the prevalence of vaginal examination in antiquity – by both male and female experts.³³⁸

Rabbinic sources refer to both the practical as well as the cultural dimensions of birth assistance, midwifery and nursing. Assistance at birth was most likely provided by women in the household, some female specialists who could be summoned from other places (cf. b. Shabbat 128b), but also by husbands.³³⁹ While Jewish women should not serve as a midwife (*me'aledet*) or wet nurse (*omenet/manika*) for others, gentile women were allowed to assist Jewish women within certain limits (m. Avodah Zarah 2:1).

Since various passages refer to potential harm that a midwife can do to the baby, the earlier Palestinian discussion focuses on creating a safe space for childbirth. According to Tosefta Avodah Zarah 3:3 a non-Jewish midwife may only practice “when others are standing around her. But between them alone it is forbidden since they are suspect of [endangering] souls/lives.”³⁴⁰ The Palestinian Talmud (y. Avodah Zarah 9,2, 40c) goes beyond this formation of a security cordon of witnesses by permitting only external manipulation but outlawing any techniques inside the woman’s body as well as pharmaceutical intervention (root portion/abortives). However, if the practitioner is regarded as a *hakhamah* (חכמה), an experienced and thus trustworthy expert, who is compared to a professional physician, those practices seem to be allowed which may point to a broader spectrum of female medical expertise.³⁴¹ The Babylonian Talmud (b. Avodah Zarah 26b) contains some teachings that forbid any interaction with non-Jewish midwives and wet nurses, even if supervised, since these women would know how to employ a ruse in order to harm or kill the Jewish unborn/newborn on the sly – an idea probably based on ancient Mesopotamian concepts of demonic threats.³⁴² In Talmudic Texts as well as in some midrashic traditions, one finds narratives, mostly relating to the Hebrew midwives (*Puah* and *Shifra*) in Exodus 1:15–21. These passages describe the central role of the midwife as a cultural

³³⁸ See Lillis 2017, 292–311 and 2023 (in this volume); Vuong 2013; Castelli 1986.

³³⁹ Cf. b. Shabbat 54b on a rabbi who provided help during childbirth (see Amsler 2023, 416).

³⁴⁰ This rule seems to be rather in line with regular or ideally imagined contexts for birthing in a Roman household, which required midwives and assistants as well as witnesses (probably in order to supervise the birthing process and to avoid any manipulation). See Laes 2010. Cf. Soranus *Gynecology* 2.5.1 (53, 12–15): “There should be three women helpers, capable of gently allaying the anxiety of the gravida ...”. See Temkin 1991a, ad loc.

³⁴¹ See Palestinian Talmud (y. AZ 9,2, 40c): “She (the non-Jew) assists at birth [as a midwife only] from the outside, but not from the inside. [An explanation]: she shall not put her hand into her (the birth giving woman), so that she does not crush the embryo in her womb; and she shall not let her drink a potion/cup of roots [variant: infertility]”.

³⁴² For the female demon *Lamashtu* disguising as a midwife/nurse, see Stol 2000, 230. Cf. also Scurlock 1991.

transmitter and a guardian of Jewish ethnic survival, which has some parallels in Roman culture.³⁴³

11.3. Bridging the Gap: Medical Women Among and Beyond the Midwives

Besides gendered health professionals (i. e., *maia/obstetrix*), some scarce ancient sources hint at other women with an even broader medical horizon. As mentioned before, scholars have noted that in the early Greek and other ancient medical texts, female expertise was reduced to a “shadowy presence”, while substantial parts of pharmacological and other medical knowledge in these sources might have been based on female expertise and practice.³⁴⁴ In some instance, ancient authors, such as Scribonius, Pliny, or Galen make explicit (even named) reference to female practitioners and their recipes which are not specifically linked to gynaecology or obstetrics.³⁴⁵

Those women who were referred to as *medica* or *iatrix* probably had expertise in various medical fields and stressed their comprehensive knowledge and practice.³⁴⁶ They came from various social backgrounds (slaves, freedwomen and freeborn) but these reliable sources are rather scarce. From the few epigraphical portrayals and other artefacts (instruments) one may not always derive the exact scope of their profession. Scholars have argued that the knowledge of women experts, similar to that of male practitioners, was multifaceted ranging from high erudition (*medica philologa*) to rather pragmatic or practical approaches.³⁴⁷

The example of *Agnodike*, often belittled as the “first midwife”, might actually account for women who aspired to master the art of general medicine, not only gynaecology, using disguise to overcome the gender gap and to learn from and practice with male physicians. While the camouflage granted her entry into the world of male expertise, her very femaleness functioned as the door opener to put her expertise to practice for and among women.³⁴⁸

³⁴³ See Raveh 2014; 56–73; Cf. the role of midwife (and wet nurse) as educators in Laes 2011; and Penniman 2015 and 2017, 44–51.

³⁴⁴ Citation in Dean-Jones 2018, 249. See *ibid.*, 248–250; Hanson 1998; von Staden 2008, Totelin 2009 and 2018.

³⁴⁵ See Flemming 2007, esp. 263–268, and 2013, 277.

³⁴⁶ Besides *iatrix/medicae* and *maiai/obstetrics* one finds also the hybrid *iatromaeae*. For the epigraphical evidence, see Flemming 2000, 383–391.

³⁴⁷ See Gourevitch 1984, 217–232; Flemming 2000, 35–37; 2007; esp. 258–2013, 282–289. For learned medical women and ancient professional literacy, see Flemming 2000, 386 (Naevia) and 2007, 260–262.

³⁴⁸ See King 1986 and 1998, 181–187. Von Staden 2008 rightly points out that this designation and the limitation of her knowledge is ahistorical, since midwives were known earlier which would make a general medical erudition more likely. Cf. Hanson 1996 on the entanglement of *maia* and motherhood. Dean-Jones 1995, 47, n.23 argues that the apocryphal story about (H)Agnodike uses her apprenticeship with Herophilus, as the renowned medical expert and author of the treatise “Midwifery”, to bolster her status.

In contrast to most ancient Egyptian and Mesopotamian texts, female medical experts figure also in various Greek and Latin texts as sources of various teachings. Usually, especially in Pliny's *Natural History*, the named women (e. g., Elephantis, Salpe, Lais, Sotira, Olympias of Thebes, and Antiochis) are invoked as transmitters of knowledge about female bodies – be it gynaecological, pharmaceutical, or generally concerned with women's health. Some are marked as obstetrics and thus connected to an anonymous collective and their medical practice (e. g., use of bodily fluids as remedies) who featured frequently in Pliny's discourse.³⁴⁹ Similarly, Aspasia surfaces exclusively as a major authority within the gynaecological part (book 16) of Aetius' medical compilation, while her pharmaceutical approaches and surgical techniques also impressed later writers such as Paul of Aegina.³⁵⁰ In a similar vein, the late antique figure(s) of Cleopatra/Metrodora were connected by Galen, Aetius and Paul to tractates on *Gynaecia* or *Diseases of Women*.³⁵¹ Only in rare cases, medical women make an appearance outside of gynaecological discussions, such as Olympias in Pliny, or various others who are associated with medico-cosmetic recipes.³⁵² Galen constitutes an exception since he tends to ascribe (groups of) general recipes or certain remedies outside of gynaecological therapies to various named women (e. g., Aquilia Secundilla, Antiochis, Fabylla of Libya, Spendousa), as might also be the case with Salome's recipe discussed by Tal Ilan in this volume.³⁵³ An exceptional attribution among these women is certainly Cleopatra whose name is ascribed to several medical recipes,

³⁴⁹ See Flemming 2000, 39, n.13; 2007, 271–275, esp. 275: “‘Midwives’ – named or otherwise – offer a similar service for a particular strand of Greek folk knowledge, concerned with the body, fertility and other ‘natural’ aspects of life: that is a way of legitimating and, to a degree, exoticizing it, since ‘women’s secrets’ are thus being revealed by the experts.” Cf. the analysis of the corpus and transmitters of “women’s secrets” in Jewish Hebrew medieval sources in Caballero Navas 2004; 2021; and 2023 who identifies similar functions of attributions. See also King 1998, 172–187. For medieval developments, see Green 200 and 2008; Kruse 2012 and 2013.

³⁵⁰ See Flemming 2007, 270–271; Luccioni 2009. Cf. Scarborough 2013, 751–755 speculates if Aspasia in Aetius might be a reference to the empress Theodora herself or, at least, her midwife/physician and confidant. In stressing Theodora's rise from among the prostitutes and concubines, Scarborough invokes the shady connection between prostitutes and *obstetrices* as experts of contraceptives and abortifacients already present in Pliny (NH 28.70). Cf. Flemming 2007, 274: “*obstetrices* and *meretrices* are identified and employed as experts in a type of innate female knowledge that is essentially about being a woman, rather than being based on any kind of training or theoretical understanding.”

³⁵¹ See Dean-Jones 195, 47–48; Congourdeau 1994; and Storti 2018. Flemming 2007, 276–278, mentions attributions to Cleopatra or Cleopatra's *medica* Theodote that appear in Caelius Aurelianus and Muscio. On the attribution and intermingling of texts in their transmission, see Green 2000, 8–10, 24.

³⁵² See Calà 2020; Flemming 2000, 40 refers to Elephantis and Cleopatra in Galen as authors of recipes or a complete *kosmetikon*.

³⁵³ See Ilan 2023 (in this volume, 421–435). Flemming 2007, 264–268 suggest that most of Galen's mentions refer to actual female practitioners rather than female medical authors who still could be the sources of the knowledge in question since theory and practice often overlapped in the form of the practitioners' personal notebooks.

to a *kosmetikon* (guide to beauty and a well ordered body), and even to alchemical treatises.³⁵⁴ The example of the widely used attribution of knowledge to “Cleopatra”, far beyond Galen, demonstrates that these references are used as anchors within a certain tradition that invoke historical female authority or credibility – be it the wisdom, exoticism and beauty of an Egyptian queen or the homophony with the mother of a great king (Olympias, Alexander the Great). However, sometimes these referential anchors were less prestigious and associated with erotic advice literature, medico-sexual recipes, or, even worse, the realm of courtesans and prostitution, which often led to a blurring of boundaries between these figures.³⁵⁵

This would support the observation that such a strategy of attribution could be used as disguise or pseudonym, both by male and female authors. Some scholars have straightforwardly embraced the theory of historical female authorship, whereas others were overtly skeptical and interpreted all female names as literary fictions of the male authors. More recently, studies have mostly argued for a middle-way that pays attention to many doubtful attributions and other philological and historical caveats, while focusing on the possible female background of medical knowledge (quotation) without ignoring the cultural and epistemic functions of frequently used pseudonymity.³⁵⁶

Rabbinic texts, as mentioned above, label some female practitioners as ‘*chakhama*’ (חכמה), often haphazardly defined as only relating to midwifery. While in medieval time this designation would become the technical term for a midwife, its use and scope in late antique Jewish tradition seems much broader. The texts appear to imply a woman with medical-practical experience and knowledge, certainly regarding midwifery but also beyond, who could be on eye-level with a *rofe uman/rofe mumhe* (‘expert/skillful/trustworthy physician’). Consequently, Talmudic texts suspend various restriction regarding healing by non-Jews, in case of

³⁵⁴ See Flemming 2007, 268–270. Cf. Tsoucalas et al 2014 for a survey of attributions to Cleopatra. In Talmudic literature (t. Niddah 4: 1 7; b. Niddah 30b) a “Queen Cleopatra” is portrayed as engaging in empirical experiments regarding embryology but using dissections of slaves and similar approaches. See Meacham 2000; and the more critical take in Shinnar 2021.

³⁵⁵ Flemming 2007, 273–275 mentions such connections regarding Lais (courtesan) and Elephantis (author of erotic advice literature), and Salpe (lesbian author of a book, an erotic paignion). See also *ibid.*, 274: “This interchangeability, and the inherently female function of these figures and categories, thus renders both attempts to distinguish between, for example, Elephantis (or Salpe) the medical writer from Elephantis the pornographer, and to identify any actual women, either midwives or prostitutes, behind these denominations, pointless and misguided.” Cf. Flemming 2000, 40–42.

³⁵⁶ See Flemming 2007, 271–276 who discusses the positive (and positivistic?) approach in Lloyd 1983 and others as well as the negative judgment by Wellmann. See esp. *ibid.*, 276: “The classical practice of pseudonymity and the prevalence of apocryphal traditions in these discursive domains, do not, however, completely rule out the possibility of female authorship. A real woman might have written under the name of ‘Cleopatra’, or ‘Aspasia’, for example, for many of the same reasons that a man might.” See also Dean-Jones 1994, esp. 31–33.

reputation, practical skills and (theoretical) knowledge in medical issues which would have made a difference to the rabbis.³⁵⁷

In addition, in rabbinic texts, one encounters several women who are connected to medicine and healthcare beyond the practice of midwives and nurses who are not marked by any of the aforementioned labels. The most prominent figure among them is *Em shel Abbaye* (lit. 'the mother of Abbaye') whose identity and background has a subject of lively scholarly dispute.³⁵⁸ Regardless whether she is the mother, foster-mother or nurse of the scholar Abbaye, *Em* – even as a possibly fictitious character or symbolic key figure – similar to 'Elephantis', 'Cleopatra', 'Aspasia' and others, seems to represent the important contribution of women to the rabbis' discourse on medical knowledge and practice. *Em* as well as other female experts, only few of them named, cover a broad range of healing expertise not at all confined to gynaecological matters. This includes various concrete recipes, approaches to and explanations of several illnesses as well as important details about the production and use of apotropaic devices such as amulets or preservation stones (against abortions, still-births, and complicated pregnancy). As mothers (in-law) and wives, these women are often directly involved in producing remedies and items, performing certain cures or caring for their scholarly sons and husbands.³⁵⁹

Monika Amsler, in her contribution to this volume, argues that *Em*'s advices regarding the health of the newborn in b. Shabbat 134a should not be understood as gynaecological or obstetric expertise in the first place. Rather, this knowledge might have been derived from another area of frequently gendered expertise in the ancient household, namely (small) livestock breeding and veterinary medicine.³⁶⁰ This study opens a possible conversation with recent research on premodern female healing expertise in which the realms of medicine, cooking, gardening, religion and other relevant fields of knowledge and practice merged.³⁶¹

³⁵⁷ Note the similarities to Greek and Latin designations for female medical experts (*iatrine/medica/iatromaia*) with a biased scholarly understanding limiting female medical expertise to the realm of the female body and childbirth. Cf. Laes 2010; Schulze 2005.

³⁵⁸ For a survey of relevant passages, see Kottek 2010. Ilan 2002 and 2006; and Kedar 2018 argue that *Em* was a female doctor, healing expert and practitioner, whereas Geller 2004, 8–9 questions this assumption and interprets *Em* as an Aramaic corruption of Akkadian *ummanu* ('scholar/expert'), thus, referring rather to a male scholar who served as an informant for the sage Abbaye. On the recipes of *Em*, see also Veltri 1997, 230–238; Lesses 2001, 362–364; Valler 1999, 161–172.

³⁵⁹ Besides pharmaceutical recipes, one finds also knowledge of anti-demonic remedies or defensive items. Cf. a lamb, a rattle (nut in a copper vessel) or the physical presence of one's wife in b. Berakhot 62a; the copper and gold tube against a demonic threat after the bite of a 'mad dog' in b. Yoma 84b.

³⁶⁰ See Amsler 2023 (in this volume, 399–419).

³⁶¹ See, in particular, the recent studies by Draycott 2019, esp. 94–153; Totelin 2009 and 2020a. For later periods, see Leong 2018; Barker and Strocchia 2020.

Pharmaceutics, as has been stressed for the early Greek medical texts, was another important realm of female knowledge as in the narrative about Rabbi Yohanan and the female pharmaceutical expert (*Timthinis/matronita*) mentioned below.³⁶² Tal Ilan's contribution in the present volume highlights rabbinic references to women's recipes and cures that may support her interpretation of a woman named *Salome*, mentioned by Galen, as a reference to a Jewish female healing expert. Ilan also touches upon the rather frequent phenomenon of 'silencing' female experts, both in ancient medical and other literature as well as in scholarship that tried "to interpret these women out of existence, or barring that possibility, to belittle their achievements, mostly out of sheer disbelief [...]"³⁶³

For, in ancient cultures and modern scholarship, female medical expertise and practice was far from being always openly embraced and valued. Competitors, often male healing experts, and other (often religious or political) authorities used well-thought strategies to marginalize or confine the role of women in ancient medicine. For instance, one finds evidence for drawing a close connection between female medical experts and non-rational healing, magic or even witchcraft and pertaining approaches (amulets, incantations, talisman etc.). While female expertise might have been tacitly exploited and taken advantage of, women as practitioners and their services suffered from the clear gender bias in ancient medical cultures, or what has reached us in textual transmission.

While not exclusively gendered similar denigrations were a common tool in the contested arena of the religious and medical 'marketplace' in late antiquity.³⁶⁴ As part of the contest of experts touting for clients, demotions and accusations were overtly and predominantly directed toward women (and foreigners).³⁶⁵

Similar patterns can be observed also in a medical anecdote from the Palestinian Talmud:

R. Abahu (Palestine, ca. 300 CE) [said] in the name of R. Yoḥanan: "Therefore, *šifduna/šof-dina* disease (צפדונה-צפדינה) is dangerous [to life]." [Once] R. Yoḥanan suffered from this [illness] and he went to the daughter of Dadmitian/Timthinis³⁶⁶ in Tiberias to get healed by her. In the evening [before Shabbat], he went up to her and asked: "Will I need anything [for my cure] for tomorrow?"

She said to him: "You do not need anything. But if necessary [take only] date stones (רעינין דתמרין וגל), the halves of them burned/roasted. And some say: [stones of] Nicolaus

³⁶² On the female healing expert, see Ilan 1997, 263–265; 2002, 191–195; and 2006, 167–172; Lehmhaus 2017a, 2017b, and 2019.

³⁶³ See Ilan 2023 (in this volume, 421–434, esp. 421).

³⁶⁴ For the competitive scene of experts who blurred or combined various fields of knowledge and the strategies of othering, especially aimed at women and foreigners, see Wendt 2016.

³⁶⁵ For the connection between female experts/practitioners in various realms and witchcraft, see the contributions in Stratton and Kalleres 2014; Murray 2007. On the competitive aspects, see Wendt 2016, esp. 6–36, and 114–145.

³⁶⁶ While y. Avodah Zarah 2,2 reads *Timthinis*, the doublet in y. Shabbat 14,4 reads *bat* (daughter of) *Domitian(us)/Da(d)mitinos*.

[dates] and husk/glume of barley (עור דסערין) [grains/kernels], and dried excrements of an infant (וצאזה יבושה דמיינוק). Pulverize [the ingredients] and anoint [yourself with them], but do not say anything to anyone!"

[However,] the next day he came and taught it in public [variant: in the study house]. Some say: she strangled herself. And some say: she converted to Judaism.

(Palestinian Talmud, y. Shabbat 14,4 [14d]/y. Avodah Zarah 2,2 [40d])

This brief narrative, which has a shorter parallel in the Babylonian Talmud (b. Avodah Zarah 28a), depicts the interaction between the sick Rabbi Yoḥanan³⁶⁷ with a, most probably, non-Jewish female healing expert as the non-rabbinic other per se. Although promising otherwise, the rabbi reveals the woman's recipe thereby exposing her expert knowledge and *techne*, with some serious, life-changing, if not life-ending consequences. In line with the above mentioned pattern, the male scholar exploits the woman's expertise, and subsequently conceals or even replaces female first-hand experience or technical knowledge through the adoption and inclusion into the authoritative body of (Talmudic) knowledge.³⁶⁸

11.4. Changing Perspectives:

Women as Patients and Experts Between Self-Knowledge and Peer-Medicine

Scholars of ancient medicine have pointed to the predominant male perspective of most available sources. This male approach was amplified in most ancient tradition by a threefold female silence. First, there is very little information about female medical authors and practitioners. Second, women in medical texts often were portrayed as rather ignorant, silent and passive patients and object of medical interest, the perfect "corollary of the talkative doctor".³⁶⁹ A third form of silencing comes with the emergence of ancient gynaecology based on female expertise. This process has been described for the Graeco-Roman tradition as "a male policy towards women, a *gynaeconomy*, which required the contribution of the doctors to make it more effective and which in this case consisted of legally sanctioned domination by fathers and husbands, indeed by men in general, over women's bodies".³⁷⁰

³⁶⁷ This is most likely an inflammation of the mouth that might harm the whole body. On the illness and the recipe, see Lehmhaus 2017a, 241–247, and 2017b.

³⁶⁸ For some more theoretical implications, see Lehmhaus 2017b. Cf. Ilan 1997, 263–265; 2002, 191–195; and 2006, 167–172, who discusses the figure of the female healing expert, her possible background and the rabbinic discursive strategies of "silencing women".

³⁶⁹ King 1995, 136. She explains: "The whole point of the Hippocratic assertion of the norm of female ignorance and silence is to make it obvious why the Hippocratic doctor is so necessary [...] Her mouth is closed, but her body is an open book for the man who knows how to read it." On female passiveness and the power gap between male physicians and female patients, see Demand 1998.

³⁷⁰ Rousselle 1988, 32. See ead. 1980. Cf. Manuli 1980, 1983. Dean-Jones 1995 tries to balance the diverging approaches of Manuli and Rousselle by searching for the different ways through

Very similar power dynamics have been noticed also in Jewish, and particularly rabbinic, sources that objectified women, and particularly women's bodies which served as a fertile ground for male imagery. Theories and concepts constructed largely by men, albeit based in parts on female informants, gained cultural prestige and religious-legal authority exercised by rabbinic sages over their female clients.³⁷¹ Likewise, for Graeco-Roman medicine, King observed that "explanations for the woman's illness would thus have needed to convince the *kyrios*, rather than the patient, and may have been most successfully phrased in a way which reinforced his views of female nature."³⁷²

Accordingly, in various ancient tradition we find a medical, as well as general cultural, discourse about female bodies and women's ailments that is predominantly populated and shaped by men. Male experts, be it practicing doctors or medical writers, seem to talk to each other and their male addressees who together decide over the heads of those in the focus – namely their female patients and women in general. However, in recent years, studies have increasingly challenged this focus on the male perspective dominating not only the ancient sources but also pertaining scholarship. This opened up the scholarly discourse toward new approaches of 'finding women's voices in otherwise unpromising sources'.³⁷³ This happened often through the gynaecological texts, containing the lion share of pharmaceutical knowledge in the so-called Hippocratic Corpus or through case stories in other authors. The information has been understood as male appropriation of an old tradition of female medical (self)cures. As mentioned above, these recipes comprise a treasure trove of ingredients, many of which are not known from remedies prescribed for ailments in men. In those specific collections, which are not attributed to (named) female healers at all, scholars have begun to trace female knowledge and conceivable hints to "women's voices".³⁷⁴ This search, however, has to grapple with some major caveats.³⁷⁵ One major issue, also felt in other ancient traditions, is that neither the focus on 'male oppression of women' nor the

which Hippocratic authors and ancient doctors could gain knowledge about female bodies – both by direct examination or observation and through reports of female experts or patients themselves. On the marginalization of women in obstetrical practice in later periods, see Blumenfeld-Kosinski 1991, esp. 91–119.

³⁷¹ See Fonrobert 2000; Baker 2002. On Sasanian cultural parallels and differences, see Secunda 2020; and Strauch Schick 2023 (in this volume), 342: "In describing women's bodies in terms of authoritative masculine knowledge, women are both excluded from the discourses which define and circumscribe them and are denied having true knowledge of their own bodies"

³⁷² King 1998, 22.

³⁷³ King 1995, 136–137. Cf. Hanson 1998.

³⁷⁴ See Hanson 1990 and 1998; Dean-Jones 1995 and 2018. For a more nuanced analysis, see Totelin 2009, 2011, and 2020a.

³⁷⁵ Von Staden 1992 pointed to the connector between some "dirt pharmacy" for gynaecological ailments and the image of female impurity. King 1995 stressed that the interpretation of Hippocratic gynaecological pharmaceutical knowledge as traditional women's lore might reflect the "nostalgia of women in today's world" (138).

search for ‘female knowledge stolen by men’ can accommodate the complexity of the ancient medical discourse and practice. The knowledge of women and female voices are always encapsulated in and fitted to the broader theories about women’s bodies and ailments transmitted via decidedly male channels (authors, audiences, practitioners, patients etc.). Moreover, the women figuring in those texts, be it as patients or, very rarely, as female practitioners or experts, may have oscillated between historical female experts and fictitious images of such medical women as presented by male authors.³⁷⁶

However, it was precisely the dominance of male theories and concepts that offered several loopholes and opportunities of agency to women whose subjectivity and sensations were given a prominent place as “evidence” in the medical discourse.³⁷⁷ The male judgement still filtered female opinions according to their reliability and trustworthiness, which was granted specifically to women or practitioners considered to be “experienced”. Accordingly, the duration (or abortion) of pregnancy and the onset of the menses, important in rabbinic texts, as well as various symptoms of female ailments could be used and manipulated by women in their advance as long as they comply with general ideas and normative expectations (i. e., being considered as “experienced”).³⁷⁸ The early rabbinic texts, for instance, state clearly: “she can attribute [the bloodstain] to any reason/issue that she is able to attribute it to” – within the frame determined by the male religious discourse.³⁷⁹

³⁷⁶ See King 1995 who assesses the two dominant approaches and points out possible methodological pitfalls in the studies by Manuli 1980; Rousselle 1988; Hanson 1990 and 1992a; and Dean-Jones 1994. For the references made to women as authors of medical works or teachings, see Flemming 2007, esp. 276: “there is no woman who unquestionably makes the step up from general participant in pharmacological writing to full-blown authorship. This has ended up being a discussion about the circumstances in which men might adopt, might create, a female literary voice, more than about that voice itself.”

³⁷⁷ Dean-Jones 2018, 246: “many Hippocratic authors evince appreciation for input from their female patients in a way that has no parallel with their male patients. This is at least in part due to a belief in a cognitive break between what they perceive as a subjective experience of the male body and the experience of being female, which they can access only at second-hand”. Cf. b. Niddah 2a–3b and 57a; and Strauch Schick 2023 (in this volume), 342: “Ultimately, however, the overwhelming absence of women as participants in these discourses and the lack of texts attesting to their own experiences leave us largely ignorant as to the effects that the masculine reconstruction of the female body had on the lives that women actually lived and their own understanding of their bodies”

³⁷⁸ See King 1995, esp. 141–145 (Hippocratic texts); Hanson 1990, 309 f.; and Dean-Jones 1995, 49 (on Hippocratic physician’s distrust of female opinions about their own body); Richlin 1998, esp. 206–216 (female self-help, specifically regarding pregnancy, birth, contraceptions, abortions, and care of the newborn). On rabbinic texts, see Fonrobert 2000, 70–102 (on the beginning of menstrual impurity and sensations) and 117–127 (on blood stains), and 128–159 (female agency); Cohn 2011; Labovitz 2014; Hoffmann Libson 2020. Cf. also the discussion on “virginity” and bleeding in rabbinic sources above.

³⁷⁹ See m. Nid 8:2, t. Nid 6:17, t. Nid 7:4.

While the elite texts often appreciate female self-knowledge, albeit appropriating or “silencing” it, they rather condemn active self-help by women. Still, transcending the realm of ancient medical literature, the combination of the approaches described above offers a better view on the medical pluralism and the broad arena of female self-help and peer-to-peer medicine, be it within the household and family or beyond.³⁸⁰ In addition, the importance of the patients’ (women and men) perspective and their role in the medical discourse and practical healthcare has been emphasized across various subfields in the history of medicine and beyond.³⁸¹ Also new approaches to material artefacts, specifically epitaphs or inscriptions referring to midwives or women with medical knowledge, depictions of relevant practices, and votive offerings have given new importance to the role of female experts or practitioners and the diversity of women’s involvement in medicine and healthcare.³⁸² Moreover, besides the household or the encounter with medical personnel also other sites come into sight as important spaces of medical and body-related practices, primarily healing sanctuaries and temples of deities connected to healing and/or women.³⁸³

Despite the critique of learned physicians, many cures and recipes for women were prepared and applied by other women who also provided other forms of care. First, besides family members, scholars see wet nurses and midwives as central figures of female bodily and medical services. Midwives probably offered a greater range of practices to women that went beyond the assistance during pregnancy and birth but included also gynaecological and general medical expertise. As in the case of Phanistrate, praised as *iatros*, it was precisely “her claim to be

³⁸⁰ Dean-Jones 2018, 248: “A more probable explanation is that many women preferred to turn to traditional female healers when they fell ill, and availed themselves of Hippocratic medicine only at the insistence of their husbands or fathers [...]” See also Musgrove 2017, esp. 77–97 and 99–123; Draycott 2019, esp. 94–153; Groff 2019, who examine medical sources and literary, legal or religious texts in order to broaden the perspective. For later domestic care, especially in childbirth settings, see French 2021, esp. 155–189.

³⁸¹ For a broader view on the patient approach in ancient cultures, see the contributions in Thumiger and Petridou 2016; or in Johnson 2020; and the studies by Shinnar 2019, 130–176; and Musgrove 2017, 54–75.

³⁸² See e. g., Kosmopoulou 2001; Laes 2010 and 2011; Demand 1995; Flemming 2000, 2007, 2013a and 2017; Oberhelman 2014, 48 f., 53, and 57 ff.; Graham 2013; Carroll 2019. As for the surgical instruments described by Bliquez (1995), it remains questionable if those were used by exclusively by male or female practitioners for gynaecological purposes.

³⁸³ Demand 1994 (esp. ch. 5), 87–101, discusses that women frequently attended the gods, specifically Artemis, for particular “female problems”. Alongside the deities and at the holy sites practiced most probably the *manteis*, mainly women who combined religious and medical practice into an art that was strongly condemned by early Greek medical authors. Cf. *ibid.*, 95, on the critique of male authors toward the *manteis* whose deception “deluded women into making expensive dedications to Artemis.” For the whole discussion, see *ibid.*, 87–101. Cf. King 1998, 75–113 (on women’s healing sacrifices and Asklepios). Cf. LiDonnici 1992; Ionescu 2018; Scott 2018 (Epiaurian miracle cures); and the reference in the preceding footnote on votive offerings; Dean-Jones 1995, 45–48; Hanson 1995b; Tsatsou 2019; Flemming 2016 and 2017.

a *maia* that might have allowed Phanistrate to gain the trust of female patients, as it brought with it promises of drugs and techniques that male *iatroi* did not entirely master (and sometimes distrusted).³⁸⁴ Second, scholarship has pointed out female medical experts in other areas such as pharmaceuticals, diet and regimen, or apotropaic practices. Finally, some women provided medical or pharmaceutical advice also or primarily for male patients. While ancient sources feature only rare glimpses of this constellation, such a scenario of mutual treatment and a smaller gender gap is considered more likely in the provinces, especially in the Roman West. Moreover, the variety of female medical practitioners seems to mirror the diversity and differentiation of professionalization among their male counterparts.³⁸⁵

12. From Female Bodies to Gynaecological Corpora – Women and Medicine Ancient Textual Traditions

The term “gynaecology” as such is problematic when applied to antiquity because it is evocative of a rather modern branch of medicine³⁸⁶ and thus might be misleading in relation to its position in ancient medical thought. However, as has been shown beforehand, ancient cultures were deeply interested in questions and topics related to the female body, its anatomy, physiology, and pathology as well as its role in sexuality, pregnancy and birth. This interest is especially reflected in various passages, treatises or collections written in antiquity that can be termed “gynaecological” in a broader sense. As we have seen already in the previous sections, such knowledge was part of the embodied experience of women, often even developed by them into a specific branch of transferable expertise – in theory and practice. While this field of medical sciences was, thus, derived from women, it was nevertheless shaped by “the value-laden conceptual screen of traditional Greek male assumptions” and has been transmitted through a chain of male authors and interpreters.³⁸⁷

³⁸⁴ Totelin 2020b, 14. See also King 2011, Vuong 2013; and the discussion above.

³⁸⁵ See the discussion above on female advice to women and men, specifically to the sages as sons and husbands, in rabbinic texts. On Roman culture, see Flemming 2000, 33–79; 2007 and 2013, 289; Nutton 2004. On the historical and literary imbalance of the female medical record, see Flemming 2007, 279: “These women may have been outnumbered, but they were full participants none the less, not separated or differentiated from their male colleagues (to whom they were often married, or otherwise related). Their presence is well recorded, and should now be recognized, in these terms.” On the longue duree of gynaecological practice and female medical expertise, see Kruse 2012 and 2013.

³⁸⁶ See Gourevitch 1996; Couto-Ferreira 2018c: 110–112. In Greek texts the term γυναικεῖα is used to refer to this field of medicine. For a broad collection of relevant texts, see Schubert and Huttner 1999.

³⁸⁷ See Demand 1994, 65. Cf. the whole chapter 3 (ibid., 48–70). See Hanson 1990, 314: “The medical writer is projecting upon the woman a man’s experience”.

In ancient Egyptian culture, similar to ancient Jewish and later rabbinic traditions as we shall see in a moment, information about gynaecological issues in the widest sense is rather scattered in various textual corpora, including teaching texts, prognostic texts, recipes and other therapeutic advice (incantations/spells). General Egyptian medical texts revolve around the male body as the standard model, similar to Greek medical texts, and no specialized corpus on women's medicine can be found. Still, those medical teaching texts dealing with women were not limited to reproductive medicine but also addressed various other pathologies in women. In addition, several other non-medical texts (astrological, mythological, religious) contained valuable information on the female body's anatomy, physiology and medical practice.³⁸⁸

In ancient Mesopotamia, similar to classical Greek and later Graeco-Roman works, we can observe a tendency toward the creation of a medical subfield with its own pool of textual sources.³⁸⁹ However, those gynaecological texts would be found in the differentiated realms of ancient Babylonian medicine: medical, ritual and omen texts. Akkadian traditions dealt, of course, extensively with health-issues related to women's reproductive physiology and other ailments, their aetiology and appropriate therapies. However, while they provide an abundance of pathological information and pertinent prescriptions, they mostly lack in-depth explanations or theories of female anatomy and physiology.³⁹⁰

As mentioned before, biblical chapters, especially in Leviticus, deal with purity regulations and, accordingly, touch on issues regarding fluxes, menstruation, pregnancy, miscarriages, and birth. Other pertinent information can be found in the narratives of the Pentateuch or the historically inclined texts (e. g., Kings, Chronicles, Samuel) or the prophetic traditions. Medical experts (physicians, midwives) are mentioned in very different contexts, and were not always depicted in positive ways.³⁹¹ However, while those passages reveal something about the cultural conceptions of these subjects in the world of the biblical authors, such mentions are rather terse and without much or any medical interest.³⁹² As for the so-called post-biblical or apocryphal traditions, while containing some general information on medicine/healing and therapies, texts like Ben Sira (Sirach), the Book of Jubilees or Tobit have rather little to say about women's bodies and related health issues. In

³⁸⁸ For a concise survey and pertaining literature, see Pommerening 2023 (in this volume), 133–174; Töpfer 2014.

³⁸⁹ In the first millennium BCE, longer treatises concerned with women's health formed discrete sections within comprehensive medical compendia (both diagnostic and therapeutic), see Steinert et al. 2018; Geller 2018; Schmidtchen 2018; Steinert 2020b: 163, 167.

³⁹⁰ Steinert (In preparation); Couto-Ferreira 2013; Minen 2018; Scurlock 2014a, 245–259; 571–619; Steinert 2013, 2017a, 2020a.

³⁹¹ Cf. the morality of the Hebrew midwives in Ex. 1:15–21 vs. the divine punishment of kings who turn to the help of (foreign?) physicians instead of praying.

³⁹² Cf. Philips 2006; Bauks 2021; Bergmann 2008 and 2019; Olyan 2019; Stol 2000; Feinstein 2014, esp. 42–99.

principle, the same holds true regarding texts from Qumran. However, due to the heightened interest in religious rules (Halakha) concerning ritual im/purity and communal relations, one finds discussions about marital relations, menstruation, bodily discharges, and childbirth with this specific focus, as has been mentioned before.³⁹³

In the Greek tradition, one finds among the numerous texts transmitted in the so-called *Corpus Hippocraticum* (5th–3rd centuries BCE)³⁹⁴ a large proportion of the earliest treatises exclusively devoted to women, their bodies and the diseases affecting them.³⁹⁵ The treatises *Nature of Women* (*De natura muliebri*/Περὶ γυναικείης φύσεως) and *Diseases of Women* (*De mulierum affectibus*/Γυναικείων) deal with affections of the uterus, with pregnancy and related topics, such as conception, childbirth or abortion, as well as with affections of the external genitals. In *On Sterility* (*De sterilitate*/Περὶ ἀφόρων ἢ γυναικείων τὸ τρίτον),³⁹⁶ the author(s) discuss several aspects of female infertility including possible causes and therapeutic advice. *On Diseases of Girls* (*De virginum morbis*/Περὶ παρθενίων) deals with affections of unmarried women that was thought to be caused by a flux of undischarged blood to the heart and the diaphragm and could be cured by marrying off the girl who will get pregnant.³⁹⁷ Various treatises are concerned with questions of conception, spermatology and embryology, causes and consequences of superfetation or remarks on childbirth and possible complications.³⁹⁸ *On the Eight-month Infant* (*De octimestri partu*/περὶ ὀκταμήνου) and *On the Seven-month Infant* (*De septimestri partu*/περὶ ἑπταμήνου) argue that pregnancy is, just as any affection, subject to critical phases which account for the notion that babies

³⁹³ For a general discussion of relevant second Temple traditions, see the contribution in Xeravits 2015; Harrington 2019, esp. 169–220; Erbele-Küster 2019. For the Qumranic discourse, see Wassen 2005, esp. 45–58, 71–89, 97–106, 167–205; Harrington 2004, esp. 94–110; Hieke 2015; Baumgarten 1992.

³⁹⁴ For a general overview of the *Corpus Hippocraticum* including questions of authorship, dating or chronology of the treatises, see Craik 2015; van der Eijk 2016; and Dean-Jones 2018, 247 f. (brief summary of all texts on women).

³⁹⁵ On the earliest accounts, see Dean-Jones 1996, 10. Byl 1989, 52 suggests that about one quarter of the treatises of the *Corpus Hippocraticum* deals with gynaecological topics.

³⁹⁶ This text was probably a continuation of the second book of *Diseases of Women*. For further remarks on the relation of the treatises *On the Nature of Women*, *Diseases of Women*, and *On Sterility*, see Dean-Jones 1996, 10, n. 34 and 10 f.; Gourevitch 2013.

³⁹⁷ King 1996 (on “green sickness” etc.), King 1998, 188–204; on lovesickness, see McNamara 2016.

³⁹⁸ These include: *On Generation* (*De genitura*) and *On the Nature of the Child* (*De natura pueri*); on their relation, see Dean-Jones 1996, 11 f.; and Giorganni 2006; for the text, see Lonie 1981; *On Superfetation* (*De superfetatione*), and *On Excision of the Foetus* (*De exsectione foetus*), which addresses complicated births. On the thematic spectrum discussed in these treatises, see also Dean-Jones 1996, 12: “*Superf.* and *Foet. Exsect.* deal only briefly with the specialized subjects which give them their titles, and in the main they reiterate material in *Mul.* 1–2 and *Steril.* in shortened form.” See Lienau 1971.

which are born after/in the eighth month of pregnancy are non-viable because in them two of these critical phases clash.

Apart from some scattered discussions in other works of early Greek medical traditions³⁹⁹, we know of a work attributed to Diocles (4th century BCE)⁴⁰⁰ entitled *περὶ γυναικείων* or *γυναικεία* (“[On] matters related to women”)⁴⁰¹ whose extant fragments in other text deal with the anatomy of the female reproductive organs,⁴⁰² reproduction and embryology⁴⁰³, and gynaecology.⁴⁰⁴ Aristotle (4th century BCE) elaborated in his biological works (*On the Generation of Animals*, *History of Animals* and *On the Parts of Animals*) on the female nature and especially on the female role in reproduction.⁴⁰⁵

Medical works of Hellenistic times, such as the already quoted work *On Midwifery* (ὁ μαιωτικὸς λόγος) by Herophilus (3rd century BCE)⁴⁰⁶ are only fragmentarily preserved. Latin encyclopaedic works, such as Celsus’ *On Medicine* (*De medicina*, 1st century CE) and *Natural History* (*Naturalis Historia*) of Pliny the Elder (1st century CE), include female physiology or affections as well as Dioscorides (1st century CE) in his pharmacological work.⁴⁰⁷ Soranus’ *Gynaecology* (*Gynaeciorum libri*) from the beginning of the second century CE is the most extensive gynaecological treatise that has come down to us. In four books this treatise “deals not only with female physiology, pathology, conception, pregnancy, and parturition, but also with the care of the newborn infant and young child”.⁴⁰⁸ His teachings remained influential for many centuries to come.⁴⁰⁹

³⁹⁹ Dean-Jones 1996, 12: “In addition to the exclusively gynaecological works, women are mentioned in other Hippocratic treatises, most importantly in the seven books of the *Epid.* – compilations of descriptions of endemic and epidemic diseases as well as individual case histories.”

⁴⁰⁰ Diocles’ fragments were collected in van der Eijk 2000 for text and translation, and van der Eijk 2001 for a commentary.

⁴⁰¹ Van der Eijk 2000, xxxiii.

⁴⁰² Diocles frg. 22–24c in van der Eijk 2000. Cf. van der Eijk 2001, 36–45.

⁴⁰³ Diocles frg. 40–48d in van der Eijk 2000. Cf. van der Eijk 2001, 79–108.

⁴⁰⁴ Diocles frg. 168–175 in van der Eijk 2000. Cf. van der Eijk 2001, 307–320.

⁴⁰⁵ For further information on the role of the female in Aristotle’s oeuvre, see Dean-Jones 1996, Mayhew 2004, Connell 2016 and 2021a; Gelber 2019; and various contributions in Connell 2021b. In particular, see Falcon 2021 and Hazmichali 2021 (early and late reception of Aristotle’s biology); and Bartoš 2021 (early Greek medical context of Aristotle).

⁴⁰⁶ For more on this work and in general on Herophilus’ gynaecology, see von Staden 2007/1989, 296–299.

⁴⁰⁷ For a detailed account, see Flemming 2000, 129–181; and Hewera 2011/2012.

⁴⁰⁸ For a translation, see Temkin 1965/1991; cf. the scholarly discussion in Dean-Jones 1994, 23; Flemming 2000: 230–246; Israelowich 2020; Scarborough 1991; Porter 2016.

⁴⁰⁹ On the afterlife of Soranus’ work, see Schäfer and Schäfer 2006: “the original Greek text was transmitted in the West alongside early Latin adaptations (the catechisms for midwives by Caelius Aurelianus and Mustio/Muscio – the latter was retranslated into Greek under the pseudonym of Moschion – and the fictitious dialogue *Liber ad Soteris obstetrix*, Ms. Laurentianus 73, 1, 9th/10th century); however, most influential were the short, condensed and restructured excerpts

While Galen (2nd–3rd century CE) mentioned female pathology in several passages of his treatises,⁴¹⁰ he only wrote a few devoted to gynaecological topics. Among them are the detailed discussion in *On the Anatomy of the Uterus* (*De uteri dissectione*),⁴¹¹ and *On Semen* (*De semine*) which deals with male and female semen and questions of reproduction,⁴¹² a text on embryology (*On the Formation of the Foetus, De foetuum formatione*)⁴¹³, and *On the Seven-month Infant* (*De septimestri partu*), almost only transmitted in Arabic and dealing with the dating of childbirth.⁴¹⁴

The now lost gynaecological work by Philumenus (2nd or 3rd century CE)⁴¹⁵ has been preserved in some fragments in Aetius of Amida's (6th century CE) *Medical Books* (*Libri medicinales*)⁴¹⁶ who belongs to the late antique medical compilers, together with Oribasius of Pergamon (4th century CE), and Paulus of Aegina (7th century CE). These prolific and creative authors of medical "encyclopaedias" selected, abbreviated and changed texts of earlier scholars, among them also fragments of earlier, often otherwise lost works dealing with gynaecology. Oribasius, in his *Medical Collections* (*Collectiones Medicae*), transmits the work of Athenaeus of Attaleia (1st century BCE) under the title "Regimen for Women" (δίαίτα γυναικῶν); while including the work of Rufus of Ephesus (1st century CE) under the titles "Regimen for women" (δίαίτα γυναικῶν) and "On regimen for young girls" (περὶ παρθένων διαίτης).⁴¹⁷ Aetius of Amida devoted one book out of sixteen entirely to gynaecological topics which testifies to the significance of this medical subfield.⁴¹⁸ Interestingly, Paul of Aegina is referred to as "the obstetrician"

in the encyclopaedic works by the Byzantine authors Aetius of Amida (6th c., *Medical Books* (*Libri medicinales*), 16.23) and particularly Paul of Aegina (7th c., *Epitome of Medicine in Seven Books* (*Epitomae medicae libri septem*) 3.66, 72, 76; 4.74). Paul's concise adaptation was a major source for Islamic medicine (Abu'l-Qasim, known in the West as Abulcasis, ca. 1000, *Chirurgia* 75–77; Avicenna, *Canon* 3, 21, 2, 12–24), which in turn was used by the Latin physicians of the High and Late Middle Ages." I thank Ricarda Gäbel for these references. On the medieval reception, see Baader 1990; Hanson and Green 1994, esp. 1042–1061; Green 2000. Cf. also Caballero Navas 2021 and 2023 (in this volume) on the Hebrew reception of Soranus and Graeco-Roman gynaecological knowledge.

⁴¹⁰ See Dean-Jones 1996, 24; Flemming 2000, 253–357.

⁴¹¹ See Nickel 1971, 60–64.

⁴¹² See de Lacy 1992, 47–51.

⁴¹³ See Nickel 2001, 46–49.

⁴¹⁴ See Nickel 2001, 42. Cf. in greater detail Walzer 1935.

⁴¹⁵ In a scholion to a passage in Oribasius' *Libri incerti*, Philumenos is clearly said to have written a work entitled Γυναικεία. See apparatus to Oribasius, *Libri inc.* 13.1 (100,16 Raeder). See also Flemming 2000, 115; Schubert/Huttner 1999, 434.

⁴¹⁶ See e.g., Aetius Amid., *Libri med.* 16.23, 16.79, 16.103, 16.105, 16.106.

⁴¹⁷ See e.g., Oribasius, *Medical Collections* (*Libri incerti*), 20 (109, 25 Raeder), 21 (112, 13 Raeder), 18 (106, 30 Raeder). On Oribasius' approach to women, see Lopez Salva 2010; Musgrove 2017b. For more on Rufus' treatises, see Flemming 2000, 221–224, Sideras 2016; Thomssen and Probst 2016; and Ullmann 2016. On Athenaeus, see Coughlin 2018, 119–142.

⁴¹⁸ The sixteenth book of the *Medical Books* (*Libri medicinales*) is devoted to gynaecology. See the edition by Zervos 1901.

in Arabic sources on gynaecological issues – the Syriac translation are no longer extant – which seems to credit him with being a kind of expert on questions of midwifery.⁴¹⁹ Several chapters of the sixth book of his compilation (the *Pragmateia*) deal with topics such as clitoridectomy, abscesses of the womb or the extraction of the fetus, while parts of his third book are devoted to several ailments of the womb, retention of the menses, hysteric suffocation or painful delivery.⁴²⁰

It goes without saying that the references to female conditions, physiology and pathology in ancient texts are not limited to the authors and treatises mentioned in this short overview. Several other texts occasionally refer to female conditions or distinguish between the diagnosis/prognosis for male and female patients.⁴²¹ Additionally, we must always be aware of the great amount of texts which we do not have at hand and which might have contained further gynaecological material.

Both Jewish rabbinic as well as early Christian texts were contemporaneous to some of the later Graeco-Roman gynaecological traditions. Thus, it comes not as a surprise that their authors appropriated several medical ideas about women's bodies but also took them into new directions or developed new ones. Rabbinic and early Christian authors included these discussions of medical and scientific information into texts that were mostly dealing with religious norms, everyday practices or even theological concepts. Consequently, one will not find the discourse on female bodies and gynecology in any specific corpus of texts. Only rarely, Christian authors devoted a complete work to the discussion of the matters at hand. But the different parts of early Christian literature (e. g., New Testament, patristics, monastic and legal texts) touch open a variety of gynaecological issues. Among these topics, elaborated discourse on virginity, female sexuality, conception and pregnancy, embryology as well as breast milk occupied center stage.⁴²² In rabbinic texts, information on menstruation and im/purity or embryology and pregnancy form an important cluster in a pertaining tractate (*Niddah*, on the status of the menstruating woman) but sometimes surface in chapters concerned with blessings, liturgy or rules for the Sabbath and festivals. Issues such as virginity and sexual relations; childbirth and breast feeding or other information on female anatomy and physiology are more scattered throughout various tractates on marriage contracts (*Ketubbot*), writs of divorce (*Gittin*), Sabbath laws (*Shabbat*), the Day of Atonement (*Yoma*) and many more. Within these tractates or chapters, they often form shorter but structured subunits of bodily and medical dis-

⁴¹⁹ See Pormann 2008, 629.

⁴²⁰ See especially Paulus, 3.60–76 (p. 274.19–296.17 Heiberg). I thank Ricarda Gäbel for this apt survey of the Greek and Latin corpus of relevant texts (pp. 77–80), which I have supplemented with some remarks to the scholarly discussion and more references to secondary literature.

⁴²¹ See e. g., Heefel 2006; Couto-Ferreira 2018c, 124–125 (for Mesopotamia); I thank Ulrike Steinert for these references. Cf. also Totelin 2009 and 2011.

⁴²² See, in particular, Lillis 2016, 2017b, 2020, 2022, and 2023 (in this volume); Musgrove 2017; Groff 2019; LaValle 2015 and 2019; Penniman 2017; Myers 2017; Castelli 1986 and 1991; Chalmers 2014; Clark 1993; and the pertaining discussions above.

cussions as part of the overarching discourse. Interestingly, recipes in the Talmud sometimes include variations and different dosage for women (and children) and recipes specifically aimed at women's ailments are mostly included in more general clusters of pharmaceutical knowledge (as in b. Shabbat 108a–111a or b. Gittin 68b–70a).

During and after late antiquity, outside the corpus of religious texts but in close proximity to them, gynecological and embryological knowledge, often in Soranus's terms, was mostly transmitted via the medical compilations by Oribasius, Aetius and Paulus of Aegina, and others, mostly compilational works in Latin produced throughout the knowledge hub of North Africa between 400 and 600 CE.⁴²³ Medical and gynaecological, specifically embryological knowledge was also firmly integrated in the late antique theological and philosophical discourse.⁴²⁴ Galenic gynaecological texts resurface through the translation movement into Syriac and Arabic. In contrast to the Hebrew texts to be discussed in the following, the interest in these works was triggered not by their gynaecological content but rather their information on general anatomical and physiological features that were deemed important for theoretical arguments. This lesser degree of interest in gynaecological topics is also reflected in other texts, as Siam Bhayro argues in his contribution to this volume. Therapeutic advice and recipes for 'female ailments' are often merged with the use for other conditions and did not form a specific corpus or even separate cluster of gynaecological remedies.⁴²⁵ There's only one specific gynaecological chapter in Job of Edessa's *Book of Treasures*, while a newly discovered ninth-century handbook in Syriac, possibly based on Paul of Aegina's *Pragmateia*, that actually contained more discussions of the female body, sexuality and ailments.⁴²⁶

Among later Jewish traditions, the *Sefer Asaph ha-Rofe* (*Book of Asaph the Physician*), possibly from the 7th century, was the first text dealing exclusively with medicine, but without any specific focus on gynecology. From the medieval period onward, however, one may notice the slow emergence of a specific corpus of

⁴²³ One major line of transmission of Soranus's work was through the Latin texts composed by Theodorus Priscianus (as part of his *Euporista*), Caelius Aurelianus and Muscio (*Genecia*). See Hanson and Green 1994, esp. 1042–1061; Green 2000 and 2008; Maire 2004b; Cilliers 2019, esp. 157–180; and n. 409 above. A late manuscript blending Caelius's and Muscio's gynaecological works is edited and translated in Drabkin and Drabkin 1951. See also Urso 2018 and 2020 on the transmission from Soranus to Muscio and Caelius and the peculiar text of the *liber geneciae ad soteris obsetrix*. On other authors, see, for instance, Praet 2021a and 2021b on gynaecological interest in the work of John of Lydia and Vindicianus. The latter's work, however, the so-called "Gynaecia" contains – despite its title – pertaining information on women's bodies and physiology in only one fifth of its chapters. See Cilliers 2004 and 2005.

⁴²⁴ Cf. Jerome on virginity. For Tertullian on the unborn child, see Barr 2017. See also LaValle 2015 and 2019; Secord 2017; Pouderon 2005; Chalmers 2014; Congourdeau 2000. For the philosophical discourse, see Wilberding 2014 and 2016b; Connell 2021c; and Marx-Wolf 2018.

⁴²⁵ See the discussion by Bhayro 2023 (in this volume), 175–192.

⁴²⁶ See Kessler 2017.

Hebrew gynaecological texts, in many instances heavily based on the common tradition of Soranus and Muscio.⁴²⁷ Carmen Caballero Navas's contribution in the present volume and her previous research point out that the development of specifically Jewish gynaecological literature in Hebrew took some astonishing turns and was well embedded within the cultural framework of the translation movement from Arabic, Greek and Latin into Hebrew and other vernaculars of the medieval West.⁴²⁸ These texts display both a theoretical and a practical interest and firmly comply with the pattern of establishing male discursive authority over objectified female bodies. Authors, using pseudonyms like *Do'eg the Edomite*, aimed at a thorough Judaization of the content by deploying biblical figures as transmitters, late antique Talmudic teachings and other cultural or religious references, while they took over discursive features of their respective medical base texts. But in the opposite direction, this transfer of knowledge, frequently combining philosophical, ethical and scientific views, also impacted their legal (halakhic) views and theological or philosophical thinking.⁴²⁹

This survey has demonstrated that, within and across various cultures in antiquity and well into the medieval period, a wealth of ideas, concepts, and practices related to women's bodies was developed, transmitted, transformed and nuanced. In many areas, the discussion indicated various similarities, often structural or conceptual, related to the creation of male and female, to definitions of puberty, to ideas about conception and gestation, to various practices related to childbirth and the care for the newborn, to therapeutic and apotropaic approaches to female ailments, and to difficulties during pregnancy and childbirth. For sure, each tradition displays manifold signs of cultural specificities or adaptation and appropriation. So, one must notice and carefully examine the many differences based on cultural particularities, often connected to specific myths or religious imagination. These come to the fore in areas that were heavily laden with social and cultural perspectives. Accordingly, various issues in female physiology overlapped with the realm of (ritual) im/purity (e. g., menstruation, childbirth) in and across ancient cultures but with very specific nuances. Despite general resemblance, also the various concepts of conception, gestation and ensoulment of the unborn *in utero* as well as the imagery related to the female body, its anatomy and physiology, often understood as representing also some sort of female "nature", built on religious

⁴²⁷ For an early study and survey, see Barkai 1998.

⁴²⁸ See Barkai 1988; Caballero Navas 2021 for a survey and discussion of pertinent texts in (Judeo-)Arabic, and Hebrew.

⁴²⁹ See Caballero Navas 2004; 2006; 2021 and 2023 (in this volume). For a critical edition and French translation of Doeg's *Sefer ha-Toldedet* (*Book of Generation*), see Barkai 1991. For female Jewish practitioners in medieval time, see Caballero Navas 2008a, 2008b, and 2014; Baumgarten 2019; and Cohen-Hanegbi 2020. On Early Modern Jewish writers of gynaecological works, see Pinheiro 2017; Foscati 2021; King 2021.

myth, philosophical models, or theological thought. Other concepts and practices were also shaped by social and political realities (e. g., wet nursing; childbirth; virginity; gender division) that impacted on the multiple roles of women as discursive objects and knowing subjects, recipients of cures but also experts and agents of self-help and peer medicine. This survey has traced some of the main features and developments in various cultural and religious tradition in the premodern period, while also highlighting discursive developments in pertaining academic fields pointing to debated issues and the changes of scholarly approaches. The following contributions in this volume will address some of the mentioned topics while also adopting new perspectives on the complex continuum of often male-made gynaecological textual traditions with the historically formative entanglements of female bodies and female practitioners.

Female bodies, Gynaecology, and Women's Medical Knowledge and Practice in Ancient Cultures

a Select Bibliography

LENNART LEHMHAUS

The following bibliography serves a twofold purpose. On the one hand, it functions as an extended reference list for the works cited in the footnotes of the preceding introductory essay (Lehmhaus 2022). On the other hand, in tandem with precisely this introduction it will provide access for those who are interested in the premodern mindscape regarding women's bodies, female (medical) expertise and its cultural framing together with pertinent academic discourse from various ideological, theoretical and methodological angles. While not intended to be exhaustive, it constitutes the first bibliography with a trans-cultural and interdisciplinary approach to premodern gynaecology writ large. As such, it includes, besides many contributions, major relevant monographs and thematic edited volumes where the interested reader can find multiple sources for further reading.¹

Of course, also each of the various contributions to this volume points to an abundance of more detailed references pertaining to their actual focus. Of special interest might be the detailed contributions offering a survey of gynaecological and related topics in different traditions.² Due to the main focus of most contributions in this volume, the bibliography comprises mainly scholarly literature on ancient and late antique traditions with some references to later developments in the medieval and early Modern period.³ As a work in progress, this preliminary bibliography will most hopefully be supplemented in the near future by a search-

¹ For exhaustive bibliographies on women (and children) in Graeco-Roman ancient cultures that feature earlier research and multiple studies in French, German, Greek, Italian, Portuguese, and Spanish, see Panidis 2021a, 2021b and 2022. Somewhat shorter but thematically more focused bibliographies on virginity, womanhood, sexuality and more in antiquity can be found at: <https://diotima-doctafemina.org/bibliographies/>.

² See, thus, Pommerening 2023 (in this volume); Steinert 2023 (in this volume); Caballero Navas 2023 (in this volume). For an extended bibliography on premodern Jewish medicine including gynaecological issues, see Lehmhaus 2021.

³ For scholarship in the area of women's bodies and gynaecology in the medieval period, see the bibliography by Monica Green (Green 2010) as well as the references in Green 2000 and 2008.

able bibliographic online-database with thematic subsections as part of ongoing research projects.

- Abou Aly, Amal. 1996. "The wet nurse: A study in ancient medicine and Greek papyri." *Vesalius* 11,2: 86–97.
- Abusch, Tzvi, Daniel Schwemer, Mikko Luukko, and Greta Van Buylaere. 2020. *Corpus of Mesopotamian Anti-Witchcraft Literature. Volume 3*. Leiden: Brill.
- Ackerman, Susan. 2014. "Women's rites of passage in ancient Israel: three case studies (birth, coming of age, and death)." In *Family and Household Religion; Toward a Synthesis of Old Testament Studies, Archaeology, Epigraphy, and Cultural Studies*. Edited by Rainer Albertz, Beth Alpert Nakhai, Saul M. Olyan, and Rüdiger Schmitt. Winona Lake, IN: Eisenbrauns. Pages 1–32.
- Adair, Mark J. 1995. "Plato's View of the 'Wandering Uterus.'" *The Classical Journal* 91,2: 153–163.
- Adler, Yonatan. 2017. "On the Origins of Tevilah (Ritual Immersion)." *TheTorah.com*. Cited 18 April 2021. Online: <https://thetorah.com/article/on-the-origins-of-tevilah-ritual-immersion>
- Ajootian, Aileen. 1997. "The Only Happy Couple: Hermaphrodites and Gender." In *Naked Truths: Women, Sexuality and Gender in Classical Art and Archaeology*. Edited by Ann Olga Koloski-Ostrow and Claire L. Lyons. London: Routledge. Pages 220–242.
- Alberici, Lisa A., and Mary Harlow. 2007. "Age and Innocence: Female Transitions to Adulthood in Late Antiquity." In *Constructions of Childhood in Ancient Greece and Italy*. Edited by Ada Cohen and Jeremy B. Rutter. Princeton: American School of Classical Studies at Athens. Pages 193–203.
- Amit, Aaron. 2017. "Methodological Pitfalls in the Identification of the כּוּס עֵיקָרִין." In *Collecting Recipes: Byzantine and Jewish Pharmacology in Dialogue*. Edited by Lennart Lehmhaus and Matteo Martelli. Berlin: De Gruyter. Pages 255–271.
- Amsler, Monika. 2023. "Goats or Babies?! A Critical Evaluation of the Teachings by Abaye's Mother (bShab 134a) and the Relationship between Veterinary and Human Medicine in the Talmud." (In this volume).
- Androutsos G. et al. 2001 "Les premières opérations de changement de sexe dans l'antiquité." *Andrologie* 2: 89–93.
- Aranoff, Deena. 2017. "The Biblical Root 'mn: Retrieval of a Term and Its Household Context." In *Mothers in the Jewish Cultural Imagination*. Edited by Edited by Jane L. Kanarek, Marjorie Lehman, and Simon J Bronner. Liverpool: The Littman Library of Jewish Civilization in association with Liverpool University Press. Pages 327–342.
- Asher-Greve, Julia M. 1997. "The Essential Body: Mesopotamian Conceptions of the Gendered Body." *Gender and History* 9,3: 432–461.
- Asher-Greve, Julia M. 2002. "Decisive Sex, Essential Gender." *Sex and Gender in the Ancient Near East. Proceedings of the 47th Rencontre Assyriologique Internationale*. Edited by Simo M. Parpola and Robert M. Whiting. Helsinki: The Neo-Assyrian Text Corpus Project. Pages 11–26.
- Asher-Greve, Julia M., and Joan Goodnick Westenholz. 2013. *Goddesses in Context: On Divine Powers, Roles, Relationships and Gender in Mesopotamian Textual and Visual Sources*. Fribourg: Academic Press.

- Assante, Julia. 2009. "Bad Girls and Kinky Boys? The Modern Prostituting of Ishtar, Her Clergy and Her Cults." In *Tempelprostitution im Altertum: Fakten und Fiktionen*. Edited by Tanja S. Scheer. Berlin: Verlag Antike. Pages 23–54.
- Aubert, Jean-Jacques. 1989. "Threatened Wombs: Aspects of Ancient Uterine Magic." *Greek, Roman and Byzantine Studies* 30: 421–449.
- Audouit, Clémentine. 2022. "Noms et perceptions de l'utérus dans la pensée de l'Égypte ancienne." In *Utérus. De l'organe aux discours*, Edited by Morgan Guyvarc'h and Véronique Mehl. Rennes: Presses Universitaires de Rennes. Pages 27–42.
- Baader, Gerhard. 1990. "Der Hebammenkatechismus des Muscio – ein Zeugnis frühmittelalterlicher Geburtshilfe." In *Frauen in Spätantike und Frühmittelalter: Lebensbedingungen – Lebensnormen – Lebensformen. Beiträge einer internationalen Tagung an der Freien Universität Berlin*. Edited by Werner Affeldt. Sigmaringen: Thorbecke. Pages 115–125.
- Baden, Joel. 2017. "God Opened Her Womb – The Biblical Conception of Fertility." *The-Torah.com*. Online: <https://thetorah.com/article/god-opened-her-womb-the-biblical-conception-of-fertility>
- Baker, Cynthia. 2002. *Re-building the House of Israel. Architectures of Gender in Jewish Antiquity*. Stanford: Stanford University Press.
- Balberg, Mira. 2014. *Purity, Body, and Self in Early Rabbinic Literature*. Berkeley and Los Angeles: University of California Press.
- Bar-Ilan, Meir. 2009. "A woman gives a seed: biology and physiology among the Jews in antiquity." *Mo'ed* 19: 12–34. (Hebrew)
- Barkai, Ron. 1988. "A medieval Hebrew treatise on obstetrics." *Medical History* 33: 96–119.
- Barkai, Ron. 1998. *A History of Jewish Gynaecological Texts in the Middle Ages*. Leiden: Brill.
- Barker, Sheila and Sharon Strocchia. 2020. "Household Medicine for a Renaissance Court." In *Gender, Health, and Healing, 1250–1550*. Edited by Sara Ritchey und Sharon Strocchia. Amsterdam: Amsterdam University Press. Pages 139–166.
- Barr, Julian. 2017. *Tertullian and the Unborn Child. Christian and Pagan Attitudes in Historical Perspective*. London: Routledge.
- Barroso, Maria d. S. 2013. "Post-mortem cesarean section and embryotomy: Myth, medicine, and gender in Greco-Roman culture." *Acta Medico-Historica Adriatica* 11,1: 75–88.
- Bartoš, Hynek. 2021. "Aristotle's Biology and Early Medicine." In *The Cambridge Companion to Aristotle's Biology*. Edited by Sophia M. Connell. Cambridge: Cambridge University Press. Pages 46–63.
- Battini, Laura. 2006. "Les images de la naissance en Mésopotamie." *Médecine et médecins au Proche-Orient ancien*. Actes du colloque international organisé à Lyon, 8–9 novembre 2002. Edited by Laura Battini and Pierre Villard. Oxford: Archaeopress. Pages 1–37.
- Bauks, Michaela. 2021. "Pain in Childbirth – Gen 3:16 in Inner-Biblical Exegesis." In *Pain and its Representation in Biblical Texts, Post-Biblical Texts and Other Texts of the Ancient Eastern Mediterranean*. Edited by Saul Olyan and Michael Bauks. (FAT II), Tübingen: Mohr Siebeck. Pages 29–49.
- Baumgarten, Elisheva. 2019. "Ask the Midwives: A Hebrew Manual on Midwifery from Medieval Germany." *Social History of Medicine* 32,4: 712–733.
- Baumgarten, Joseph M. 1994. "Purification after Childbirth and the Sacred Garden in 4Q265 and Jubilees." In *New Qumran Texts and Studies. Proceedings of the First Meeting of the International Organization for Qumran Studies, Paris 1992*. Edited by George J. Brooke and Florentino García Martínez. Leiden: Brill. Pages 3–10.
- Beard, Mary. 1980. "The sexual status of Vestal Virgins." *Journal of Roman Studies* 70: 12–27.
- Beckman, Gary M. 1983. *Hittite Birth Rituals*. Wiesbaden: Harrassowitz.

- Behrens, Hermann. 1978. *Enlil und Ninlil: Ein sumerischer Mythos aus Nippur*. Rome: Biblical Institute Press.
- Bergmann, Claudia D. 2008. *Childbirth as a Metaphor for Crisis. Evidence from the Ancient Near East, the Hebrew Bible, and 1QH XI, 1–18*. Berlin: De Gruyter.
- Bergmann, Claudia D. 2019. "Turning Birth into Theology: Traces of Ancient Obstetric Knowledge within Narratives of Difficult Childbirth in the Hebrew Bible." In *Children in the Bible and the Ancient World. Comparative and Historical Methods in Reading Ancient Children*. Edited by Shawn W. Flynn. London: Routledge. Pages 17–34.
- Bergmann, Claudia D. 2020. "Mothers of a Nation: How Motherhood and Religion Intermingle in the Hebrew Bible." *Open Theology* 6,1: 132–144.
- Berlejung, Angelika, Jan Dietrich and Joachim F. Quack, eds. 2012. *Menschenbilder und Körperkonzepte im Alten Israel, in Ägypten und im Alten Orient*. Tübingen: Mohr Siebeck.
- Berlin, Adele. "Sex and the Single Girl in Deuteronomy 22." In *Mishneh Todah: Studies in Deuteronomy and Its Cultural Environment in Honor of Jeffrey H. Tigay*. Edited by Nili S. Fox, David A. Glatt-Gilad, and Michael J. Williams. Winona Lake: Eisenbrauns. Pages 131–148.
- Bernier, Réjane. 1992. "Étude comparative de l'embryologie hippocratique et de l'embryologie indienne antique." In *Tratados Hipocráticos (estudios acerca de su contenido, forma e influencia)*. Edited by Juan. A. López Férez. Madrid: Universidad Nacional de Educación a Distancia. Pages 37–53.
- Berquist, Jon L. 1998. "Controlling Daughters' Bodies in Sirach." *Parchments of Gender: Deciphering the Bodies of Antiquity*. Edited by Maria Wyke. Oxford: Oxford University Press. Pages 95–120.
- Berquist, Jon L. 2002. *Controlling Corporeality: The Body and the Household in Ancient Israel*. New Brunswick, NJ: Rutgers University Press.
- Bertrand, Dominique 2005. "Origine de l'âme et animation du corps humaine." In *Les Pères de l'Église face à la science médicale de leurs temps*. Edited by Véronique Boudon-Millot and Bernard Pouderon. Paris: Beauchesne. Pages 299–320.
- Betancourt, Roland. 2020. *Byzantine Intersectionality: Sexuality, Gender, and Race in the Middle Ages*. Princeton: Princeton University Press.
- Bickart, Noah B. 2016. "Overturning the 'Table': The Hidden Meaning of a Talmudic Metaphor for Coitus." *Journal of the History of Sexuality* 25,3:489–507.
- Bien, Christian G. 1997. *Erklärungen zur Entstehung von Mißbildungen im physiologischen und medizinischen Schrifttum der Antike*. Stuttgart: Franz Steiner.
- Biggs, Robert D. 2000. "Conception, Contraception, and Abortion in Ancient Mesopotamia." *Wisdom, Gods and Literature. Studies in Assyriology in Honour of W. G. Lambert*. Edited by Andrew R. George and Irving L. Finkel. Winona Lake: Eisenbrauns. Pages 1–13.
- Bhayro, Siam. 2023. "Gynaecology in Syriac Sources: Theory and Practice." In this volume.
- Blayney, Jan. 1992. "Theories of Conception in the Ancient Roman World." In *The Family in Ancient Rome: new perspectives*. Edited by Beryl Rawson. London: Routledge. Pages 230–236.
- Bliquez, Lawrence. J. 1005. "Gynecology in Pompeii." In *Ancient medicine in its socio-cultural context*. Edited by Philip J. van der Eijk, Hans F. J. Horstmannshoff, and P. H. Schrijvers. Leiden: Brill. Pages 209–223.
- Blumenfeld-Kosinski, Renate. 1991. *Not of Woman Born: Representations of Caesarean Birth in Medieval and Renaissance Culture*. Ithaca: Cornell University Press.

- Blundell, Sue. 1998. "Marriage and the maiden: narratives on the Parthenon." In *The Sacred and the Feminine in Ancient Greece*. Edited by Sue Blundell and Margaret Williamson. London: Routledge. Pages 47–70.
- Bodiou, Lydie. 2022. "Un récipient, un four ou un animal? Penser l'utérus dans la Grèce antique." In *Utérus. De l'organe aux discours*, Edited by Morgan Guyvarc'h and Véronique Mehl. Rennes: Presses Universitaires de Rennes. Pages 55–68.
- Böck, Barbara. 2013. "Medicinal plants and medicaments used for conception, abortion, and fertility control in ancient Babylonia." *Journal Asiatique* 301: 27–52.
- Böck, Barbara. 2014. *The Healing-Goddess Gula. Towards an Understanding of Ancient Babylonian Medicine*. Leiden: Brill.
- Bonfante, Larissa. 1997. "Nursing Mothers in Classical Art." In *Naked Truths: Women, Sexuality and Gender in Classical Art and Archaeology*. Edited by Ann Olga Koloski-Ostrow and Claire L. Lyons. London: Routledge. Pages 205–232.
- Bonnet-Cadilhac, Christine. 1995. "Les représentations du fœtus in utero." *Medicina nei Secoli* 7: 339–350.
- Booth, Charlotte. 2015. *In Bed with the Ancient Egyptians*. Stroud: Amberley.
- Bourbon, Florence. 2016. "La stérilité dans la Collection Hippocratique: une maladie?." *Revue des études grecques* 129,2: 305–327.
- Bourbon, Florence. 2017. "Predicting and choosing baby's gender in the Hippocratic Corpus." *Medicina Nei Secoli* 29,1: 51–70.
- Boustan, Ra'anan S. 2002. "Eunuchs and Gender Transformation: Philo's Exegesis of the Joseph Narrative." In *Eunuchs in Antiquity and Beyond*. Edited by Shaun Tougher. London: Duckworth. Pages 103–121.
- Boylan, Michael. 1984. "The Galenic and Hippocratic challenges to Aristotle's conception theory." *Journal of the History of Biology* 17,1: 83–112.
- Boylan, Michael. 1986. "Galen's conception theory." *Journal of the History of Biology* 19,1: 47–77.
- Bradley, Keith R. 1980. "Sexual Regulations in Wet-Nursing Contracts from Roman Egypt." *Klio* 62: 321–325.
- Bradley, Keith R. 1986. "Wet-nursing at Rome: A Study in Social Relations." In *The Family in Ancient Rome: New Perspectives*. Edited by Beryl Rawson. Ithaca: Cornell University Press. Pages 201–229.
- Bregman, Marc. 2017. "Mordecai breastfed Esther: male lactation in Midrash, medicine, and myth." In *The Faces of Torah. Studies in the Texts and Contexts of Ancient Judaism in Honor of Steven Fraade*. Edited by Christine Hayes, Tzvi Novick, and Michal Bar-Asher Siegal. Göttingen: Vandenhoeck & Ruprecht. Pages 257–274.
- Brettler, Marc Zvi. 2014. "Gender in the Bible." In *The Jewish Study Bible*. Second Edition. Edited by Adele Berlin and Marc Zvi Brettler. New York: Oxford University Press. Pages 2177–2184.
- Brisson, Luc. 2002. *Sexual Ambivalence: Androgyny and Hermaphroditism in Graeco-Roman Antiquity*. Translated from the French by Janet Lloyd. Berkeley: University of California Press.
- Brisson, Luc, and Marie-Hélène Congourdeau, eds. 2008. *L'embryon: formation et animation. Antiquité grecque et latine, traditions hébraïque, chrétienne et islamique*. Paris: Vrin.
- Brisson, Luc et al., eds. 2012. *Porphyre. Sur la manière dont l'embryon reçoit l'âme*. Paris: Vrin.
- Brooten, Bernadette J. 1996. *Love Between Women: Early Christian Responses to Female Homoeroticism*. Chicago: Chicago University Press.

- Brown, Shelby. 1997. "‘Ways of Seeing’ Women in Antiquity: An Introduction to Feminism in Classical Archaeology and Ancient Art History." In *Naked Truths: Women, Sexuality and Gender in Classical Art and Archaeology*. Edited by Ann Olga Koloski-Ostrow and Claire L. Lyons. London: Routledge. Pages 12–42.
- Budin, Stephanie L. 2011. *Images of Woman and Child from the Bronze Age: Reconsidering Fertility, Maternity, and Gender in the Ancient World*. Cambridge: Cambridge University Press.
- Budin, Stephanie L. 2013. *Intimate Lives of the Ancient Greeks*. Denver: Praeger.
- Budin, Stephanie L. 2015. "Fertility and Gender in the Ancient Near East." In *Sex in Antiquity: Exploring Gender and Sexuality in the Ancient World*. Edited by Mark Master-son, Nancy Sorkin Rabinowitz, and James Robson. London: Routledge. Pages 30–49.
- Budin, Stephanie L., and Jean Macintosh Turfa, eds. 2016. *Women in Antiquity. Real Women across the Ancient World*. London: Routledge.
- Budin, Stephanie L., Megan Cifarelli, Agnès Garcia-Ventura, and Adelina Millet Albà, eds. 2018. *Gender and methodology in the ancient Near East: Approaches from Assyriology and beyond*. Barcelona: Edicions Universitat Barcelona.
- Buell, Denise K. 1999. *Making Christians: Clement of Alexandria and the Rhetoric of Legitimacy*. Princeton: Princeton University Press.
- Busses, Stamatis. 2016. "Breastfeeding contracts in Graeco-Roman Egypt. Quantity and quality control of human milk." In *Latte e latticini aspetti della produzione e del consumo nelle società mediterranee dell'Antichità e del Medioevo*. Edited by Ilias Anagnostakis and Antonella Pelletieri. Lagonegro: Zaccara. Pages 73–92.
- Caballero Navas, Carmen. 2004. "The Book of Women's Love" and Jewish Medieval Medical Literature on Women: *Sefer Ahavat Nashim*. London: Kegan Paul.
- Caballero Navas, Carmen. 2006. "Secrets of Women: Naming Female Sexual Difference in Medieval Hebrew Medical Literature." *Nashim: A Journal of Jewish Women's Studies and Gender Issues* 12: 39–56.
- Caballero Navas, Carmen. 2008a. "Medicine and Pharmacy for Women. The Encounter of Jewish Thinking and Practices with the Arabic and Christian Medical Traditions." *European Review* 16: 249–259.
- Caballero Navas, Carmen. 2008b. "The Care of Women's Health: An Experience Shared by Medieval Jewish and Christian Women." *Journal of Medieval History* 34,2: 146–163.
- Caballero Navas, Carmen. 2009. "Maimonides' Contribution to Women's Healthcare and His Influence On The Hebrew Gynaecological Corpus." In *Traditions of Maimonideanism*. Edited by Carlos Fraenkel. Leiden: Brill. Pages 33–50.
- Caballero Navas, Carmen. 2014. "She will give birth immediately. Pregnancy and childbirth in medieval Hebrew medical texts produced in the Mediterranean West." *Dynamis* 32,4: 377–401.
- Caballero Navas, Carmen. 2021. "The Genesis of Medieval Hebrew Gynaecology: A Preliminary Assessment." In *Defining Jewish Medicine. Transfer of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 349–373.
- Caballero Navas, Carmen. 2023. "Greco-Latin Gynecology in Jewish Robes. The Hebrew Translation of Muscio's *Gynaecia*." (In this volume)
- Cabré, Montserrat, and Fernando Salmón. 2020. "Blood, Milk, and Breastbleeding. The Humoral Economy of Women's Bodies in Medieval Medicine." In *Gender, Health, and Healing, 1250–1550*. Edited by Sara Ritchey and Sharon Strocchia. Amsterdam: Amsterdam University Press. Pages 93–118.

- Calà, Irene. 2020. "Some cosmetic recipes in medical texts of Late Antiquity: Treatments for the face in the Libri medicinales of Aetius Amidenus." *Meridies. Estudios de Historia y Patrimonio de la Edad Media* XI: 2–14.
- Calà, Irene. 2023. "A Short Remark on the Sixteenth Book of Aetius Amidenus's *Libri medicinales*: The Case of the Clitoridectomy." (In this volume).
- Caldwell, Lauren E. 2015. *Roman Girlhood and the Fashioning of Femininity*. Cambridge: Cambridge University Press.
- Cameron, Averil and A. Kuhrt, eds. 1983. *Images of Women in Antiquity*. London: Routledge.
- Campanile, Domitilla, Filippo Carlà-Uhink, and Margherita Facella, eds. 2017. *Trans-Antiquity: Cross-Dressing and Transgender Dynamics in the Ancient World*. London: Routledge.
- Campese, Silvia. 1983. "Madre-materia. Donna, casa, città nell'antropologia di Aristotele." In *Madre materia. Sociologia e biologia della donna greca*. Edited by Silvia Campese, Paola Manuli, and Giulia Sissa. Turin: Boringhieri. Pages 15–79.
- Cantarella, Eva. 1987. *Pandora's Daughters: The Role and Status of Women in Greek and Roman Antiquity*. Baltimore: Johns Hopkins University Press.
- Carroll, Maureen. 2019. "Mater Mutata, 'Fertility cults' and the integration of women in religious life in Italy in the fourth to first centuries BC." *Papers of the British School at Rome*. 87: 1–45.
- Castelli, Elizabeth. 1986. "Virginity and Its Meaning for Women's Sexuality in Early Christianity." *Journal of Feminist Studies in Religion* 2,1: 61–88.
- Castelli, Elizabeth. 1991. "'I Will Make Mary Male': Pieties of the Body and Gender Transformation of Christian Women in Late Antiquity." In *Body Guards: The Cultural Politics of Gender Ambiguity*. Edited by Julia Epstein and Kristina Staub. London: Routledge. Pages 29–49.
- Centlivres Challet, Claude-Emanuelle. 2017a. "Feeding the Roman nursling: maternal milk, its substitutes, and their limitations." *Latomus* 17: 895–909.
- Centlivres Challet, Claude-Emanuelle. 2017b. "Roman breastfeeding: control and affect." *Arethusa* 50,3: 369–384.
- Centlivres Challet, Claude-Emanuelle, ed. 2022. *Married life in Greco-Roman Antiquity*. London: Routledge.
- Chalmers, Matthew H. 2014. "Seeking as Suckling: The Milk of the Father in Clement of Alexandria's Paedagogus I,6." *Studia Patristica* 72: 59–73.
- Chapman, Cynthia R. 2012. "'Oh that you were like a brother to me, one who had nursed at my mother's breasts.' Breast Milk as a Kinship-Forging Substance." *Journal of Hebrew Scriptures* 12,7: 1–41.
- Cherian, Jacob. 2006. "The Moses at Qumran: The מורה צדק as the Nursing-Father of the יחד." In *The Bible and the Dead Sea Scrolls, vol. 2, The Dead Sea Scrolls and the Qumran Community*. Edited by James H. Charlesworth. Waco, TX: Baylor University Press. Pages 351–361.
- Cilliers, Louise. 2004. "Vindicianus Gynaecia and theories on generation and embryology from the Babylonians up to Graeco-Roman Times." In *Magic, and rationality in ancient Near Eastern and Roman medicine*. Edited by H. F. J. Horstmanshoff and Marten Stol. Leiden: Brill. Pages 343–368.
- Cilliers, Louise. 2005. "Vindicianus's Gynaecia: text and translation of the Codex Monacensis." *The Journal of Medieval Latin* 15: 153–236.

- Cilliers, Louise, and François P. Retief. 2006. "The healing hand: the role of women in Graeco-Roman medicine." *Acta Theologica* 26,2: 165–188.
- Claassens, L. Juliana M. 2006. "Rupturing God language: The Metaphor of God as Midwife in Psalm 22." In *Engaging the Bible in a Gendered World: An Introduction to Feminist Biblical Interpretation in Honor of Katherine Doob Sakenfeld*. Edited by Linda Day and Carolyn Pressler. Louisville and London: Westminster. Pages 166–175.
- Clark, Gillian. 1993. *Women in Late Antiquity: Pagan and Christian Life-styles*. Oxford: Clarendon Press; New York: Oxford University Press.
- Clarke, John R. 2001. *Looking at Lovemaking: Constructions of Sexuality in Roman Art, 100 B. C. – A. D. 250*. Berkeley: University of California Press.
- Cohen, Shaye J. D. 1991. "Menstruants and the Sacred in Judaism and Christianity." In *Women's History and Ancient History*. Edited by S. B. Pomeroy. Chapel Hill: University of North Carolina Press. Pages 273–299.
- Cohen, Ada, and Jeremy B. Rutter, eds. 2007. *Constructions of childhood in ancient Greece and Italy*. Princeton: American School of Classical Studies at Athens.
- Cohen-Hanegbi, Naama. 2020. "Afterword. Healing Women and Women Healers." In *Gender, Health, and Healing, 1250–1550*. Edited by Sara Ritchey and Sharon Strocchia. Amsterdam: Amsterdam University Press. Pages 315–325.
- Cohn, Naftali. 2011. "When Women Confer with Rabbis: On Male Authority and Female Agency in the Mishnah." *The Journal of the Society for Textual Reasoning* 6,2. Online: <https://jtr.shanti.virginia.edu/volume-6-number-2/when-women-confer-with-rabbis-on-male-authority-and-female-agency-in-the-mishnah-naftali-s-cohn-concordia-university/>
- Congourdeau, Marie-Hélène. 1994. "Métrodôra et son oeuvre." In *Maladie et société à Byzance*. Edited by Evelyne Patlagean. Spoleto: Centro di studi sull alto Medioevo de Spoleto. Pages 57–96.
- Congourdeau, Marie-Hélène et al., eds. 2000. *L'enfant à naître. Tertullien, Grégoire, Augustin, Maxime, Cassiodore, Pseudo-Augustin*. Paris: Migne.
- Congourdeau, Marie-Hélène. 2007. *L'embryon et son âme dans les sources grecques (VI^e siècle av. J.-C. – VI^e siècle apr. J.-C.)*. Paris: Association des amis du Centre d'histoire et civilisation de Byzance.
- Congourdeau, Marie-Hélène. 2018. "Debating the Soul in Late Antiquity." In *Reproduction: antiquity to the present day*. Edited by Nick Hopwood, Rebecca Flemming, and Lauren Kassell. Cambridge: Cambridge University Press. Pages 109–121.
- Connell, Sophia M. 2000. "Aristotle and Galen on sex difference and reproduction: a new approach to an ancient rivalry." *Studies in the History and Philosophy of Science* 31,3: 405–427.
- Connell, Sophia M. 2016. *Aristotle on female animals: a study of the generation of animals*. Cambridge: Cambridge University Press.
- Connell, Sophia M. 2020. "The female contribution to generation and the nutritive soul in Aristotle's embryology." In *Nutrition and The Nutritive Soul in Aristotle and Aristotelianism*. Edited by Giouli Korobili and Roberto Lo Presti. Berlin: De Gruyter. Pages 63–84.
- Connell, Sophia M. 2021a. *Aristotle on women: physiology, psychology, and politics. Elements in Ancient Philosophy*. Cambridge: Cambridge University Press.
- Connell, Sophia M., ed. 2021b. *The Cambridge Companion to Aristotle's Biology*. Cambridge: Cambridge University Press.
- Connell, Sophia M. 2021c. "'Nous alone enters from outside': Aristotelian embryology and early Christian philosophy." *Journal of Ancient Philosophy* 15,2: 109–138.

- Constantinou, Stavroula. 2005. *Female Corporeal Performances: Reading The Body In Byzantine Passions And Lives Of Holy Women*. Uppsala: Uppsala University Press.
- Constantinou, Stavroula, and Aspasia Skouroumouni-Stavrinou. 2022. "Premodern 'Galaktology': reading milk in ancient and early Byzantine medical treatises." *Journal of Late Antique, Islamic and Byzantine Studies* 1,1-2: 1-40.
- Constantinou, Stavroula, and Aspasia Skouroumouni-Stavrinou., eds. Forthcoming. *Motherhood and breastfeeding in late antique and early Byzantine cultures*. London: Routledge.
- Cooney, Kathlyn M. 2008. "The problem of female rebirth in New Kingdom Egypt: the fragmentation of the female individual in her funerary equipment." In *Queering sex and gender in Sex and Gender in Ancient Egypt: 'Don Your Wig for a Joyful Hour'*. Edited by Carolyn Graves-Brown. Swansea: The Classical Press of Wales. Pages 1-26.
- Cooper, Jerold S. 2002. "Virginité in Ancient Mesopotamia." In *Sex and Gender in the Ancient Near East. Proceedings of the 47th Rencontre Assyriologique Internationale*. Edited by Simo M. Parpola and Robert M. Whiting. Helsinki: The Neo-Assyrian Text Corpus Project. Pages 91-112.
- Cooper, Kate. 1999. *The Virgin and the Bride: Idealized Womanhood in Late Antiquity*. Cambridge, MA: Harvard University Press.
- Cooper, Dana, and Claire Phelan, eds. 2017. *Motherhood in Antiquity*. New York: palgrave macmillan.
- Corrington, Gail P. 1989. "The Milk of Salvation: Redemption by the Mother in Late Antiquity and early Christianity." *Harvard Theological Review* 82,4: 393-420.
- Coughlin, Sean. 2018. "Athenaeus of Attalia on the Psychological Causes of Bodily Health." In *Mental Illness in Ancient Medicine: From Celsus to Paul of Aegina*. Edited by Chiara Thumiger and Peter N. Singer. Leiden: Brill. Pages 107-142.
- Couto-Ferreira, M. Érica. 2013. "The river, the oven, the garden: the female body and fertility in a Late Babylonian Ritual Text." In *Approaching Rituals in Ancient Cultures*. Edited by Claus Ambos and Lorenzo Verderame. Pisa: Fabrizio Serra Editore. Pages 97-116.
- Couto-Ferreira, M. Érica. 2014. "She will give birth easily: therapeutic approaches to childbirth in 1st millennium BCE cuneiform sources." *Dynamis* 32,4: 289-316.
- Couto-Ferreira, M. Érica. 2015/16. "In the Womb: Embryological Ideas in Mesopotamian Cuneiform Texts." *Korot* 23: 47-71.
- Couto-Ferreira, M. Érica. 2016. "Being mothers or acting (like) mothers? Constructing motherhood in ancient Mesopotamia." In *Women in Antiquity: Real Women Across the Ancient World*. Edited by Stephanie Budin and Jean M. Turfa. London: Routledge. Pages 25-34.
- Couto-Ferreira, M. Érica. 2017. "'Let me be your canal': Some Thoughts on Agricultural Landscape and Female Bodies in Sumero-Akkadian Sources". In *The First 90 Years. Studies in Honor of Miquel Civil on the Occasion of his 90th Birthday*. Edited by Lluís Feliu, Fumi Karahashi, and Gonzalo Rubio. Berlin: De Gruyter. pp. 54-69.
- Couto-Ferreira, M. Érica. 2018a. "Politics of the Body Productive: Agriculture, Royal Power and the Female Body in Sumerian Sources." In *Gender and Methodology in the Ancient Near East: Approaches from Assyriology and Beyond*. Edited by Stephanie L. Budin, Megan Cifarelli, Agnès García-Ventura, and Adelina Millet Albà. Barcelona: Universitat de Barcelona. Pages 3-9.
- Couto-Ferreira, M. Érica. 2018b. "Uterine Architectures: Womb and Space in Sumero-Akkadian Sources." In *Cultural Constructions of the Uterus in Pre-modern Societies, Past*

- and *Present*. Edited by M. Erica Couto-Ferreira and Lorenzo Verderame. Newcastle upon Tyne: Cambridge Scholars. Pages 34–54.
- Couto-Ferreira, M. Érica. 2018c. “When Women Get Ill: Gendered Construction of Health and Disease in Cuneiform Texts on Healing.” In *Studying Gender in the Ancient Near East*. Edited by Saana Svärd and Agnès Garcia-Ventura. University Park, PA: Eisenbrauns. Pages 109–131.
- Couto-Ferreira, M. Érica, and Agnès Garcia Ventura. 2013. “Engendering Purity and Impurity in Assyriological Studies: A Historiographical Overview.” *Gender and History* 25: 513–528.
- Couto-Ferreira, M. Érica, and Lorenzo Verderame, eds. 2018. *Cultural Constructions of the Uterus in Pre-modern Societies, Past and Present*. Newcastle upon Tyne: Cambridge Scholars.
- Craik, Elizabeth. 2015. *The “Hippocratic” Corpus. Content and Context*. London: Routledge.
- Craik, Elizabeth. 2020. “Malaria, childbirth and the cult of Artemis.” In *Ancient Medicine and the Markets: Essays in Honour of Vivian Nutton*. Edited by Rebecca Flemming and Laurence M. V. Totelin. Swansea, Classical Press of Wales. Pages 87–99.
- Crowhurst, Caroline J. 2017. “True of Voice? The speech, actions, and portrayal of women in New Kingdom literary texts, dating c.1550 to 1070 B.C.” PhD dissertation. University of Auckland, New Zealand.
- Dal Bo, Federico. 2013. *Massekhet Keritot. Volume V/7. Text, Translation, and Commentary*. Tübingen: Mohr Siebeck.
- Dal Bo, Federico. 2021. “A Foetus Shaped Like a Sandal: Birth Anomalies in Talmudic Tractate Niddah.” In *Defining Jewish Medicine. Transfer of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 93–118.
- Dasen, Véronique. 1997. “Multiple Births in Graeco-Roman Antiquity.” *Oxford Journal of Archaeology* 16,1: 49–63.
- Dasen, Véronique. 2005a. “Représentations de la vie utérine sur les gemmes magiques gréco-romaines. Voir l’invisible.” *Revue du praticien* 55,5: 574–577.
- Dasen, Véronique. 2005b. “Blessing or portents? Multiple births in ancient Rome.” In *Hoping for continuity. Childhood, education and death in Antiquity and the Middle Ages*. Edited by K. Mustakallio, J. Hanska, H.-L. Sainio, and V. Vuolanto. Rome: Institutum Romanum Finlandiae. Pages 72–83.
- Dasen, Véronique, ed. 2007. *L’Embryon humain à travers l’histoire*. Gollion: Interfolio.
- Dasen, Véronique. 2011. “Childbirth and infancy in Greek and Roman Antiquity.” In *A companion to families in the Greek and Roman worlds*. Edited by Beryl Rawson. Malden, MA: Wiley-Blackwell, Pages 291–314.
- Dasen, Véronique. 2012. “Bibliographies sélectives. I. La nourrice et le lait. Antiquité – Moyen Âge.” In *Art de manger, art de vivre: Nourriture et société de l’Antiquité à nos jours*. Edited by V. Dasen and M.-Cl. Gérard-Zai. Gollion: Infolio. Pages 301–313.
- Dasen, Véronique. 2013. “Becoming Human: from the Embryo to the Newborn Child.” In *The Oxford Handbook of Childhood and Education in the Classical World*. Edited by Judith Evans Grubbs, Tim Parkin, and With Roslynne Bell. Oxford: Oxford University Press. Pages 17–39.
- Dasen, Véronique. 2019. “Magical milk stones?.” In *Plutarco, entre dioses y astros. Homenaje al profesor Aurelio Pérez Jiménez de sus discípulos, colegas y amigos*. 2 vols. Edited by Juan F. Martos Montiel, Cristóbal Macías Villalobos, and R. Caballero. Zaragoza: Libros Pórtico. Pages 1035–1048.

- Dasen, Véronique, and Sandrine Ducaté-Paarmann. 2006. "Hysteria and metaphors of the uterus in classical Antiquity." In *Images and gender: contributions to the hermeneutics of reading ancient art*. Edited by Silvia Schroer. Fribourg: Academic Press. Pages 239–261.
- Dasen, Véronique, Francesca Arena, Yasmina Foehr-Janssens, Irene Maffi, and Daniela Solfaroli Camillocci, eds. 2023. *Allaiter de l'Antiquité à nos jours*. Turnhout: Brepols. (in press)
- Davidovich Eshed, Avital. 2014. "'How then could I gaze at a virgin'? The Concept of Virginity in Medieval Ashkenazi-Jewish Culture in Christendom." Ph.d. diss., Tel Aviv University. (Hebrew)
- Davidovich Eshed, Avital. 2019. "'These are maidens': Virginity as a Discursive Category in Talmudic Halakah." *Oqimta* 5: 71–99. (Hebrew)
- Davidovich Eshed, Avital. 2020. "From Raw Material to Vessel: Be'ilat Mišvah (Religiously Sanctioned Intercourse) as Transformation." *Oqimta* 7: 1–20. (Hebrew)
- Davis, Stephen J. 2002. "Crossed Texts, Crossed Sex: Intertextuality and Gender in Early Christian Legends of Holy Women Disguised as Men." *Journal of Early Christian Studies* 10,1: 1–36.
- Dean-Jones, Lesley. 1989 "Menstrual Bleeding According to the Hippocratics and Aristotle." *Transactions of the American Philological Association* 119: 177–191.
- Dean-Jones, Lesley. 1991. 'The Cultural Construct of the Female Body in Classical Greek Science.' In *Women's History and Ancient History*. Edited by S. Pomeroy, 11–37. Chapel Hill: University of North Carolina Press.
- Dean-Jones, Lesley. 1992. "The politics of pleasure: female sexual appetite in the Hippocratic Corpus." *Helios* 19: 72–91.
- Dean-Jones, Lesley. 1994. *Women's Bodies in Classical Greek Science*. Oxford: Oxford University Press.
- Dean-Jones, Lesley. 1995. "Autopsia, Historia and What Women Know: The Authority of Women in Hippocratic Gynaecology." In *Knowledge and the Scholarly Medical Traditions*. Edited by Don Bates. Cambridge: Cambridge University Press. Pages 41–59.
- Dean-Jones, Lesley. 2018. "The Hippocratic physician and the female patient." In *The Cambridge Companion to the Hippocratics*. Edited by Peter Pormann. Cambridge: Cambridge University Press. Pages 246–262.
- Decker, Jessica E. 2018. "Manufacturing the Mother. Technical Appropriations of Birth in Ancient Greek Thought." In *Bearing the Weight of the World. Exploring Maternal Embodiment*. Edited by Alys Einion and Jen Rinaldi. Toronto: Demeter Press. Pages 83–98.
- DeConick, April D. 2003. "The Great Mystery of Marriage. Sex and Conception in Ancient Valentinian Traditions." *Vigiliae Christianae* 57,3: 307–342.
- DeForest, Mary Margolies, ed. 1993. *Woman's power, man's game: essays on classical antiquity in honor of Joy K. King*. Wauconda, IN: Bolchazy-Carducci.
- De Lacy, Phillip, ed., trans., comm. 1992. *Galen: On Semen*. Berlin: Akademie Verlag.
- Demand, Nancy. 1994. *Birth, Death, and Motherhood in Classical Greece*. Baltimore: Johns Hopkins University Press.
- Demand, Nancy. 1995. "Monuments, midwives and gynecology." In *Ancient medicine in its socio-cultural context. Vol. 1*. Edited by Philip J. van der Eijk, H. F. J. Horstmannshoff, and P. H. Schrijvers. Leiden: Brill. Pages 275–290.
- Demand, Nancy. 1998. "Women and slaves as Hippocratic patients." In *Women and slaves in Greco-Roman culture: differential equations*. Edited by Sandra R. Joshel and Sheila Murnaghan. London: Routledge. Pages 69–84.

- Depauw, Mark. 2003. "Notes on Transgressing Gender Boundaries in Ancient Egypt." *Zeitschrift für Ägyptische Sprache und Altertumskunde* 130: 49–59.
- DeVun, Leah. 2015. "Erecting Sex: Hermaphrodites and the Medieval Science of Surgery." *Osiris* 30,1: 17–37.
- DeVun, Leah. 2018. "Heavenly Hermaphrodites: Sexual Difference at the Beginning and End of Time." *postmedieval: a journal of medieval cultural studies* 9: 132–146.
- DeVun, Leah. 2021. *The Shape of Sex: Nonbinary Gender from Genesis to the Renaissance*. New York: Columbia University Press.
- De-Whyte, Janice P. 2018. *Wom(b)an: A Cultural-Narrative Reading of the Hebrew Bible Barrenness Narratives*. Leiden: Brill.
- De Zorzi, Nicla. 2014. *La Serie Teratomantica Summa Izbu. Testo, Tradizione, Orizzonti Culturali*. Padua: SARGON Editrice e Libreria.
- Dixon, Suzanne. 1990. *The Roman Mother*. London: Routledge.
- Doroŋtei, Doru C. 2018. "When the angel infuses the Soul ...". Some aspects of Jewish and Christian embryology in the cultural context of Late Antiquity." *Judaica* 74,1–2: 23–68.
- Dova, Stamatia. 2017. "Lactation cessation and the realities of martyrdom in The Passion of Saint Perpetua." *Illinois Classical Studies* 42,1: 245–265.
- Drabkin, Miriam F. and Israel E. Drabkin. 1951. *Caelius Aurelianus, Gynaecia: fragments of a Latin version of Soranus' Gynaecia from a thirteenth century manuscript*. Baltimore: Johns Hopkins Press.
- Draycott, Jane, and Emma-Jayne Graham, Eds. 2017. *Bodies of Evidence – Ancient Anatomical Votives. Past, Present, and Future*. London: Routledge.
- Draycott, Jane. 2019. *Roman Domestic Medical Practice in Central Italy: From the Middle Republic to the Early Empire*. London: Routledge.
- DuBois, Page. 1991/1988. *Sowing the Body: Psychoanalysis and Ancient Representations of Women*. Chicago: University of Chicago Press.
- Dubrau, Alexander A. 2016. "'So bleibt sie unverseht und empfängt Samen' – Weibliche Fertilität, Embryogenese und Rechtsdenken in rabbinischer Auslegung am Beispiel von Numeri 5,28." *Judaica* 72,2: 50–85.
- Dumand Françoise and Christiane Zivie-Coche. 2004. *Gods and Men in Egypt: 3000 BCE to 395 CE*. Ithaca, NY: Cornell University Press.
- Dunning, Benjamin H. 2011. *Specters of Paul: Sexual Difference in Early Christian Thought*. Philadelphia: University of Pennsylvania Press.
- Dunstan, Gordon R., ed. 1990. *The Human Embryo. Aristotle and the Arabic and European Traditions*. Exeter: University of Exeter Press.
- Dupras, Tosha L., Sandra M. Wheeler, Lana Williams, and Peter Sheldrick. 2015. "Birth in Ancient Egypt: Timing, Trauma, and Triumph? Evidence from the Dakhleh Oasis." In *Egyptian Bioarchaeology. Humans, Animals, and the Environment*. Edited by Salima Ikram, Jessica Kaiser, and Roxie Walker. Leiden: Sidestone Press. Pages 53–65.
- Ecce, Giulia. 2017. "Fixing Ethical Rules for Midwives in the Early Roman Imperial Period: Soranus, Gynaecia I 3–4." *Sudhoffs Archiv* 101,2: 125–138.
- Ecce, Giulia. 2020. "Galen on Infertility in the Commentary on the Hippocratic Aphorisms, book 5." *Quaderni del Ramo d'Oro on-line* 12: 52–72.
- Eckstein, Juliane. 2019. "'Why did knees meet me?': Giving birth on one's knees in Job 3:12." *Catholic Biblical Quarterly* 81,3: 381–404.
- Edenburg, Cynthia. 2009. "Ideology and social context of the Deuteronomic women's sex laws (Deuteronomy 22:13–29)." *Journal of Biblical Literature* 128: 43–60.

- Eilberg-Schwarz, Howard, ed. 1992. *People of the Body: Jews and Judaism from an Embodied Perspective*. Albany: SUNY Press.
- Elm, Susanna. 1994. *"Virgins of God": The Making of Asceticism in Late Antiquity*. Oxford: Clarendon Press.
- Emmenegger, Gregor. 2014. *Wie die Jungfrau zum Kind kam: zum Einfluss antiker medizinischer und naturphilosophischer Theorien auf die Entwicklung des christlichen Dogmas*. Fribourg: Academic Press.
- ETCSL: Black, Jeremy A., Cunningham, Graham, Ebeling, Jarle, Flückiger-Hawker, Esther, Robson, Eleanor, Taylor, Jon and Gábor Zólyomi, *The Electronic Text Corpus of Sumerian Literature* (<http://etcs1.orinst.ox.ac.uk>), Oxford 1998–2006.
- Erbele-Küster, Dorothea. 2008. *Körper und Geschlecht. Studien zur Anthropologie von Leviticus 12 und 15*. Neukirchen-Vluyn: Neukirchener Verlag.
- Erbele-Küster, Dorothea. 2019. "Archaeological and textual evidence for menstruation as gendered taboo in the Second Temple period?" In *Gender and Social Norms in Ancient Israel, Early Judaism and Early Christianity*. Edited by Michael Bauks, Katharina Galor, and Judith Hartenstein. Göttingen: Vandenhoeck & Ruprecht. Pages 169–184.
- Eskenazi, Tamara C. 2015. "Non-Gender Equality at Creation." *TheTorah.com*. Cited 20 November 2020. Online: <https://thetorah.com/article/non-gender-equality-at-creation-the-other-benefits-of-partners>
- Evans-Grubbs, Judith. 1994. "'Pagan' and 'Christian' Marriage: the State of the Question." *Journal of Early Christian Studies* 2,4: 361–412.
- Eyben, Emiel. 1972. "Antiquity's View of Puberty." *Latomus* 31, 3: 677–697.
- Falcon, Andrea. 2021. "The Reception of Aristotle's Biology in Late Antiquity and Beyond." In *The Cambridge Companion to Aristotle's Biology*. Edited by Sophia M. Connell. Cambridge: Cambridge University Press. Pages 246–260.
- Fantham, Elaine et al., eds. 1994. *Women in the Classical World. Image and Text*. Oxford: Oxford University Press.
- Faraone, Christopher A. 2011. "Magical and Medical Approaches to the Wandering Womb in the Ancient Greek World." *Classical Antiquity* 30,1: 1–32.
- Farber, Walter. 2014. *Lamaštu. An Edition of the Canonical Series of Lamaštu Incantations and Rituals and Related Texts from the Second and First Millennia B. C.* Winona Lake: Eisenbraun.
- Farber, Zev. 2014. "The Purification of a Niddah: The Torah Requirement." *TheTorah.com*. Cited 18 April 2021. Online: <https://thetorah.com/article/the-purification-of-a-niddah-the-torah-requirement>
- Farber, Zev. 2017. "The Parturient's Days of Purity: From Torah to Halacha." *TheTorah.com*. Cited 26 July 2021. Online: <https://thetorah.com/article/the-parturients-days-of-purity-from-torah-to-halacha>
- Farber, Zev. 2020. "Postpartum Impurity: Why Is the Duration Double for a Girl?" *TheTorah.com*. Cited 26 July 2021. Online: <https://thetorah.com/article/postpartum-impurity-why-is-the-duration-double-for-a-girl>
- Faust, Avraham, and Hayah Katz. 2017. "The Archaeology of Purity and Impurity: A Case-Study from Tel 'Eton, Israel." *Cambridge Archaeological Journal* 27,1: 1–27.
- Feder, Yitzhaq. 2014a. "The Semantics of Purity in the Ancient Near East: Lexical Meaning as a Projection of Embodied Experience." *Journal of Ancient Near Eastern Religions* 14: 87–113.

- Feder, Yitzhaq. 2014b. "The Purification of a Niddah: The Legal Responsibility of the Reader." *TheTorah.com*. Cited 18 April 2021. Online: <https://thetorah.com/article/the-purification-of-a-niddah-the-legal-responsibility-of-the-reader>
- Feder, Yitzhaq. 2016. "A Sin Offering for Birth Anxiety." *TheTorah.com*. Cited 26 July 2021. Online: <https://thetorah.com/article/a-sin-offering-for-birth-anxiety>
- Feinstein, Eve L. 2013. "The Rape of the Unbetrothed Virgin in Torah and Assyrian Law." *TheTorah.com*. Online, <https://thetorah.com/article/the-rape-of-the-unbetrothed-virgin-in-torah-and-assyrian-law>
- Feinstein, Eve L. 2014. *Sexual Pollution in the Hebrew Bible*. Oxford: Oxford University Press.
- Feinstein, Eve L. 2016. "Sex During Menstruation: From Impurity to Prohibition." *TheTorah.com*. Cited on 18 April 2021. Online: <https://thetorah.com/article/sex-during-menstruation-from-impurity-to-prohibition>
- Feucht, Erika. 1995. *Das Kind im Alten Ägypten. Die Stellung des Kindes in Familie und Gesellschaft nach altägyptischen Texten und Darstellungen*. Frankfurt/New York: Campus-Verlag.
- Feucht, Erika. 2003. "Pharaonische Beschneidung." In *Egypt – Temple of the Whole World/ Ägypten – Tempel der ganzen Welt, Studies in Honour of Jan Assmann*. Edited by Sibylle Meyer. Leiden: Brill. Pages 81–94.
- Filipini, Nadia. 2020. *Pregnancy, Delivery, Childbirth. A Gender and Cultural History from Antiquity to the Test Tube in Europe*. London: Routledge.
- Finzsch, Norbert. 2022. "Räume weiblichen Begehrens: Kliteridektomie und heteronormative Einhegung." In *Zwischen Raum und Zeit. Zwischenräumliche Praktiken in den Kulturwissenschaften*. Edited by Muriel González Athenas and Monika Frohnapfel-Leis. Berlin: De Gruyter. Pages 47–75.
- Flannery, Frances. 2012. "'Go, ask a woman's womb': Birth and the Maternal Body as Sources of Revelation and Wisdom in 4 Ezra." *Journal for the Study of the Pseudepigrapha* 21,3: 243–258.
- Fleishman, Joseph. 2008. "The Delinquent Daughter and Legal Innovation in Deuteronomy XXII 20–21." *Vetus Testamentum* 58,2: 191–210.
- Flemming, Rebecca. 2000. *Medicine and the Making of Roman Women. Gender, Nature, and Authority from Celsus to Galen*. Oxford: Oxford University Press.
- Flemming, Rebecca. 2007. "Women, writing, and medicine in the classical world." *Classical Quarterly* 57: 257–279.
- Flemming, Rebecca. 2013a. "Gendering medical provision in the cities of the Roman West." In *Women and the Roman City in the Latin West*. Edited by E. Hemelrijk and G. Woolf. Leiden: Brill. Pages 271–293.
- Flemming, Rebecca. 2013b. "The invention of infertility in the classical Greek world: medicine, divinity, and gender." *Bulletin of the History of Medicine* 87: 565–590.
- Flemming, Rebecca. 2016. "Anatomical votives: Popular Medicine in Republican Italy?" In *Popular Medicine in Graeco-Roman Antiquity*. Edited by William V. Harris. Leiden: Brill. Pages 105–125.
- Flemming, Rebecca. 2017. "Wombs for the gods." In *Bodies of Evidence – Ancient Anatomical Votives. Past, Present, and Future*. Edited by Jane Draycott and Emma-Jayne Graham. London: Routledge. Pages 112–130.
- Flemming, Rebecca. 2018. "Galen's Generations of Seeds." In *Reproduction: antiquity to the present day*. Edited by Nick Hopwood, Rebecca Flemming, and Lauren Kassell. Cambridge: Cambridge University Press. Pages 95–108.

- Flemming, Rebecca. 2021a. "Fertility control in ancient Rome." *Women's History Review* 30,6: 896–914.
- Flemming, Rebecca. 2021b. "One-seed, two-seed, three-seed? Reassessing ancient theories of generation." In *Bodily fluids in Antiquity*. Edited by Mark Bardley, Victoria Leonard, and Laurence Totelin. New York: Routledge. Pages 158–172.
- Flemming, Rebecca, and Ann Ellis Hanson. 1998. "Hippocrates' 'Peri Partheniôn' (Diseases of Young Girls): Text and Translation." *Early Science and Medicine* 3,3: 241–252.
- Föllinger, Sabine, ed. 2022. *Aristotle's Generation of Animals. A Comprehensive Approach*. Berlin: De Gruyter.
- Fonrobert, Charlotte E. 2000. *Menstrual Purity: Rabbinic and Christian Reconstructions of Biblical Gender*. Stanford, CA: Stanford University Press.
- Fonrobert, Charlotte E. 2005. "On *Carnal Israel* and the Consequences: Talmudic Studies Since Foucault." *Jewish Quarterly Review* 95,3: 462–469.
- Fonrobert, Charlotte E. 2006. "The Semiotics of the Sexed Body in Early Halakhic Discourse." In *Closed and Open: Readings of Rabbinic Texts*. Edited by Matthew A. Krauss. Piscataway, NJ: Gorgias Press. Pages 69–96.
- Fonrobert, Charlotte E. 2007. "Regulating the Human Body: Rabbinic Legal Discourse and the Making of Jewish Gender." In *The Cambridge Companion to the Talmud and Rabbinic Literature*. Edited by Charlotte E. Fonrobert and Martin Jaffee. Cambridge: Cambridge University Press. Pages 270–294.
- Fonrobert, Charlotte E. 2008. "Blood and Law: Uterine Fluids and Rabbinic Maps of Identity." *Henoch* 30,2: 243–266.
- Fonrobert, Charlotte E. 2014. "Gender duality and its subversions in rabbinic law." In *Gender in Judaism and Islam: Common Lives, Uncommon Heritage*. Edited by Firoozeh Kashani-Sabet and Beth Wenger. New York: New York University Press. Pages 106–126.
- Foscati, Alessandra. 2021. "From the ancient myth of the Caesars to the medieval and Renaissance tradition: the practice of Caesarean section in *De universa mulierum medicina* by Rodrigo de Castro." *Journal of the History of Medicine and Allied Sciences* 76: 1–19.
- Foskett, Mary F. 2002. *A Virgin Conceived: Mary and Classical Representations of Virginity*. Bloomington: Indiana University Press.
- Fox, Nili S. 2009. "Gender Transformation and Transgression: Contextualizing the Prohibition of Cross-Dressing in Deuteronomy 22:5." In *Mishneh Todah: Studies in Deuteronomy and Its Cultural Environment in Honor of Jeffrey H. Tigay*. Edited by Nili S. Fox, David A. Glatt-Gilad, and Michael J. Williams. University Park, PA: Eisenbrauns. Pages 49–72.
- Frandsen, Paul J. 2007. "The Menstrual 'Taboo' in Ancient Egypt." *Journal of Near Eastern Studies* 66,2: 81–106.
- Frankfurter, David. 2006. "Fetus Magic and Sorcery Fears in Roman Egypt." *Greek, Roman and Byzantine Studies* 46,1: 37–62.
- French, Valerie. 1986. "Midwives and maternity care in the Roman world." *Helios* 13,2: 69–84.
- French, Katherine L. 2021. *Household Goods and Good Households in Late Medieval London*. Philadelphia: University of Pennsylvania Press.
- Frier, Bruce W. 1994. "Natural Fertility and Family Limitation in Roman Marriage." *Classical Philology* 89: 318–333.
- Fröhlich, Ida. 2011. "Medicine and Magic in Genesis Apocryphon: Ideas on Human Conception and its Hindrances." *Revue de Qumran* 98: 177–198.

- Fröhlich, Ida. 2015. "The Female Body in Second Temple Literature." In *Religion and Female Body in Ancient Judaism and Its Environments*. Edited by Géza G. Xeravitzs. Berlin: De Gruyter. Pages 109–127.
- Frymer-Kensky, Tikva. 1998. "Virginity in the Bible." In *Gender and Law in the Hebrew Bible and the Ancient Near East*. Edited by Victor H. Matthews, Bernard S. Levinson, and Tikva Frymer-Kensky. Sheffield: Sheffield Academic Press. Pages 79–96.
- Furst, Lilian R. 1999. *Women Healers and Physicians: Climbing a Long Hill*. University Press of Kentucky.
- Gaillard-Seux, Patricia. 1998. "Les amulettes gynécologiques dans les textes latins médicaux de l'Antiquité." In *Maladie et maladies dans les textes latins antiques et médiévaux*. Edited by Cari Deroux. Brussels: Latomus. Pages 70–84.
- Garroway, Kristine Henriksen. 2019. "Gendering a Child with Ritual." *TheTorah.com*. Cited 26 July 2021. Online: <https://thetorah.com/article/gendering-a-child-with-ritual>.
- Gelber, Jessica. 2019. "Females in Aristotle's embryology." In *Aristotle's Generation of animals. A critical guide*. Edited by Andrea Falcon and David Lefebvre. Cambridge: Cambridge University Press Pages 171–187.
- Geller, Markham J. 1988. "New Duplicates to SBTU II." *Archiv für Orientforschung* 35: 1–23.
- Geller, Markham J. 2004. *Akkadian Healing Therapies in the Babylonian Talmud*. Berlin: Max Planck Institute for the History of Science.
- Geller, Markham J. 2014. *Melothesia in Babylonia. Medicine, Magic, and Astrology in the Ancient Near East*. Berlin: De Gruyter.
- Geller, Markham. 2018. "The Exorcist's Manual (KAR 44)." In *Assyrian and Babylonian Scholarly Text Catalogues. Medicine, Magic and Divination*. Edited by Ulrike Steinert. Berlin: De Gruyter. Pages 292–312.
- Geller, Markham J. 2021. "Babylonian gynaecology in Greek (or vice versa)." *Archiv für Orientforschung* 54: 343–347.
- George, Andrew R. 2016. "Die Kosmogonie des alten Mesopotamien." In *Anfang und Ende. Vormoderne Szenarien von Weltentstehung und Weltuntergang*. Edited by Marion Gindhart and Tanja Pommerening. Darmstadt: von Zabern. Pages 7–25.
- Germanidou, Sophia, ed. 2022. *Secular Byzantine women. Art, archaeology and ethnography of female material culture from late Roman to Post-Byzantine times*. New York: Routledge.
- Ghalioungui, Paul. 1977. "The Persistence and Spread of Some Obstetric Concepts Held in Ancient Egypt." *Annales de Service des Antiquités de l'Égypte* 62: 141–154.
- Gherchanoc, Florence. 2020a. "From body to behavior: maternal transmission in the ancient greek world." In *Maternal conceptions in classical literature and philosophy*. Edited by Alison Sharrock and Alison Keith. Toronto: University of Toronto Press. Pages 63–81.
- Gherchanoc, Florence. 2020b. "Le sein maternel ou ce que transmet le lait. Les exemples atypiques d'Héra et d'Aphrodite en Grande Grèce au IV^e siècle avant notre ère." *Medicina nei Secoli* 32,3: 755–776.
- Gilman, Sander et al. 1993. *Hysteria Beyond Freud*. Berkeley: University of California Press.
- Giorganni, Franco. 2006. *Hippokrates, Über die Natur des Kindes (De genitura und De natura pueri)*. Herausgegeben, ins Deutsche und Italienische uebersetzt und textkritisch kommentiert. Wiesbaden: Reichert Verlag.
- Glancy, Jennifer A. 2010. *Corporal Knowledge: Early Christian Bodies*. Oxford: Oxford University Press.

- Glassner, Jean-Jacques. 2012. "Ishtar, maîtresse des inversions, patronne des rites de passage." In *Femmes médiatrices et ambivalentes. Mythes et imaginaires*. Edited by D'Anna Caiozzo and Nathalie Ernoul. Paris: Armand Colin. Pages 259–267.
- Glassner, Jean-Jacques. 2014. "Rites de passage en Mésopotamie: Le rôle d'Inanna-Ištar." In *Life, Death, and Coming of Age in Antiquity: Individual Rites of Passage in the Ancient Near East and Adjacent Regions*. Edited by Alice Mouton and Julie Patrier. Leiden: Nederlands Instituut voor het Nabije Oosten. Pages 507–20.
- Gleason, Maud W. 1995. *Making Men: Sophists and Self-Presentation in Ancient Rome*. Princeton: Princeton University Press.
- Golden, Mark, and Peter Toohey, eds. 2002. *Sex and Difference in Ancient Greece and Rome*. Edinburgh: Edinburgh University Press.
- Gorman, Michael J. 1998. *Abortion and the Early Church: Christian, Jewish and Pagan Attitudes in the Greco-Roman World*. Eugene, OR: Wipf and Stock.
- Gourevitch, Danielle. 1984. *Le mal d'être femme: La femme et la médecine dans la Rome Antique*. Paris: Les Belles Lettres.
- Gourevitch, Danielle. 1996. "La gynécologie et l'obstétrique à l'époque impériale." *Aufstieg und Niedergang der Römischen Welt* (ANRW) 37.3. Edited by Wolfgang Haase. Berlin: De Gruyter, 2083–2146.
- Gourevitch, Danielle. 1995. "Women who suffer from a man's Disease: the Example of Satyriasis and the debate on Affections specific to the Sexes." In *Women in Antiquity: New Assessments*. Edited by R. Hawley and B. Levick: Routledge. Pages 149–165.
- Gourevitch, Danielle. 2000. "Préparation intellectuelle et déontologie de la sage-femme: du Traité Des maladies des femmes de Soranos d'Ephèse aux Infortunes de Dinah." In *From Athens to Jerusalem. Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel Kottek and Manfred Horstmanshoff. Rotterdam: Erasmus Publishing. Pages 69–81.
- Gourevitch, Danielle. 2004. "Chirurgie obstétricale dans le monde romain: Césarienne et embryotomie." In *Naissance et petite enfance dans l'Antiquité: Actes du colloque de Fribourg, 28 novembre – 1er décembre 2001*. Edited by Véronique Dasen. Friburg: Academic Press; Göttingen: Vandenhoeck & Ruprecht. Pages 239–264.
- Gourevitch, Danielle. 2013. "La stérilité féminine dans le monde romain: vitium ou morbus, état ou maladie?." *Histoire des Sciences Médicales* 47,2: 219–231.
- Graham, Emma-Jayne. 2013. "The making of infants in Hellenistic and early Roman Italy: a votive perspective." *World Archaeology*, 45,2: 215–231. <http://dx.doi.org/10.1080/00438243.2013.799041>
- Graumann, Lutz A. 2013. "Monstruous births and retrospective diagnosis: the case of hermaphrodites in Antiquity." In *Disabilities in Roman Antiquity. Disparate bodies a Capite ad Calcem*. Edited by Christian Laes, Chris Goodey, and M. Lynn Rose. Leiden: Brill. Pages 181–209.
- Graves-Brown, Carolyn, ed. 2008. *Queering sex and gender in Sex and Gender in Ancient Egypt: 'Don Your Wig for a Joyful Hour'*. Swansea: The Classical Press of Wales.
- Green, Lyn. 2001. "In Search of ancient Egyptian Virgins: A Study in Comparative Values." *Journal of the Society for the Study of Egyptian Antiquities* 28: 90–98.
- Green, Monica. 2000. *Women's Healthcare in the Medieval West. Texts and Contexts*. Aldershot: Ashgate.
- Green, Monica. 2002. *The Trotula: An English Translation of the Medieval Compendium of Women's Medicine*. Philadelphia: University of Pennsylvania Press.

- Green, Monica. 2008. *Making Women's Medicine Masculine: The Rise of Male Authority in Pre-Modern Gynaecology*. Oxford: Oxford University.
- Green, Monica H. 2010. "Bibliography on Medieval Women, Gender, and Medicine (1985–2009)." Digital Library of Sciència.cat, February 2010, Universitat de Barcelona. Cited 16 May 2022. Online: http://www.sciencia.cat/biblioteca/documents/Green_CumulativeBib_Feb2010.pdf
- Gribetz, Sarit Kattan. 2017. "Women's Bodies as Metaphors for Time in Biblical, Second Temple, and Rabbinic Literature." In *The Construction of Time in Antiquity: Ritual, Art, and Identity*. Edited by Jonathan Ben-Dov and Lutz Doering. Cambridge: Cambridge University Press. Pages 173–204.
- Groff, Elisa. 2019. "The Sexual and Reproductive Health of Women in Sixth-Century Christianity." Ph.d. diss., University of Exeter.
- Groff, Elisa. Forthcoming. "Negotiating Women's Sexual Identity with a Scalpel: Ancient and Contemporary Views on Clitoridectomy." In *Body Technologies in the Greco-Roman World: Technosoma, Gender and Sex*. Edited by Giulia M. Chesi and Maria Gerolemou. Liverpool: Liverpool University Press.
- Grohmann, Marianne. 2005. "Ambivalent images of birth in Psalm VII 15." *Vetus Testamentum* 55,4: 439–449.
- Grohmann, Marianne. 2006. "'Du hast mich aus meiner Mutter Leib gezogen'. Geburt in Psalm 22." In *"Du hast mich aus meiner Mutter Leib gezogen". Beiträge zur Geburt im Alten Testament*. Edited by Detlef Dieckmann and Dorothea Erbele-Küster. Neukirchen-Vluyn: Neukirchener Verlag. Pages 73–97.
- Grohmann, Marianne. 2007. *Fruchtbarkeit und Geburt in den Psalmen*. Tübingen: Mohr Siebeck.
- Grohmann, Marianne. 2009. "Der Anfang des Lebens. Anthropologische Aspekte der Rede von Geburt im Alten Testament." In *Der Mensch im Alten Israel. Neue Forschungen zur alttestamentlichen Anthropologie (HBS 59)*. Edited by Bernd Janowski and Kathrin Liess. Freiburg: Herder. Pages 365–399.
- Grohmann, Marianne. 2010a. "Metaphors of God, Nature and Birth in Psalm 90,2 and Psalm 110,3." In *Metaphors in the Psalms*. Edited by Pierre van Hecke and Antje Labahn. Leuven: Peeters. Pages 23–34.
- Grohmann, Marianne. 2010b. "Biblical and Rabbinic Ideas of Female Semen? An Intertextual Reading of Lev 12,2." *Scandinavian Journal of the Old Testament* 24: 39–52.
- Grohmann, Marianne. 2010c. "The Imagery of the Weaned Child in Psalm 131." In *The Composition of the Book of Psalms*. Edited by Erich Zenger. Leuven: Peeters. Pages 513–522.
- Grohmann, Marianne. 2019. "Metaphors of Miscarriage in the Psalms." *Vetus Testamentum* 69: 219–231.
- Groneberg, Brigitte. 1986. "Die sumerisch-akkadische Inanna/Ištar: Hermaphroditos?" *Welt des Orients* 17: 25–46.
- Groneberg, Brigitte. 1997. *Lob der Ištar. Gebet und Ritual an die altbabylonische Venusgöttin*. Groningen: Styx.
- Gruber, Mayer I. 1989. "Breast-Feeding Practices in Biblical Israel and in Old Babylonian Mesopotamia." *Journal of the Ancient Near Eastern Society* 19: 61–83.
- Guinan, Ann K. 1997. "Auguries of Hegemony. The Sex Omens of Mesopotamia." *Gender and History* 9,3: 462–479.
- Guyvarc'h, Morgan, and Véronique Mehl, eds. 2022. *Utérus. De l'organe aux discours*. Rennes: Presses Universitaires de Rennes.

- Hackworth Petersen, Lauren, and Patricia Salzman-Mitchell, eds. 2012. *Mothering and Motherhood in Ancient Greece and Rome*. Austin: University of Texas Press.
- Hadjittofi, Fotini. 2016. "Cross-dressing in the declamations of Choricus of Gaza." In *Fabrique de la déclamation antique (controverses et suasoires)*. Edited by Rémy Poingnault and Catherine Schneider. Lyon: Maison de l'Orient et de la Méditerranée – Jean Pouilloux. Pages 355–371.
- Hadzisteliou Price, Theodora. 1978. *Kourotrophos. Cult and Representations of the Greek Nursing Deities*. Leiden: Brill.
- Haetinen, Aino. 2017. "'I am a fully laden boat!' A Mesopotamian Metaphor Revisited." *KASKAL Rivista di storia, ambienti e culture del Vicino Oriente Antico* 14: 169–186.
- Hallett, Judith P. 1989. "Female Homoeroticism and the Denial of Roman Reality in Latin Literature." *Yale Journal of Criticism* 3: 209–227.
- Hallett, Judith P., and Marilyn B. Skinner, eds. 1997. *Roman Sexualities*. Princeton: Princeton University Press.
- Hamori, Esther J. 2013. "Heavenly bodies: pregnancy and birth omens in Israel." *Bible and Ancient Israel* 2,4: 479–499.
- Hanson, Ann Ellis. 1987. "The eight months' child and the etiquette of birth: Obsit omen!." *Bulletin of the History of Medicine* 61: 589–602.
- Hanson, Ann E. 1990. "The Medical Writers' Woman." in *Before Sexuality: The Construction of Erotic Experience in the Ancient World*. Edited by D. M. Halperin, J. J. Winkler and F. I. Zeitlin. Princeton: Princeton University Press, 309–337.
- Hanson, Ann E. 1991a. "The Restructuring of Female Physiology at Rome." In *Les Ecoles Medicales a Rome: Actes du 2eme Colwque international sur les textes medicaux latins antiques, Lausanne, septembre 1986*. Edited by Philippe Mudry, Jackie Pigeaud. Geneva: Droz. Pages 255–268.
- Hanson, Ann E. 1991b. "Continuity and Change: Three Case Studies in Hippocratic Gynecological Therapy and Theory." In *Women's History and Ancient History*. Edited by Sarah B. Pomeroy. Chapel Hill: University of North Carolina Press. Pages 73–110.
- Hanson, Ann E. 1992a. "The Logic of the Gynecological Prescriptions." In *Tratados hipocráticos: estudios acerca de su contenido, forma e influencia: actas del VIIe Colloque international hippocratique, Madrid, 24–29 de septiembre de 1990*. Edited by Juan Antonio López Férez. Madrid: Universidad Nacional de Educación a Distancia. Pages 235–250.
- Hanson, Ann E. 1992b. "Conception, Gestation, and the Origin of Female Nature in the Corpus Hippocraticum." *Helios* 19: 31–71.
- Hanson, Ann E. 1994. "A division of labor. Roles for men in Greek and Roman births." *Thamyris* 1,2: 157–202.
- Hanson, Ann E. 1995a. "Paidopoiia: Metaphors for Conception, Abortion, and Gestation in the Hippocratic Corpus." In *Ancient Medicine in Its Socio-Cultural Context*, edited by Philip J. van der Eijk, H.F. J. Horstmannshoff, and P. H. Schrijvers. Amsterdam: Rodopi. Pages 291–307.
- Hanson, Ann E. 1995b. "Uterine amulets and Greek uterine medicine." *Medicina nei secoli* 7,2: 281–299.
- Hanson, Ann E. 1996. "Phaenarete: mother and maia." In *Hippokratische Medizin und antike Philosophie: Verhandlungen des VIII. Internationalen Hippokrates Kolloquiums in Kloster Banz/Staffelstein vom 23. Bis 28. September 1993*. Edited by Renate Wittern and Pierre Pellegrin. Hildesheim: Olms Weidmann. Pages 159–181.

- Hanson, Ann E. 1998. "Talking Recipes in the Gynaecological Texts of the Hippocratic Corpus." In *Parchments of Gender: Deciphering the Bodies of Antiquity*. Edited by Maria Wyke. Oxford: Oxford University Press. Pages 71–94.
- Hanson, Ann E. 2004. "Aphorismi 5.28–63 and the Gynaecological Texts of the *Corpus Hippocraticum*." In *Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine*. Edited by Manfred F. Horstmanshoff and Marten Stol. Leiden: Brill. Pages 277–304.
- Hanson, Ann E. 2007. "The Hippocratic *Parthenos* in Sickness and Health." In *Virginity Revisited: Configurations of the Unpossessed Body*. Edited by Bonnie MacLachlan and Judith Fletcher. Toronto: University of Toronto Press. Pages 40–65.
- Hanson, Ann E. 2008. "Gradualist view of fetal development." In *L'Embryon: Formation et Animation*. Edited by Luc Brisson, Marie-Helene Congourdeau, and Jean-Luc Solère. Paris: J. Vrin. Pages 95–108.
- Hanson, Ann E., and Monica H. Green. 1994. "Soranus, Methodicorum Princeps." *ANRW* 2, 37, 2: 988–1075.
- Harlow, Mary, and Ray Laurence. 2002. *Growing Up and Growing Old in Ancient Rome: A Life Course Approach*. London: Routledge.
- Harrington, Hannah. 2004. *The Companion to the Qumran Scrolls – The Purity Texts*. New York: T&T Clark.
- Harrington, Hannah. 2019. *The Purity and Sanctuary of the Body in Second Temple Judaism*. Göttingen: Vandenhoeck & Ruprecht.
- Harris, Rivkah. 2000. *Gender and Aging in Mesopotamia: The Gilgamesh Epic and Other Ancient Literature*. Norman, OK: University of Oklahoma Press.
- Hartney, Aileen. 1999 "Manly women and womanly men: the subintroductae and John Chrysostom." In *Desire and Denial in Byzantium: Papers from the Thirty-First Spring Symposium of Byzantine Studies*. Edited by Liz James. Aldershot: Routledge.
- Hasan-Rokem, Galit, and Israel J. Yuval. 2017. "Myth, History and Eschatology in a Rabbinic Treatise on Birth." In *Talmudic Transgressions: Engaging the Work of Daniel Boyarin*. Edited by Charlotte Elisheva Fonrobert, Ishay Rosen-Zvi, Aharon Shemesh, Moulie Vidas with the collaboration of James Adam Redfield. Leiden: Brill. Pages 243–273.
- Hasan-Rokem, Galit, and Israel J. Yuval. 2021. "Rabbinic Reflections on Divine– Human Interactions. Speaking in Parables on the Miracle of Pregnancy and Birth." In *Tolerance, Intolerance, and Recognition in Early Christianity and Early Judaism*. Edited by Outi Lehtipuu and Michael Labahn. Amsterdam: Amsterdam University Press. Pages 195–226.
- Haskell, Ellen D. 2012. *Suckling at My Mother's Breasts: The Image of a Nursing God in Jewish Mysticism*. Albany: State University of New York Press. Pages 15–37.
- Hauptman, Judith. 2013. "A synchronic and diachronic reading of Mishnah Shabbat 2:6: on the topic of why women die in childbirth." In *Envisioning Judaism. Studies in Honor of Peter Schäfer on the Occasion of his Seventieth Birthday. Vol. I*. Edited by Ra'anan S. Bousttan et al. Tübingen: Mohr Siebeck. Pages 475–486.
- Haszmichali, Myrto. 2021. "The Early Reception of Aristotle's Biology." In *The Cambridge Companion to Aristotle's Biology*. Edited by Sophia M. Connell. Cambridge: Cambridge University Press. Pages 228–245.
- Heeßel, Nils P. 2006. "Der verschwiegene Unterschied: Die Geschlechterdifferenz in medizinischen Texten aus dem Alten Mesopotamien." In *Krankheit und Heilung. Gender – Religion – Medizin*. Edited by Bernhardd Heininger and Ruth Lindner. Münster: LIT. Pages 9–24.

- Heimpel, Wolfgang. 1997. "Mythologie. A. I. In Mesopotamien." *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 8. Edited by Dietz O. Edzard et al. Berlin: De Gruyter. Pages 537–567.
- Helle, Sophus. 2018. "Only in Dress? Methodological Concerns Regarding Non-Binary Gender." In *Studying Gender in the Ancient Near East*. Edited by Saana Svård and Agnès García-Ventura. University Park, PA: Eisenbrauns. Pages 41–53.
- Henry, Devin. 2005. "Embryological Models in Ancient Philosophy." *Phronesis* 50,1: 1–42.
- Hersch Karen K. 2010. *The Roman Wedding: Ritual and Meaning in Antiquity*. Cambridge: Cambridge University Press.
- Hieke, Thomas. 2015. "Menstruation and Impurity." In *Religion and Female Body in Ancient Judaism and Its Environments*. Edited by Géza G. Xeravitzs. Berlin: De Gruyter. Pages 54–70.
- Himmelfarb, Martha. 1999. "Sexual Relations and Purity in the Temple Scroll and the Book of Jubilees." *Dead Sea Discoveries* 6: 11–36.
- Hin, Saskia. 2011. "Family matters: fertility and its constraints in Roman Italy." In *Demography and the Graeco-Roman world. New insights and approaches*. Edited by Claire Holleran and April Pudsey. Cambridge: Cambridge University Press. Pages 99–116.
- Höbl, Günther. 2022. *The Shrine of Eileithyia, Minoan Goddess of Childbirth and Motherhood at the Inatos Cave in Southern Crete, I: The Egyptian-Type Artifacts*, With contr. by Ph. P. Betancourt, K. Chalikias, Philadelphia: INSTAP Academic Press.
- Hoffmann Libson, Ayelet. 2020. "In the shadow of doubt: expertise, knowledge, and systematization in rabbinic purity laws." *AJS Review* 44,1: 99–118.
- Hoffmann, Friedhelm. 2021. "Die Pflanze "Großer Nil" und Anmerkungen zu einigen Fruchtbarkeitsprognosen." In *Wissenschaft und Wissenschaftler im Alten Ägypten. Gedenschrift für Walter Friedrich Reineke*. Edited by Peter Dils, Hans-Werner Fischer-Elfert, Ingelore Hafemann, and Sebastian Richter. Berlin: De Gruyter. Pages 153–170.
- Holmes, Brooke. 2010. *The Symptom and the Subject: The Emergence of the Physical Body in Ancient Greece*. Princeton: Princeton University Press.
- Hong, Yurie. 2012. "Collaboration and conflict. Discourses of maternity in Hippocratic gynecology and embryology." In *Mothering and Motherhood in Ancient Greece and Rome*. Edited by Lauren Hackworth Petersen and Patricia Salzman-Mitchell. Austin: University of Teaxs Press. Pages 71–96.
- Hopwood, Nick. 2009. "Embryology." In *The modern biological and earth sciences*. Vol. 6 of *The Cambridge history of science*. Edited by Peter J. Bowler and John V. Pickstone. Cambridge: Cambridge University Press. Pages 285–315.
- Hopwood, Nick, Rebecca Flemming, and Lauren Kassell, eds. 2018. *Reproduction: antiquity to the present day*. Cambridge: Cambridge University Press.
- Hopkins, Keith. 1965. "Contraception in the Roman Empire." *Comparative Studies in Society and History* 8,1: 124–151.
- Hornsby, Teresa J., and Deryn Guest, eds. 2016. *Transgender, Intersex, and Biblical Interpretation*. Atalanta: SBL Press.
- Horowitz, Maryanne C. 1966. "Aristotle and Women." *Journal of the History of Biology* 9: 183–213.
- Hubbard, Thiomias K., ed. 2013. *A Companion to Greek and Roman Sexualities*. Chichester: Wiley.
- Huizenga, Annette B. 2014. "On Choosing a Wet-Nurse: Physical, Cultural, and Moral Credentials." In *The history of religions school today: essays on the New Testament and relat-*

- ed *Ancient Mediterranean texts*. Edited by Thomas R Blanton, Robert Matthew Calhoun, and Clare K Rothschild. Tübingen: Mohr Siebeck. Pages 241–252.
- Hulverscheidt, Marion et al., eds. 2018. “Special Iddues: On Cliteridectomy.” *Gender Forum: An Internet Journal for Gender Studies* 67. Cited 21 April 2021. Online: <http://genderforum.org/1291-2/>
- Hunt, Hannah. 2019. “Transvestite Women Saints: Performing Asceticism in Late Antiquity.” In *From Living to Visual Images. Paradigms of Corporeal Iconicity in Late Antiquity*, RIHA Journal Special Issue. Edited by Michele Bacci and Vladimir Ivanovici. Heidelberg: Zentral Institut für Kunstgeschichte. No pages. Cited 13 October 2021. Online: <https://doi.org/10.11588/riha.2019.2.70051>
- Ilan, Tal. 1993. “Premarital cohabitation in ancient Judaea: the evidence of the Babatha Archive and the Mishnah (Ketubbot 1:4).” *Harvard Theological Review* 86: 247–64.
- Ilan, Tal. 1995. *Jewish Women in Greco-Roman Palestine: An Inquiry into Image and Status*. Tübingen: Mohr Siebeck.
- Ilan, Tal. 1997. *Mine and Yours Are Hers: Retrieving Women’s History from Rabbinic Literature*. Leiden: Brill.
- Ilan, Tal. 2002. “‘Stolen Water is Sweet’: Women and their Stories between Bavli and Yerushalmi.” In *The Talmud Yerushalmi and Graeco-Roman Culture*. Edited by Peter Schäfer. Tübingen: Mohr Siebeck. Pages 185–224.
- Ilan, Tal. 2006. *Silencing the Queen. The Literary Histories of Shelamzion and Other Jewish Women*. Tübingen: Mohr Siebeck.
- Ilan, Tal. 2015a. “A Menstruant ‘Forced and Immersed’: ‘Women to Think With’ about Intention in the Performance of the Commandments BT Ḥulin 31a–b.” *Nashim: A Journal of Jewish Women’s Studies and Gender Issues* 28: 51–60.
- Ilan, Tal. 2015b. “Since when do women go to Miqveh?: Archaeological and rabbinic evidence.” In *The Archaeology and Material Culture of the Babylonian Talmud*. Edited by Markham J. Geller. Leiden: Brill. 83–96.
- Ilan, Tal. 2023. “Salome’s Medicinal Recipes and Jewish Women Doctors in Antiquity.” (In this volume).
- Ilan, Tal, and Reuven Kipperwasser. 2019. “Virginity and Water: Between the Babylonian Talmud and Iranian Myth.” In *A Thousand Judgements. Festschrift for Maria Macuch*. Edited by Almut Hintze, Desmond Durkin-Meisterernst, and Claudius Naumann. Wiesbaden: Harrassowitz. Pages 193–207.
- Ionescu, Carla. 2018. “Feeding the World: Reconsidering the Multibreasted Body of Artemis Ephesia.” In *Bearing the Weight of the World: Exploring Maternal Embodiment*. Edited by Alys Einion and Jen Rinaldi. Bradford: Demeter Press. Pages 185–202.
- Iricinschi, Eduard. 2013. “Interroga matricem mulieris: The Secret Life of the Womb in 4 Ezra and Sethian Cosmology.” In *Envisioning Judaism: Studies in Honor of Peter Schäfer on the Occasion of his 70th Birthday*. Edited by Ra’anan Boustan et al. Tübingen: Mohr Siebeck. Pages 1–20.
- Irshai, Ronit. 2021. “Cross-dressing in Jewish law and the construction of gender identity.” *Nashim; a Journal of Jewish Women’s Studies and Gender Issues* 38: 46–68.
- Israelowich, Ido. 2020. “The Use of Diet and Regimen by Midwives During Pregnancy, Childbirth, and Postnatal Care in Soranus’ Gynecology.” *Phoenix* 74,1: 100–110.
- Ivanovici, Vladimir, and Sissel Undheim. 2019. “Consecrated virgins as living reliquaries in Late Antiquity.” In *From Living to Visual Images. Paradigms of Corporeal Iconicity in Late Antiquity*, RIHA Journal Special Issue. Edited by Michele Bacci and Vladimir Ivano-

- vici. Heidelberg: Zentral Institut für Kunstgeschichte. No pages. Cited 13 October 2021. Online: <https://doi.org/10.11588/riha.2019.2.70058>
- Jackson, Ralph P. J. 1993. "Roman Medicine: the Practitioners and their Practice." In ANRW 2, 37,1: 80–101.
- Jacobs, Andrew S. 1999. "A family affair: Marriage, class, and ethics in the apocryphal Acts of the Apostles." *Journal of Early Christian Studies* 7,1: 105–138.
- Jacobsen, Thorkild. 1987. *The Harp That Once ... Sumerian Poetry in Translation*. New Haven: Yale University Press.
- James, Elizabeth, ed. 1997. *Women, Men, and Eunuchs: Gender in Byzantium*. London: Routledge.
- Janssen, Rosalind. 2021. "A valid excuse for a day off work: menstruation in an ancient Egyptian village." In *Bodily Fluids in Antiquity*. Edited By Mark Bradley, Victoria Leonard, and Laurence Totelin. London: Routledge. Pages 243–256.
- Jiménez-Serrano, Alejandro, Ramón Martínez-Martos, Vicente Barba-Colmenero, and José Manuel Alba-Gómez. 2020. "A Gynecological Treatment Found in Qubbet el-Hawa and Described in Different Papyri." *Zeitschrift für Ägyptische Sprache und Altertumskunde* 147,1: 171–179.
- Johnsdotter, Sara. 2012. "Projected cultural histories of the cutting of female genitalia: A poor reflection as in a mirror." *History and Anthropology* 23,1: 91–114.
- Johnson, J. Cale, ed. 2020. *Patients and Performative Identities. At the Intersection of the Mesopotamian Technical Disciplines and Their Clients*. University Park, PA: Penn State University Press.
- Johnson, Marguerite, and Terry Ryan, eds. 2005. *Sexuality in Greek and Roman Society and Literature: A Sourcebook*. London: Routledge.
- Joshel, Sandra R. 1986. "Nursing the Master's child: Slavery and the Roman child-nurse." *Signs* 12: 3–22.
- Kanta, Athanasia, and Philip P. Betancourt. 2022. *Honors to Eileithyia at Ancient Inatos: The Sacred Cave of Eileithyia at Tsoutsouros, Crete*. Philadelphia, PA: INSTAP Academic Press.
- Kapparis, Konstantinos. 2002. *Abortion in the Ancient World*. London: Duckworth.
- Katz, Hayah. 2014. "Biblical Purification: Was It Immersion?" *TheTorah.com*. Cited 18 April 2021. Online: <https://thetorah.com/article/biblical-purification-was-it-immersion>
- Kazen, Thomas. 2007. "Explaining Discrepancies in the Purity Laws on Discharges." *Revue Biblique* 114: 348–371.
- Kember, Owen. 1971. "Right and Left in the Sexual Theories of Parmenides." *The Journal of Hellenic Studies* 91: 70–79.
- Kessel, Grigory. 2017. "A Syriac Medical *Kunnāšā* ʾĪšō' bar ʾAlī (9th c.): First Soundings." *Intellectual History of the Islamicate World* 5: 228–251.
- Kessler, Gwynn. 2005. "Let's Cross That Body When We Get to It: Gender and Ethnicity in Rabbinic Literature." *Journal of the American Academy of Religion* 73,2: 329–359.
- Kessler, Gwynn. 2009. *Conceiving Israel: The Fetus in Rabbinic Narratives*. Philadelphia: University of Pennsylvania Press.
- Kessler, Gwynn. 2019. "Perspectives on rabbinic constructions of gendered bodies." In *The Wiley-Blackwell Companion to Religion and Materiality*. Edited by Vasudha Narayanan. Chichester: Wiley-Blackwell. Pages 112–168.
- Kessler, Gwynn. 2020. "Rabbinic Gender: Beyond Male and Female." In *A Companion to Late Ancient Jews and Judaism: Third Century BCE to Seventh Century CE*. Edited by Naomi Koltun-Fromm and Gwynn Kessler. Hoboken, NJ: John Wiley. Pages 353–370.

- Kieburg, Anna, and Susanne Moraw, eds. 2014. *Mädchen im Altertum/Girls in Antiquity*. Münster: Waxmann.
- Kiel, Yishai. 2016. *Sexuality in the Babylonian Talmud, Christian and Sasanian Contexts in Late Antiquity*. New York: Cambridge University Press.
- Kiel, Yishai. 2019. "Playing with Children': Talmudic Polemic against Manichaean Sexual Ethics." *Jewish Law Association Studies* 28: 112–136.
- King, Helen. 1986. "Agnodike and the Profession of Medicine." *Proceedings of the Cambridge Philological Society* 32: 53–77.
- King, Helen. 1990. "Making a man: Becoming human in early Greek medicine." In *The Human Embryo: Aristotle and the Arabic and European Traditions*. Edited by G. R. Dunstan. Exeter: University of Exeter Press. Pages 10–19.
- King, Helen. 1991. "Using the Past: Nursing and the Medical Profession in Ancient Greece." In *Anthropology and Nursing*. Edited by Pat Holden and Jenny Littlewood. London: Routledge. Pages 7–24.
- King, Helen. 1993. "Once Upon a Text: Hysteria from Hippocrates." In Gilman, Sander L., Helen King, Roy Porter, G. S. Rousseau, and Elaine Showalter. *Hysteria Beyond Freud*. Berkeley: University of California Press. Pages 3–90.
- King, Helen. 1994. "Producing Woman: Hippocratic Gynaecology." In *Women in Ancient Societies: An Illusion of the Night*. Edited by L. J. Archer et al. London: Macmillan. Pages 102–114.
- King, Helen. 1995. "Self-help, Self-knowledge: In Search of the Patient in Hippocratic Gynaecology." In *Women in Antiquity: New Assessments*. Edited by Richard Hawley and Barbara Levick. London: Routledge.
- King, Helen. 1996. "Hippocrates, Galen, and the Origins of the 'Disease of Virgins.'" *IJCT* 2.3: 372–387.
- King, Helen. 1998. *Hippocrates' Woman: Reading the Female Body in Ancient Greece*. New York: Routledge.
- King, Helen. 2002. "Bound to Bleed: Artemis and Greek Women." In *Sexuality and Gender in the Classical World: Readings and Sources*. Edited by Laura K. McClure. Oxford: Blackwell. Pages 77–101.
- King, Helen. 2004. *The Disease of Virgins: Green Sickness, Chlorosis, and the Problems of Puberty*. London: Routledge.
- King, Helen. 2011. "Galen and the widow. Towards a history of therapeutic masturbation in ancient gynaecology." *EuGeStA: Journal on Gender Studies in Antiquity* 1: 205–234.
- King, Helen. 2013a. *The One-Sex Body on Trial: The Classical and Early Modern Evidence*. Farnham: Ashgate.
- King, Helen. 2013b. "Motherhood and health in the Hippocratic corpus: does maternity protect against disease?" *Mètis. Anthropologie des mondes grecs anciens* 11: 51–70.
- King, Helen. 2015. "Between Male and Female in Ancient Medicine." In *Bodies in Transition: Dissolving the Boundaries of Embodied Knowledge*. Edited by Dietrich Boschung, Alan Shapiro, and Frank Waschek. Stuttgart: Fink. Pages 249–263.
- King, Helen. 2018. "Women and doctors in ancient Greece." In *Reproduction: antiquity to the present day*. Edited by Nick Hopwood, Rebecca Flemming, and Lauren Kassell. Cambridge: Cambridge University Press. Pages 39–52.
- King, Helen. 2021. "Seeing the bigger picture: what is gynaecology for?/Ampliando o campo de visão: para que serve a ginecologia?." *Ágora. Estudos Clássicos em Debate* 23,1: 17–48.
- King, Helen, and Claudia Engelhofer. 2006. "Geburt." In *Der Neue Pauly*. Edited by Hubert Cancik, Helmuth Schneider (Antike), and Manfred Landfester (Rezeptions- und Wis-

- senschaftsgeschichte). Cited 23 May 2021. Online: http://dx.doi.org/10.1163/1574-9347_dnp_e420110
- Kipperwasser, Reuven. 2012. "Body of the Whore, Body of the Story and Metaphor of the Body." In *Introduction to Seder Qodashim: A Feminist Commentary on the Babylonian Talmud V*. Edited by Tal Ilan, Monika Brockhaus, and Tanja Hidde. Tübingen: Mohr Siebeck. Pages 305–319.
- Kipperwasser, Reuven. 2019. "'Three Partners in a Person': The Metamorphoses of a Tradition and the History of an Idea." *Irano-Judaica* 7: 393–437.
- Kipfer, Sara, and Silvia Schroer. 2015. "Der Körper als Gefäß. Eine Studie zur Visuellen Anthropologie des Alten Orients." *Lectio difficilior* 1.
- Kirshenblatt-Gimblett, Barbara. 2005. "The corporeal Turn." *The Jewish Quarterly Review* 95.3: 447–461.
- Klein, Michele. 1998–99. "Obstetrics in Jewish sources." *Koroth* 13: 171–188.
- Knight, Mary. 2001. "Curing Cut or Ritual Mutilation?: Some Remarks on the Practice of Female and Male Circumcision in Graeco-Roman Egypt." *Isis* 92.2: 317–338.
- Koller, Aaron. 2010. "Sex or power? The slandered bride." *Zeitschrift für altorientalische und biblische Rechtsgeschichte* 16: 279–296.
- Kolowski-Ostrow, Ann O., and Claire L. Lyons, eds. 1997. *Naked Truths: Women, Sexuality and Gender in Classical Art and Archaeology*. London: Routledge.
- Konstan, David. 1994. "Premarital Sex, Illegitimacy, and Male Anxiety in Menander and Athens." In *Athenian Identity and Civic Ideology*. Edited by Alan L. Boegehold and Adele Scafuro. Baltimore: Johns Hopkins University Press. Pages 217–235.
- Koren, Sharon F. 2011. *Forsaken. The Menstruant in Medieval Jewish Mysticism*. Waltham, MA: Brandeis University Press.
- Kosman, Aryeh. 2010. "Male and Female in Aristotle's Generation of Animals." In *Being, Nature, and Life in Aristotle: Essays in Honor of Allan Gotthelf*. Edited by James G. Lennox and Robert Bolton. Cambridge: Cambridge University Press. Pages 147–167.
- Kosmopoulou, Angeliki. 2001. "'Working Women': Female Professionals on Classical Attic Gravestones." *The Annual of the British School at Athens* 96: 281–319.
- Kottek, Samuel S. 1981. "Embryology in Talmudic and Midrashic Literature." *Journal of the History of Biology* 14.2: 299–315.
- Kottek, Samuel. 2010. "Amra li em: La transmission de la médecine populaire par les femmes dans le Talmud." *Revue des Etudes Juives* 169.3–4: 419–437.
- Kottek, Samuel. 2023. "Caesarean Section in the Talmud: A renewed examination of a Historical Enigma." (In this volume).
- Kottek, Samuel S., and Gerhard Baader. 2000. "Talmudic and Greco-Roman data on pregnancy: a renewed examination." In *From Athens to Jerusalem. Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel Kottek et al. Rotterdam: Erasmus Publishing. Pages 83–98.
- Kottek, Samuel, and Helena Paavilainen. 2015/16. "Embryology in the Works of Philo." *Korot* 23: 99–107.
- Kraemer, David. 1989. "Images of childhood and adolescence in talmudic literature." In *The Jewish Family; Metaphor and Memory*. Edited by David Kraemer. New York: Oxford University Press. Pages 65–80.
- Kraemer, David. 2013. "Adornment and gender in rabbinic Judaism." In *Envisioning Judaism. Studies in Honor of Peter Schäfer on the Occasion of his Seventieth Birthday*, Vol. I. Edited by Ra'anan S. Boustan et al. Tübingen: Mohr Siebeck. Pages 217–234.

- Kruse, Britta-Juliane. 2012. *Verborgene Heilkünste. Geschichte der Frauenmedizin im Spätmittelalter*. Berlin: De Gruyter.
- Kruse, Britta-Juliane. 2012. "Die Arznei ist Goldes wert". *Mittelalterliche Frauenrezepte*. Berlin: De Gruyter.
- Kudlien, Fridolf. 1965. "The seven cells of the uterus: the doctrine and its roots." *Bulletin of the History of Medicine* 39: 415–423.
- Kuefler, Matthew. 2001. *The Manly Eunuch. Masculinity, Gender Ambiguity, and Christian Theology in Late Antiquity*. Chicago: University of Chicago Press.
- Kulp, Joshua. 2006. "'Go enjoy your acquisition': virginity claims in rabbinic literature re-examined." *Hebrew Union College Annual* 77: 33–65.
- Laale, H. Willer. 1993. "Abortion in Greek Antiquity: Solon to Aristotle." *Classical and Modern Literature (CML)* 13: 157–166 and 191–302.
- Labovitz, Gail. 2000. "'These are the Labors': Constructions of the Woman Nursing Her Child in the Mishnah and Tosefta." *Nashim: A Journal of Jewish Women's Studies & Gender Issues* 3: 15–42.
- Labovitz, Gail. 2009. *Marriage and Metaphor: Constructions of Gender in Rabbinic Literature*. Lanham, MD: Lexington Books.
- Labovitz, Gail. 2014. "Rabbis and 'Guerrilla Girls' A Bavli Motif of the Female (Counter) Voice in the Rabbinic Legal System." *Women in Judaism: A Multidisciplinary E-Journal* 10.2. Online: <https://wjudaism.library.utoronto.ca/index.php/wjudaism/article/view/20906>.
- Laes, Christian. 2010. "The Educated Midwife in the Roman Empire. An example of differential equations." In *Hippocrates and Medical Education*. Edited by Manfred Horstmannshoff. Leiden: Brill. Pages 261–286.
- Laes, Christian. 2011. "Midwives in Greek Inscriptions in Hellenistic and Roman Antiquity." *Zeitschrift für Papyrologie und Epigraphik* 176: 154–162.
- Laes, Christian. 2014. "Infants between biological and social birth in Antiquity: a phenomenon for longue durée." *Historia. Journal of Ancient History* 63,3: 364–383.
- Laes, Christian, and Johan Strubbe. 2014. *Youth in the Roman Empire: The Young and the Restless Years?* Cambridge: Cambridge University Press.
- Lambert, Wilfred G. 2013. *Babylonian Creation Myths*. Winona Lake: Eisenbrauns.
- Lambert, Wilfred G., and Alan R. Millard. 1969. *Atra-Ḫasis. The Babylonian Story of the Flood*. Oxford: Clarendon Press.
- Landau, Ephraim (Froim). 2020. "Giving birth on someone's knees: the meaning of Genesis 30:3." *Jewish Bible Quarterly* 48,4: 211–229.
- Lange, Lydia. 1983. "Woman is not a Rational Animal: On Aristotle's Biology of Reproduction." In *Discovering Reality. Feminist Perspectives on Epistemology, Metaphysics, Methodology, and Philosophy of Science*. Edited by Sandra Harding and Merrill B. Hintikka. Dordrecht: Springer. Pages 1–15.
- Langer, Ruth. 1995. "The Birkat Betulim: A Study of the Jewish Celebration of Bridal Virginity." *Proceedings of the American Academy for Jewish Research* 61: 53–94.
- Langlands, Rebecca. 2002. "'Can You Tell What it is Yet?' Descriptions of Sex Change in Ancient Literature." *Ramus*, 31(1–2): 91–110.
- Langlands, Rebecca. 2006. *Sexual morality in ancient Rome*. Cambridge: Cambridge University Press.
- Laqueur, Thomas. 1990. *Making Sex: Body and Gender from the Greeks to Freud*. Cambridge, MA: Harvard University Press.

- Laribi-Glaudiel, Sophie. 2014. "Une lecture anthropologiques des rites de naissance mésopotamiens." *Life, Death, and Coming of Age in Antiquity: Individual Rites of Passage in the Ancient Near East and Adjacent Regions*. Edited by Alice Mouton and Julie Patrier. Leiden: Nederlands Instituut voor het Nabije Oosten. Pages 211–230.
- Laskaris, Julie. 2008. "Nursing Mothers in Greek and Roman Medicine." *American Journal of Archaeology* 112,3: 459–464.
- Latham, Jacob. 2012. "'Fabulous Clap-Trap': Roman Masculinity, the Cult of Magna Mater, and Literary Constructions of the Galli at Rome from the Late Republic to Late Antiquity." *The Journal of Religion* 92,1: 84–122.
- LaValle, Dawn. 2015. "Divine Breastfeeding: Milk, Blood, and Pneuma in Clement of Alexandria's Paedagogus." *Journal of Late Antiquity* 8,2: 322–336.
- LaValle, Dawn. 2019. "Becoming Female: Marrowy Semen and the Formative Mother in Methodius of Olympus's Symposium." *Journal of Early Christian Studies* 27,2: 185–209.
- Lawrence, Jonathan David. 2006. *Washing in Water: Trajectories of Ritual Bathing in the Hebrew Bible and Second Temple Literature*. Atlanta: Society of Biblical Literature.
- Lawrence, Thea. 2021. "Breastmilk, breastfeeding, and the female body in early Imperial Rome." In *Bodily Fluids in Antiquity*. Edited By Mark Bradley, Victoria Leonard, and Laurence Totelin. London: Routledge. Pages 224–239.
- Lefkowitz, Mary R. 1981. "The Wandering Womb." In Mary R. Lefkowitz. *Heroines and Hysterics*. New York: St. Martin's Press. Pages 12–25.
- Lefkowitz, Mary R., and Maureen B. Fant, eds. 1982. *Women's Life in Greece and Rome*. London: Duckworth.
- Leick, Gwendolyn. 1994. *Sex and Eroticism in Mesopotamian Literature*. London: Routledge.
- Lefebvre, David. 2016. "Le sperma: forme, matière ou les deux? Aristote critique de la double semence." *Philosophie Antique* 16: 31–62.
- Lehmhaus, Lennart. 2017a. "Beyond Dreckapotheke, Between Facts and Feces: Talmudic Recipes and Therapies in Context." In *Collecting Recipes. Byzantine and Jewish Pharmacology in Dialogue*. Edited by Lennart Lehmhaus and Matteo Martelli. Berlin: De Gruyter. Pages 221–254.
- Lehmhaus, Lennart. 2017b. "'Curiosity Cures the Reb': Studying Talmudic Medical Discourses in Context." *Ancient Jew Review*. 11 October 2017. Online: <http://www.ancientjewreview.com/articles/2017/10/2/curiosity-cures-the-reb-studying-talmudic-medical-discourses-in-context>
- Lehmhaus, Lennart. 2019. "Bodies of Texts, Bodies of Tradition – medical expertise and knowledge of the body among rabbinic Jews in Late Antiquity." In *Finding, Inheriting or Borrowing? Construction and Transfer of Knowledge about Man and Nature in Antiquity and the Middle Ages*. Edited by Tanja Pommerening, Jochen Althoff, Dominik Berrens. Bielefeld: transcript. Pages 123–166.
- Lehmhaus, Lennart. 2021. "Medical knowledge in premodern Jewish cultures and traditions – a select bibliography." In *Defining Jewish Medicine. Transfer of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 57–89.
- Lehmhaus, Lennart. 2022a. "Lore and Order? – Rabbinic Lists and Epistemology." In *Forms of List-Making: Epistemic, Literary, and Visual Enumeration*. Edited by Anne Rügge-meier et al. New York: Palgrave Macmillan. Pages 53–80.
- Lehmhaus, Lennart. 2022b. "Re-reading Gynaecology in the Ancient World – a Transcultural and Interdisciplinary Survey." (in this volume). Pages ♦

- Lennon, Jack. 2010. "Menstrual Blood in Ancient Rome: An Unspeakable Impurity?" *Classica et Mediaevalia* 61: 71–87.
- Lennox, James G. 2021. "Most natural among the functions of living things. Puzzles about reproduction as a nutritive function." In *Nutrition and nutritive soul in Aristotle and Aristotelianism*. Edited by Giouli Korobili and Roberto Lo Presti. Berlin: De Gruyter. Pages 3–20.
- Leong, Elaine. 2018. *Recipes and Everyday Knowledge: Medicine, Science, and the Household in Early Modern England*. Chicago: University of Chicago Press.
- Lepicard, Etienne. 2010. "The Embryo in Ancient Rabbinic Literature: Between Religious Law and Didactic Narratives: An Interpretive Essay." *History and Philosophy of the Life Sciences* 32,1: 21–41.
- Lesses, Rebecca. 2001. "Exe(o)rcising Power: Women as Sorceresses, Exorcists, and Demoneses in Babylonian Jewish Society of Late Antiquity." *Journal of the American Academy of Religion* 69,2: 343–375.
- Létoublon, Françoise, and Jean Alaux. 2001. "La nourrice et le pédagogue." In *Les Personnages du roman grec*. Lyon: Maison de l'Orient et de la Méditerranée Jean Pouilloux. Pages 73–86.
- Lev, Sarra. 2004. "Genital Trouble: The Figure of the Eunuch in Rabbinical Literature and the Surrounding Cultures of the Period." PhD dissertation, New York University.
- Lev, Sarra. 2007. "How the 'aylonit' got her sex." *AJS Review* 31,2: 297–316.
- Lev, Sarra. 2010. "They treat him as a man and see him as a woman: the tannaitic understanding of congenital eunuch." *Jewish Studies Quarterly* 17,3: 213–243.
- Lev, Sarra. 2016. "The Talmud: A Tale of Two Bodies." In *Patriarchal Moments: Reading Patriarchal Texts*. Edited by Cesare Cuttica and Gaby Mahlberg. Lodnon: Bloomsbury. Pages 19–26.
- Lev, Sarra. 2017. "Dipping Finger in Honey: Sense Making in the Face of Violent Texts." In *Sexual Violence and Sacred Texts*. Edited by Amy Kalmanofsky. Pages 53–74.
- Lev, Sarra. 2018. "The Rabbinic 'Androgynos' as the 'Sometimes Jew': investigating a model of Jewishness." *Journal of Jewish Identities* 11,1: 75–85.
- Lev, Sarra. 2021. "A creation sui generis: the evolution of a concept." In *From Scrolls to Traditions; a Festschrift Honoring Lawrence H. Schiffman*. Edited by Stuart S. Miller, Michael D. Swartz, Steven Fine, Naomi Grunhaus, Alex P. Jassen. Leiden; Boston: Brill. Pages 325–349.
- Levine, Baruch. 2002. "'Seed' versus 'Womb': Expressions of Male Dominance in Biblical Israel." In *Sex and Gender in the Ancient Near East*. Edited by Simo Parpola and R. M. Whiting. Helsinki: Neo-Assyrian Text Corpus Project. Pages 337–344.
- Levinson, Joshua. 2000. "Bodies and Bo(a)rders: Emerging Fictions of Identity in Late Antiquity." *Harvard Theological Review* 93,4: 343–372.
- Li Causi, Pietro. 2005. "Generazione di ibridi, generazione di donne. Costruzioni dell'umano in Aristotele e Galeno (e Palefato)." *Storia delle donne* 1: 89–114.
- LiDonnici, Lynn R. 1992. "The Images of Artemis Ephesia and Greco-Roman Worship: A Reconsideration." *The Harvard Theological Review* 85,4: 389–415.
- Lieber, Elinor. 2022. "The Hippocratic 'Airs, Waters, Places' on Cross-Dressing Eunuchs: 'Natural' yet also 'Divine'?" In *Sex and Difference in Ancient Greece and Rome*. Edited by Mark Golden and Peter Toohey. Edinburgh: Edinburgh University Press. Pages 351–369.
- Lienau, Cay. 1971. "Die Behandlung und Erwähnung von Superfetation in der Antike." *Clio medica* 6: 275–285.

- Lightfoot, Jane L. 2002. "Sacred Eunuchism in the Cult of the Syrian Goddess. In *Eunuchs in Antiquity and Beyond*. Edited by Shaun Tougher. Swansea/London: The Classical Press of Wales/Duckworth. Pages 71–86.
- Lillis, Julia L. Kelto. 2016. "Paradox in Partu: Verifying Virginity in the *Protevangelium of James*." *Journal of Early Christian Studies* 24,1: 1–28.
- Lillis, Julia L. Kelto. 2017a. "Virgin Territory: Configuring Female Virginity in Early Christianity." PhD Dissertation, Duke University, Durham, North Carolina.
- Lillis, Julia L. Kelto. 2017b. "Who Opens the Womb? Fertility and Virginity in Patristic Texts." *Studia Patristica* 81: 187–202.
- Lillis, Julia L. Kelto. 2020. "No Hymen Required: Reconstructing Origen's View on Mary's Virginity." *Church History* 89,2: 1–19.
- Lillis, Julia L. Kelto. 2022. *Virgin Territory: Configuring Female Virginity in Early Christianity*. Oakland: University of California Press.
- Lillis, Julia L. Kelto. 2023. "Late ancient Christians and the rise of medically perceptible virginity." (In this volume).
- Lion, Brigitte. 2018. "Gender and Methodology in the Study of 2nd Millennium B. C. E. Family Archives." *Studying Gender in the Ancient Near East*. Edited by Saana Svärd and Agnès Garcia-Ventura. University Park, PA: Eisenbrauns. Pages 233–248.
- Lipka, Hilary. 2018. "The Prohibition of Cross-Dressing." *TheTorah.com*. Online: <https://thetorah.com/article/the-prohibition-of-cross-dressing>
- Lloyd, G. E. R. 1983. "The Female Sex: Medical Treatment and Biological Theories in the Fifth and Fourth Centuries B. C." In *Science, Folklore, and Ideology: Studies in the Life Sciences in Ancient Greece*. Edited by G. E. R. Lloyd. Cambridge: Cambridge University Press. Pages 86–94.
- Locher, Clemens. 1986. *Die Ehre einer Frau in Israel. Exegetische und rechtsvergleichende Studien zu Deuteronomium 22,13–21*. Fribourg: Universitätsverlag.
- Lonie, I. M. 1981. *The Hippocratic treatises "On generation", "On the nature of child", "Diseases IV"*. Berlin: De Gruyter.
- Lopez Ferez, Juan Antonio. 2012. "El semen femenino en Galeno." In *Imaginarios científicos. Conocimiento, narraciones y utopías*. Edited by Paula Olmos and Federica Pezzoli. Madrid: Ediciones clásicas. Pages 41–82.
- Lopez Salva, Mercedes. 2010. *Ginecología y patología sexual femenina en las Colecciones Médicas de Oribasio*. Oxford: Archaeopress.
- Lo Presti, Roberto. 2014. "Informing Matter and Enmattered Forms: Aristotle and Galen on the 'Power' of the Seed." *British Journal for the History of Philosophy* 22: 920–950.
- Luccioni, Pascal. 2009. "Aspasie: une gynécologue d'époque impériale?." *Eruditio Antiqua* 1: 15–43.
- Luttikhuisen, Gerard P. 2000. *The Creation of Man and Woman: Interpretations of the Biblical Narratives in Jewish and Christian Traditions*. Leiden: Brill.
- Macdonald, Dennis R. 1988. "Corinthian Veils and Gnostic Androgynes." In *Images of the Feminine in Gnosticism*. Edited by Karen L. King. Philadelphia: Fortress. Pages 276–292.
- MacLachlan, Bonnie and Judith Fletcher, eds. 2007. *Virginity Revisited: Configurations of the Unpossessed Body*. Toronto: Toronto University Press.
- MacLachlan, Bonnie. 2012. *Women in Ancient Greece: A Sourcebook*. London: Bloomsbury.
- MacLachlan, Bonnie. 2013. *Women in Ancient Rome: A Sourcebook*. London: Bloomsbury.
- Maire, Brigitte. 2004a. "L'imprégnation par le regard ou l'influence des "simulacres" sur l'embryon." In *Mirabilia. Conceptions et représentations de l'extraordinaire dans le monde antique*. Edited by Olivier Bianchi and Olivier Thévenaz. Bern: Peter Lang. Pages 279–294.

- Maire, Brigitte. 2004b. "Gynaecia Muscionis: réincarnation des Gunaikaia de Soranos ou naissance d'un traité?" In *Naissance et petite enfance dans l'Antiquité*. Edited by Véronique Dasen. Fribourg Academic Press; Göttingen: Vandenhoeck&Ruprecht. Pages 317–323.
- Maire, Brigitte. 2007. "Conceptio, retentio et cotylédons ou quelques aspects de la vie intra-utérine." In *L'embryon humain à travers l'histoire. Images, savoirs et rites*. Edited by Véronique Dasen. Gollion: Infolio. Pages 207–222.
- Makujina, John. 2016. "Male Obstetric Competence in Ancient Israel: A Response to Two Recent Proposals." *Vetus Testamentum* 66,1: 78–94.
- Makujina, John. 2017. "'Behold there were twins in her womb' (Gen. 25:24–26; 38:27–30): medical science and the twin births in Genesis." *Tyndale Bulletin* 68,1: 39–58.
- Malkiel David. 2006. "Manipulating Virginity: Digital Defloration in Midrash and History." *Jewish Studies Quarterly* 13: 105–127.
- Manniche, Lise. 2006. "In the womb." *The Bulletin of the Australian centre for Egyptology* 17: 97–112.
- Manuli, Paola. 1980. "Fisiologia e patologia del femminile negli scritti ippocratici dell'antica ginecologia greca." In *Hippocratica. Actes du Colloque hippocratique de Paris, 4–9 septembre 1978*. Edited by Mirko D. Grmek. Paris: Éditions du Centre national de la recherche scientifique. Pages 393–408.
- Manuli Paola. 1983. "Donne maschiline, femmine sterili, vergini perpetue: la ginecologia greca tra Ippocrate e Sorano." In *Madre materia. Sociologia e biologia della donna greca*. Edited by Silvia Campese, Paola Manuli, and Giulia Sissa. Turin: Boringhieri. Pages 149–204.
- Marchetti, Francesca. 2019. "Educating the midwife: the role of illustrations in late antique and medieval obstetrical texts." In *Pregnancy and Childbirth in the Premodern World: European and Middle Eastern Cultures, from Late Antiquity to the Renaissance*. Edited by Costanza G. Dopfel, Alessandra Foscati, and Charles Burnett. Turnhout: Brepols. Pages 3–28.
- Marienberg, Evyatar. 2012. *La Baraita de-Niddah. Un texte juif pseudo-talmudique sur les lois religieuses relatives à la menstruation. Étude et traduction française*. Turnhout: Brepols.
- Marshall, Amandine. 2015. *Maternité et petite enfance en Egypte ancienne*. Monaco: Le Rocher.
- Marshall, James C. 2017. "Breastfeeding in Greek Literature and Thought." *Illinois Classical Studies* 42,1: 185–201.
- Marx-Wolf, Heidi. 2018. "Living Plants, Dead Animals, and Other Matters: Embryos and Demons in Porphyry of Tyre." *Preternature: Critical and Historical Studies on the Preternatural* 7,1: 1–26.
- Matuszak, Jana. 2016. "'She is not fit for womanhood: the ideal housewife according to Sumerian literary texts.'" In *The Role of Women in Work and Society in the Ancient Near East*. Edited by Brigitte Lion and Cecile Michel. Berlin: De Gruyter: 228–254.
- Matuszak, Jana. 2021. *"Und du, du bist eine Frau?!" Editio princeps und Analyse des sumerischen Streitgesprächs 'Zwei Frauen B'*. Berlin: De Gruyter.
- Maul, Stefan M. 1992. "kurgarrû und assinnu und ihr Stand in der babylonischen Gesellschaft." In *Außenseiter und Randgruppen. Beiträge zu einer Sozialgeschichte des Alten Orients*. Edited by Volkert Haas. Konstanz: Universitätsverlag. Pages 159–171.
- Mayhew, Robert. 2004 *The female in Aristotle's Biology: reason or rationalization*. Chicago: The University of Chicago Press.

- Mazuz, Haggai. 2012. "Qur'anic commentators on Jewish and Zoroastrian approaches to menstruation." *Review of Rabbinic Judaism – Ancient, Medieval, and Modern* 15,1: 89–98.
- Mazuz, Haggai. 2014. "Islamic and Jewish law on the colors of menstrual blood." *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 164,1: 97–106.
- McAuley, Mairéad. 2016. *Reproducing Rome: Motherhood in Virgil, Ovid, Seneca, and Statius*. Oxford: Oxford University Press.
- McClure, Laura K., ed. 2002. *Sexuality and Gender in the Classical World: Readings and Sources*. Oxford: Blackwell.
- McClure, Laura K. 2020. *Women in Classical Antiquity: From Birth to Death*. Hoboken, NJ: Wiley Blackwell.
- McGeough, Kevin. 2006. "Birth Bricks, Potter's Wheels, and Exodus 1,16." *Biblica* 87,3: 305–318.
- McNamara, Leanne. 2016. "Hippocratic and Non-Hippocratic Approaches to Lovesickness." In *Ancient Concepts of the Hippocratic*. Edited by Lesley Dean-Jones and Ralph M. Rosen. Leiden: Brill. Pages 308–327.
- McNeel, Jennifer H. 2014. *Paul as Infant and Nursing Mother. Metaphor, Rhetoric, and Identity in 1 Thessalonians 2:5–8*. Atlanta: SBL Press.
- Meacham, Tirzah. 1989. *Mishnah Tractate Niddah with Introduction – A Critical Edition with Notes on Variants, Commentary, Redaction and Chapters in Legal History and Realia*. Ph.D. diss., The Hebrew University of Jerusalem.
- Meacham, Tirzah. 1995. "Dam Himud – Blood of Desire." *Koroth* 11: 82–89.
- Meacham, Tirzah. 1999a. "An Abbreviated History of the Development of the Jewish Menstrual Laws." In *Women and Water: Menstruation in Jewish Life and Law*. Edited by Rahel R. Wasserfall. Hanover: University Press of New England. Pages 23–39.
- Meacham, Tirzah. 1999b. "The Elimination of Niddah in Favor of Ziva." In *Women and Water: Menstruation in Jewish Life and Law*. Edited by Rahel R. Wasserfall. Hanover: University Press of New England. Pages, 255–256.
- Meacham, Tirzah. 2000. "Halakhic Limitations on the Use of Slaves in Medical Examinations." In *From Athens to Jerusalem. Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel Kottke et al. Rotterdam: Erasmus Publishing. Pages 33–48.
- Meacham, Tirzah. 2021. "Physicians' Expertise and Halakha: On Whom Did the Sages Rely?" In *Defining Jewish Medicine. Transfer of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 193–213.
- Meacham, Tirzah. 2023. "Reality or Theoretical Discussion: Pre-Menarchal Pregnancy, Superfetation, and Pregnancy during Lactation in Rabbinic Literature." (In this volume).
- Meeks, Wayne A. 1974. "The Image of the Androgyne: Some Uses of a Symbol in Earliest Christianity." *History of Religions* 13,3: 165–208.
- Miller, Patricia C. 2005. *Women in Early Christianity. Translations from Greek Texts*. Washington D.C.: Catholic University of America Press.
- Minen, Francesca. 2018. "Discendenza, gravidanza e nascita nella Mesopotamia antica: I testi ostetrico-ginecologici." *La medicina assio-babilonese*. Edited by Frederick Mario Fales, in collaboration with Francesca Minen. Rome: Scienze e lettere. Pages 167–203.
- Minen, Francesca. 2020. "Engendering Health, Royal Heirs. Some Notes on the Rationale behind the 'Female' Sub-series in *Alamdimmû* and *Sakikkû*." *Le Journal des Médecines Cunéiformes* 36: 10–22.
- Montserrat, Dominic. 1963. *Sex and Society in Græco-Roman Egypt*. London: Kegan Paul.

- Morgenstern, Matthias, trans., 2006. *Nidda – Die Menstruierende, Übersetzung des Talmud Yerushalmi VI/1*. Tübingen: Mohr Siebeck.
- Moss, Candida R., and Joel S. Baden. 2015. *Reconceiving Infertility: Biblical Perspectives on Procreation and Childlessness*. Princeton: Princeton University Press.
- Mouton, Alice. 2008. *Les rituels de naissance kizzuwatniens: un exemple de rite de passage en Anatolie hittite*. Paris: De Boccard.
- Münz-Manor, Ophir. 2017. *Gender and sexuality in rabbinic culture (Migdar ve-miniyut be-tarbut hazal)*. Ra'anana: The Open University of Israel Press. (Hebrew)
- Mulder, Tara. 2017. "Adult Breastfeeding in Ancient Rome." *Illinois Classical Studies* 42,1: 227–243.
- Mulder, Tara. 2021. "Flabby flesh and foetal formation: body fluidity and foetal sex differentiation in ancient Greek medicine." In *Bodily fluids in Antiquity*. Edited by Mark Bardley, Victoria Leonard, and Laurence Totelin. New York: Routledge. Pages 145–157.
- Mulder-Bakker, Anneke B., and Jocelyn Wogan-Browne, eds. 2005. *Household, Women, and Christianities: in Late Antiquity and the Middle Ages*. Turnhout: Brepols.
- Murray, Michele. 2007. "The Magical Female in Graeco-Roman Rabbinic Literature." *Religion & Theology* 14: 284–309.
- Musgrove, Caroline. 2017a. "Debating Virginity in the Late Alexandrian School of Medicine." *Studia Patristica* 81: 203–216.
- Musgrove, Caroline. 2017b. "Oribasius' Woman: Medicine, Christianity and Society in Late Antiquity." PhD dissertation, Queen's College, University of Cambridge.
- Myers, Alicia D. 2017. *Blessed Among Women? Mothers and Motherhood in the New Testament*. Oxford: Oxford University Press.
- Neils, Jenifer, and John H. Oakley, eds. 2003. *Coming of Age in Ancient Greece: Images of Childhood from the Classical Past*. New Haven, CT: Yale University Press.
- Neis, Rafael Rachel. 2017. "The Reproduction of Species: Humans, Animals and Species Nonconformity in Early Rabbinic Science." *Jewish Studies Quarterly* 24,4: 434–451.
- Neis, Rafael Rachel. 2019. "Fetus, Flesh, Food: Generating Bodies of Knowledge in Rabbinic Science." *Journal of Ancient Judaism* 10,2: 181–210.
- Nickel, Diethard. 1989. *Untersuchungen zur Embryologie Galens*. Berlin: Akademie-Verlag.
- Nikolaidis, Anastasios G. 1997. "Plutarch on Women and Marriage." *Wiener Studien* 110: 27–88.
- Noort, Ed. 2000. "The Creation of Man and Woman in Biblical and Ancient Near Eastern Traditions." In *The Creation of Man and Woman: Interpretations of the Biblical Narratives in Jewish and Christian Traditions*. Edited by Gerard P. Luttikhuisen. Leiden: Brill. Pages 1–18.
- Novick, Tzvi. 2014. "Mother and Child: Postpartum Defilement and Circumcision." *The-Torah.com*. Cited 26 July 2021. Online: <https://thetorah.com/article/mother-and-child-postpartum-defilement-and-circumcision>
- Nugent, Georgia. 1990. "This Sex Which Is Not One: De-Constructing Ovid's Hermaphrodite." *Differences* 2,1: 160–185.
- Nurka, Camille. 2018. *Female Genital Cosmetic Surgery. Deviance, Desire and the Pursuit of Perfection*. Cham: Palgrave Macmillan.
- Nussbaum, Martha C., and Juha Sihvola, eds. 2002. *The Sleep of Reason. Erotic Experience and Sexual Ethics in Ancient Greece and Rome*. Chicago: University of Chicago Press.
- Nyord, Rune. 2009. *Breathing flesh: conceptions of the body in the ancient Egyptian Coffin Texts*. Copenhagen: Museum Tusculanum Press.

- Oberhelman, Steve M. 2014. "Anatomical votive reliefs as evidence for specialization at healing sanctuaries in the ancient Mediterranean world." *Athens Journal of Health* 1,1: 47–62. (<https://doi.org/10.30958/ajh.1-1-4>)
- Ogden, Daniel. 1997. "Rape, Adultery and the Protection of Bloodlines in Classical Athens." In *Rape in Antiquity: Sexual violence in the Greek and Roman worlds*. Edited by S. Deacy and K. F. Pierce. London: Duckworth. Pages 25–41.
- Olyan, Saul. 2019. "Gender-Specific Pollution in the Hebrew Bible." In *Gender and Social Norms in Ancient Israel, Early Judaism and Early Christianity*. Edited by Michael Bauks, Katharina Galor, and Judith Hartenstein. Göttingen: Vandenhoeck & Ruprecht. Pages 159–168.
- Ormand, Kirk. 2009. *Controlling Desires: Sexuality in Ancient Greece and Rome*. Westport: Praeger.
- Pagnotta, Fausto. 2022. "Aristotele e il corpo della donna: rappresentazioni tra bios ed ethos alle origini delle discriminazioni di genere." In *La trasmissione del sapere medico: linguaggi e idee dai papiri ad oggi*. Edited by Alessia Bovo. Parma: Artegrafica Silva Editore. Pages 188–209.
- Panella, Robert J. 2013. "Cross-Dressing as a Declamatory Theme in Choricus of Gaza." *Hermes* 141,2: 241–243.
- Panidis, Yiannis. 2021a. *Children and Women in Graeco-Roman Antiquity: a Bibliography (11,385 entries, 784 pp.)*. Cited 13 March 2022. Online: https://www.academia.edu/40395066/CHILDREN_AND_WOMEN_IN_GRAECO_ROMAN_ANTIQUITY_A_BIBLIOGRAPHY_LENfant_ET_LES_FEMMES_AU_COURS_DE_L_ANTIQUITE%3%89_GR%3%89CO_ROMAINE_BIBLIOGRAPHIE_11_385_entries_784_pp_by_Yiannis_Panidis
- Panidis, Yiannis. 2021b. *Gynecology, Obstetrics, Embryology, and Childbirth in Graeco-Roman Antiquity: A Selected Bibliography (3rd edition, 1410 entries, 100 pp.)*. Cited 13 March 2022. Online: https://www.academia.edu/62714575/GYNECOLOGY_OBSTETRICS_EMBRYOLOGY_AND_CHILDBIRTH_IN_GRAECO_ROMAN_ANTIQUITY_A_SELECTED_BIBLIOGRAPHY_GYN%3%89COLOGIE_OBST%3%89TRIQUE_EMBRYOLOGIE_ET_ACCOUCHEMENT_AU_COURS_DE_L_ANTIQUITE%3%89_GR%3%89CO_ROMAINE_BIBLIOGRAPHIE_S%3%89LECTIVE_3rd_edition_1410_entries_100_pp_by_Yiannis_Panidis
- Panidis, Yiannis. 2022. *Women in the Ancient World: An Extended Bibliography, A new 2nd edition*. Toulouse: Independent Edition. Cited 13 June 2022. Online: https://www.academia.edu/80576874/Y_Panidis_2022_Women_in_the_Ancient_World_An_Extended_Bibliography_A_new_2nd_edition_Toulouse_Independent_Edition_811_pp
- Parca, Marylin. 2017. "The Wet Nurses of Ptolemaic and Roman Egypt." *Illinois Classical Studies* 42,1: 203–226.
- Pedrucci, Giulia. 2016. "Breastfeeding Animals and Other Wild "Nurses" in Greek and Roman Mythology." *Gerión* 34: 307–323.
- Pedrucci, Giulia, ed. 2019a. *Breastfeeding(s) and religions: normative prescriptions and individual appropriation of them. A cross-cultural and interdisciplinary perspective from Antiquity to the Present*. Rome: Scienze e Lettere.
- Pedrucci, Giulia. 2019b. "Breastfeeding 'in Couple': Possible Interpretations of Some Votive Statuettes of a Breastfeeding Woman with a Man and of Two Breastfeeding Women from Ancient Latium and Southern Etruria." In *Breastfeeding(s) and Religions: Normative Prescriptions and Individual Appropriation of Them. A cross-cultural and Interdis-*

- ciplinary Perspective from Antiquity to the Present*. Edited by Giulia Pedrucci. Rome: Scienze e Lettere. Pages 97–124.
- Pedrucci, Giulia. 2020a. “Mothers for Sale: The case of the Wet Nurse in the Ancient Greek and Roman World. An overview.” *ARENAL* 27,1: 127–140.
- Pedrucci, Giulia, ed. 2020b. *Mothering(s) and Religions: Normative Perspectives and Individual Appropriations. A Cross-Cultural and Interdisciplinary Approach from Antiquity to the Present*. Rome: Scienze e Lettere.
- Pedrucci, Giulia. 2020c. “On the use of human milk and menstrual blood between medicine and magic in the Greek and Roman worlds.” In *Ancient magic: then and now*. Edited by Attilio Mastrocinque, Joseph E. Sanzo, and Marianna Scapini. Stuttgart: Franz Steiner. Pages 287–302.
- Pedrucci, Giulia. 2020d. “Kourotrophia and “Mothering” Figures: Conceiving and Raising an Infant as a Collective Process in the Greek, Etruscan, and Roman Worlds. Some Religious Evidences in Narratives and Art.” *Open Theology* 6,1: 145–166.
- Pedrucci, Giulia, ed. 2020e. *Pregnancies, childbirths, and religions: rituals, normative perspectives, and individual appropriations: a cross-cultural and interdisciplinary perspective from antiquity to the present*. Rome: Scienze e Lettere.
- Pedrucci, Giulia, and Florentine Pasche-Guignard, eds. 2017. *Motherhood(s) and polytheisms*. Bologna: Pàtron.
- Peled, Ilan. 2016. *Masculinities and Third Gender. The Origins and Nature of an Institutionalized Gender Otherness in the Ancient Near East*. Münster: Ugarit-Verlag.
- Peled, Ilan. 2018. “Identifying Gender Ambiguity in Texts and Artifacts.” *Studying Gender in the Ancient Near East*. Edited by Saana Svärd and Agnès Garcia-Ventura. University Park, PA: Eisenbrauns. Pages 55–63.
- Penniman, John D. 2015. “Fed to Perfection: Mother’s Milk, Roman Family Values, and the Transformation of the Soul in Gregory of Nyssa.” *Church History* 84,3: 1–36.
- Penniman, John D. 2017. *Raised on Christian Milk: Food and the Formation of the Soul in Early Christianity*. New Haven: Yale University Press.
- Pepe, Laura. 2012. “Pregnancy and childbirth, or the right of the father. Some reflections about motherhood and fatherhood in ancient Greece.” *Rivista di diritto ellenico* 2: 255–274.
- Perdicoyianni-Paleologou, Hélène, ed. 2020. *History of the breast: A cross-cultural and interdisciplinary approach*. Thematic Issue of *Medicina nei Secoli. Journal of History of Medicine and Medical Humanities* 32,3.
- Perea Yébenes, Sabino. 2007. “Exvotos sexuales. Una aproximación a la medicina religiosa antigua a través de la epigrafía griega.” In *Erotica antiqua. Sexualidad y erotismo en Grecia y Roma*. Edited by Sabino Perea Yébenes. Madrid: Signifer. Pages 121–150.
- Peskowitz, Miriam. 1997. *Spinning Fantasies: Rabbis, Gender, and History*. Berkeley: University of California Press.
- Philip, Tarja S. 2006. *Menstruation and Childbirth in the Bible: Fertility and Impurity*. New York: Peter Lang.
- Pinault, Jody R. 1992. “The Medical Case for Virginity in the Early Second Century C. E.: Soranus of Ephesus, Gynecology 1.32.” *Helios* 19: 123–139.
- Pinault, Jody R. 1993. “Women, Fat, and Fertility: Hippocratic Theorizing and Treatment.” In *Woman’s Power, Man’s Game. Essays on Classical Antiquity in Honor of Joy King*. Edited by Mary M. DeForest. Wauconda, IL: Bolchazy-Carducci. Pages 78–90.
- Pinheiro, Cristina. 2017. “The ancient medical texts in the chapters about infertility of Rodrigo de Castro’s *De Vniuersa Mulierum Medicina*.” In *The Palgrave Handbook of infer-*

- tility in history: approaches, contexts and perspectives. Edited by Gayle Davis and Tracey Loughran. London: Palgrave MacMillan. Pages 291–310.
- Playoust, Catherine, and Ellen B. Aitken. 2009. "The leaping child: imagining the unborn in Early Christian literature." In *Imagining the fetus: the unborn in myth, religion and culture*. Edited by Vanessa R. Sasson and Jane Marie Law. Oxford: Oxford University Press. Pages 157–184.
- Polonsky, Janice. 2006. "The Mesopotamian Conceptualization of Birth and the Determination of Destiny at Sunrise." In *If a Man Builds a Joyful House: Assyriological Studies in Honor of Erle Verdun Leichty*. Edited by Ann K. Guinan et al. Leiden: Brill. Pages 297–311.
- Pommerening, Tanja. 2023. "The Female Body in Ancient Egypt: Sources, Terminology, and Concepts." (In this volume).
- Porter, Amber J. 2016. "Compassion in Soranus' Gynecology and Caelius Aurelianus' On Chronic Diseases." In *Homo Patiens – Approaches to the Patient in the Ancient World*. Edited by Georgia Petridou, and Chiara Thumiger. Leiden: Brill. Pages 285–303.
- Porter, James I., ed. 1999. *Constructions of the Classical Body*. Ann Arbor: University of Michigan Press.
- Pouderon, Bernard. 2005. "La notice d'Hippolyte sur Simon: cosmologie, anthropologie et embryologie." In *Les Pères de l'Église face à la science médicale de leurs temps*. Edited by Véronique Boudon-Millot and Bernard Pouderon. Paris: Beauchesne Éditeur. Pages 49–72.
- Praet, Raf. 2021a. "John Lydus, Helvius Vindicianus, and the circulation of Latin gynaecological texts in sixth-century Constantinople." *After Constantine. Stories from the Late Antique and Early Byzantine* 1: 35–54.
- Praet, Raf. 2021b. "From the womb to the page: gynaecology and history in John of Lydia (Do útero para a página: ginecologia e história em John Lydus)." *Ágora. Estudos Clássicos em Debate* 23,1: 91–115.
- Preus, A. 1977. "Galen's criticism of Aristotle's conception theory." *Journal of the History of Biology* 10,1: 65–85.
- Preus, A. 1983. "Aristotle and Hippocratic gynecology." In *Aristoteles als Wissenschaftstheoretiker*. Edited by Johannes Irmscher and Reimar Müller. Berlin: Akademie Verlag. Pages 183–196.
- Preuss, Julius. 1911. *Biblisch-talmudische Medizin. Beiträge zur Geschichte der Heilkunde und der Kultur überhaupt*. Berlin: S. Karger.
- Preuss, Julius. 2004. *Biblical and Talmudic Medicine*. Translated and edited by Fred Rosner. Lanham, MD: Rowman and Littlefield.
- Quick, Laura. 2021. "Bitenosh's Orgasm, Galen's Two Seeds and Conception Theory in the Hebrew Bible." *Dead Sea Discoveries* 28,1: 38–63.
- Rabinowitz, Nancy Sorkin, and Lisa Auanger, eds. 2002. *Among Women: From the Homo-social to the Homoerotic in the Ancient World*. Austin: University of Texas Press.
- Rabinowitz, Nancy S., and Amy Richlin, eds. 1993. *Feminist Theory and the Classics. Thinking gender*. London: Routledge.
- Radner, Karen. 1997. *Die neuassyrischen Privatrechtsurkunden als Quelle für Mensch und Umwelt*. Helsinki: Neo-Assyrian Text Corpus Project.
- Rahbari, Ladan. 2020. "Milk Kinship and the Maternal Body in Shi'a Islam." *Open Theology* 6,1: 43–53.
- Ramsby, Teresa. 2007. "Gender, Sex, and the Domestication of the Empire in Art of the Augustan Age." *Arethusa* 40,1: 43–71.

- Rashed, Marwan. 2019. "A latent difficulty in Aristotle's theory of semen: the homogeneous nature of semen and the role of the frothy bubble." In *Aristotle's Generation of animals. A critical guide*. Edited by Andrea Falcon and David Lefebvre. Cambridge: Cambridge University Press. Pages 108–129.
- Raveh, Inbar. 2014. *Feminist Rereadings of Rabbinic Literature*. Waltham: Brandeis University Press.
- Reilly, Joan. 1997. "Naked and Limbless: Learning about the Feminine Body in Ancient Athens." In *Naked Truths: Women, Sexuality and Gender in Classical Art and Archaeology*. Edited by Ann O. Koloski-Ostrow and Claire L. Lyons. London: Routledge. Pages 154–173.
- Reiner, Erica. 1982. "Babylonian Birth Prognoses." *Zeitschrift für Assyriologie und vorderasiatische Archäologie* 72: 124–138.
- Ricciardetto, Antonio, and Danielle Gourevitch. 2020. "The cost of a baby: how much did it cost to hire a wet-nurse in Roman Egypt?" In *Ancient Medicine and the Markets: Essays in Honour of Vivian Nutton*. Edited by Rebecca Flemming and Laurence M. V. Totelin. Swansea: Classical Press of Wales. Pages: 41–69.
- Ricciardetto, Antonio, and Danielle Gourevitch. 2021. "L'amour en plus? L'accueil de l'enfant dans l'Égypte gréco-romaine d'après la documentation papyrologique grecque." In *Le médecin et le livre. Hommages à Marie-Hélène Marganne*. Edited by Antonio Ricciardetto, Nathan Carlig, Gabriel Nocchi Macedo, and Magali de Haro Sanchez. Lecce: Pensa Multimedia. Pages 413–446.
- Richler, Raanan. 2015. "Gender Equality at Creation." *TheTorah.com*. Cited 20 November 2020. Online: <https://thetorah.com/article/gender-equality-at-creation>
- Richlin, Amy. 1998. "Pliny's Brassiere." In *Roman Sexualities*. Edited by Judith P. Hallett and Marilyn B. Skinner. Princeton: Princeton University Press. Pages 197–220.
- Riddle, John M. 1992. *Contraception and Abortion from the Ancient World to the Renaissance*. Cambridge, MA: Harvard University Press.
- Riddle, John M. 1993. "High Medicine and Low Medicine in the Roman Empire." In *ANRW* 2, 37, 1: 103–120.
- Riddle, John M. 1999. *Eve's Herbs – A History of Contraception and Abortion in the West*. Cambridge, MA: Harvard University Press.
- Ringrose, Kathryn M. 2003. *The Perfect Servant: Eunuchs and the Social Construction of Gender in the Byzantine Empire*. Chicago: University of Chicago Press.
- Roller, Lynn E. 1997. "The Ideology of the Eunuch Priest." *Gender & History* 9,3: 542–559.
- Rosenberg, Michael. 2014. "The Conflation of Purity and Prohibition: An Interpretation of Leviticus 18:19." *Harvard Theological Review* 107,4: 447–469.
- Rosenberg, Michael. 2016. "Sexual Serpents and Perpetual Virginity: Marian Rejectionism in the Babylonian Talmud." *The Jewish Quarterly Review* 106,4: 465–493.
- Rosenberg, Michael. 2018. *Signs of Virginity. Testing Virgins and Making Men in Late Antiquity*. Oxford: Oxford University Press.
- Rosenblum, Jordan. 2016. "'Blessings of the Breasts': Breastfeeding in Rabbinic Literature." *Hebrew Union College Annual* 87: 145–177.
- Rosen-Zvi, Ishay. 2003. "Blood, identity, and counter-discourse: rabbinic writings on menstruation." *Prooftexts: a Journal of Jewish Literary History* 23,2: 210–228.
- Rosen-Zvi, Ishay. 2013. "The rise and fall of Rabbinic masculinity." *JSIJ – Jewish Studies; an Internet Journal* 12. Online: <https://jewish-faculty.biu.ac.il/files/jewish-faculty/shared/JSIJ12/rosen-zvi.pdf>

- Roth, Martha. 1987. "Age at Marriage and the Household. A Study of Neo-Babylonian and Neo-Assyrian Forms." *Studies in Society and History* 29: 715–747.
- Roth, Ann Macy. 2000. "Father Earth, Mother Sky: Ancient Egyptian Beliefs about Conception and Fertility." In *Reading the Body: Representations and Remains in the Archaeological Record*. Edited by Alison E. Rautman. Philadelphia: University of Pennsylvania Press. Pages 187–201.
- Roth, Ann Macy, and Catharine H. Roehrig. 2002. "Magical bricks and the bricks of birth." *Journal of Egyptian Archaeology* 88: 121–139.
- Rousselle, Aline. 1980. "Observation féminine et ideologie masculine: le corps de la femme d'après le médecins grecs." *Annales (ESC)* 35: 1089–1115.
- Rousselle, Aline. 1983. "La sage-femme et le thaumaturge dans la Gaule tardive. Les sages-femmes ne font pas de miracles." *Revue archéologique du Centre de la France* 22,4: 258–271.
- Rousselle, Aline. 1988. *Porneia: On Desire and the Body in Antiquity*. Translated by F. Pheasant. Oxford: Blackwell Publishing.
- Rousselle, Aline. 1991. "La politique des corps. Entre procréation et continence à Rome." In *Histoire des femmes en Occident. Tome 1: L'Antiquité*. Edited by Pauline Schmitt Pantel. Paris: Plon. Pages 317–369.
- Rousselle, Aline. 1992. "Body Politics in Ancient Rome." In *From Ancient Goddesses to Christian Saints*. Vol. 1 of *A History of Women in the West*. Edited by Pauline S. Pantel. Cambridge, MA: Belknap Press of Harvard University Press. Pages 296–336.
- Saller, Richard P. 1987. "Men's Age at Marriage and Its Consequences in the Roman Family." *Classical Philology* 82,1: 21–34.
- Saller, Richard P. 1999. "Pater Familias, Mater Familias, and the Gendered Semantics of the Roman Household." *Classical Philology* 94,2: 182–197.
- Salvo, Irene. 2021. "Uterine bleeding, knowledge, and emotion in ancient Greek medical and magical representations." In *Bodily fluids in Antiquity*. Edited by Mark Bardley, Victoria Leonard, and Laurence Totelin. New York: Routledge. Pages 57–74.
- Salzman-Mitchell, Patricia. 2012. "Tenderness or taboo: images of breast-feeding mothers in Greek and Latin literature." In *Mothering and motherhood in Greece and Rome*. Edited by Lauren Hackworth Peterson and Patricia Salzman-Mitchell. Austin: University of Texas Press. Pages 141–164.
- Sánchez Romero, Margarita, and Rosa María Cid López, eds. 2018. *Motherhood and Infancies in the Mediterranean in Antiquity*. Oxford and Philadelphia: Oxbow Books.
- Sandhoff, Bridget. 2011. "Sexual Ambiguity? Androgynous Imagery in Etruria." *Etruscan Studies* 141: 71–93.
- Sasson, Vanessa R., and Jane Marie Law, eds. 2009. *Imagining the Fetus: the Unborn in Myth, Religion, and Culture*. Oxford: Oxford University Press.
- Sassoon, Isaac S. D. 2011. *The Status of Women in Jewish Tradition*. Cambridge: Cambridge University Press.
- Sassoon, Isaac S. D. 2014. "The Purification of a Niddah: When Silence Matters." *TheTorah.com*. Cited 18 April 2021. Online: <https://thetorah.com/article/the-purification-of-a-niddah-when-silence-matters>
- Satlow, Michael L. 1995. *Tasting the Dish: Rabbinic Rhetorics of Sexuality*. Atlanta: Scholars Press.
- Satlow, Michael L. 2001. *Jewish Marriage in Antiquity*. Princeton: Princeton University Press.

- Scarborough, John. 1991. "The pharmacy of methodist medicine: The evidence of Soranus' Gynecology." In *Les écoles médicales à Rome. Actes du 2ème Colloque international sur les textes médicaux latins antiques, Lausanne, septembre 1986*. Edited by Philippe Mudry and Jacki Pigeaud. Geneva: Droz. Pages 203–216.
- Scarborough, John. 1992. "Sexual Anatomy: The 'Parts (Female).'" In *Medical and Biological Terminologies: Classical Origins*. Edited by John Scarborough. Norman, OK: University of Oklahoma Press. Pages 210–211.
- Scarborough, John. 2013. "Theodora, Aetius of Amida, and Procopius: some possible connections." *Greek, Roman, and Byzantine Studies* 53: 742–762.
- Schäfer, Alfred, and Daniel Schäfer. 2006. "Obstetrics." In *Brill's New Pauly*. Antiquity volumes edited by Hubert Cancik and Helmuth Schneider. English Edition by Christine F. Salazar. Leiden: Brill. Cited 6 June 2021. Online: http://dx.doi.org/10.1163/1574-9347_bnp_e1400880
- Schmidtchen, Eric. 2018. "The Edition of Esagil-kīn-apli's Catalogue of the Series *Sakik-kū* (SA.GIG) and *Alamdimmū*." In *Assyrian and Babylonian Scholarly Text Catalogues. Medicine, Magic and Divination*. Edited by Ulrike Steinert. Berlin: De Gruyter. Pages 313–333.
- Schremer, Adiel. 2003. *Male and Female He Created Them, Jewish Marriage in the Late Second Temple, Mishnaic and Talmudic Periods*. Jerusalem: Zalman Shazar. (Hebrew)
- Schroer, Silvia, and Thomas Staubli. 2001. *Body Symbolism in the Bible*. Collegeville, MN: The Liturgical Press.
- Schubert, Charlotte, and Ulrich Huttner. 1999. *Frauenmedizin in der Antike: griechisch, lateinisch, deutsch*. Düsseldorf: Artemis & Winkler.
- Schwartz, Rami. 2021. "The Virgin Mother Sarah: The Characterization of the Matriarch in Genesis Rabbah." *Journal for the Study of Judaism* 52: 63–103.
- Scott, Calloway. 2018. "Gender in the Temple: Women's Ailments in the Epidaurian Miracle Cures." *Classical Antiquity* 37,2: 321–350.
- Scurlock, JoAnn. 1991. "Baby-Snatching Demons, Restless Souls and the Dangers of Child-birth: Medico-Magical Means of Dealing with Some of the Perils of Motherhood in Ancient Mesopotamia." *Incognita* 2: 137–185.
- Scurlock, JoAnn. 2014a. *Sourcebook for Ancient Mesopotamian Medicine*. Atlanta: SBL Press.
- Scurlock, JoAnn. 2014b. "Medicine and Healing Magic." In *Women in the Ancient Near East. A Sourcebook*. Edited by Mark W. Chavalas. London: Routledge. Pages 101–143.
- Scurlock JoAnn, and Burton R. Andersen. 2005. *Diagnoses in Assyrian and Babylonian Medicine*. Urbana: University of Illinois Press.
- Secord, Jared. 2017. "Galen and the Theodotians: Embryology and Adoptionism in the Christian Schools of Rome." *Studia Patristica* 81: 51–63.
- Secunda, Shai. 2008. "Dashtana – 'Ki Derekh Nashim Li': A Study of the Babylonian Rabbinic Laws of Menstruation in Relation to Corresponding Zoroastrian Texts." Ph.D. diss., Yeshiva University.
- Secunda, Shai. 2012. "The Construction, Composition, and Idealization of the Female Body in Rabbinic Literature and Parallel Iranian Texts: Three Excurses." *Nashim* 23: 60–86.
- Secunda, Shai. 2020. *The Talmud's Red Fence: Menstrual Impurity and Difference in Babylonian Judaism and Its Sasanian Context*. Oxford: Oxford University Press.
- Sefati, Yitzhak. 1998. *Love Songs in Sumerian Literature. Critical Edition of the Dumuzi-Inanna Songs*. Ramat Gan: Bar-Ilan University Press.
- Shail, Andrew, and Gillian Howie, eds. 2005. *Menstruation: A Cultural History*. New York: Palgrave Macmillan.

- Sharrock, Alison, and Alison Keith, eds. 2020. *Maternal Conceptions in Classical Literature and Philosophy*. Toronto: University of Toronto Press.
- Shaw, Brent D. 1987. "The Age of Roman Girls at Marriage: Some Reconsiderations." *Journal of Roman Studies* 77: 30–46.
- Shaw, Teresa M. 1997. "Creation, Virginity, and Diet in Fourth Century Christianity: Basil of Ancyra's On the True Purity of Virginity." *Gender and History* 9,3: 579–596.
- Shaw, Teresa M. 1998. *The Burden of the Flesh: Fasting and Sexuality in Early Christianity*. New York: Fortress.
- Shell-Duncan, Bettina, and Ylva Hernlund, eds. 2000. *Female "Circumcision" in Africa. Culture, Controversy, Change*. Boulder: Lynne Rienner Publishers.
- Shemesh, Aharon. 1998. "4Q271.3: A Key to Sectarian Matrimonial Law." *Journal of Jewish Studies* 49,2: 244–263.
- Shinnar, Shulamit. 2021. "The Experiments of Cleopatra: Foreign, Gendered, and Empirical Knowledge in the Babylonian Talmud." In *Defining Jewish Medicine. Transfer of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 215–243.
- Shrue, Karl. 2016. "Nuptial Imagery, Christian Devotion and the Marriage Debate in Late Roman Society." In *Religious Competition in Late Antiquity*. Edited by Nathaniel Desrosiers and Lily Vuong. Atlanta: SBL Press. Pages 167–177.
- Shveka, Avi, and Avraham Faust. 2020. "Premarital sex in biblical law: a cross-cultural perspective." *Vetus Testamentum* 70,2: 316–339.
- Sideras, Alexander. 2016. "Rufus von Ephesos und sein Werk im Rahmen der antiken Medizin." In ANRW 37.2. Edited by Wolfgang Haase. Berlin: De Gruyter. Pages 1077–1253. <https://doi.org/10.1515/9783110875393-004>
- Simkins, Ronald A. 2014. "The Embodied World: Creation Metaphors in the Ancient Near East." *Biblical Theology Bulletin* 44: 40–53.
- Simini, Valerio. 2017. "Cross-dressing and the sexual symbolism of the divine sphere in pharaonic Egypt." In *TransAntiquity: Cross-Dressing and Transgender Dynamics in the Ancient World*. Edited by Domitilla Campanile, Filippo Carlà-Uhink, and Margherita Facella. London: Routledge. Pages 85–98.
- Sissa, Giulia. 1983. "Il corpo della donna: lineamenti di una ginecologia filosofica." In *Madre materia. Sociologia e biologia della donna greca*. Edited by Silvia Campese, Paola Manuli, and Giulia Sissa. Turin: Boringhieri. Pages 83–145.
- Sissa, Giulia. 1990. *Greek Virginity*. Cambridge, MA: Harvard University Press.
- Sissa, Giulia. 1992. "Marriage in Ancient Greece." In *A History of Women in the West: From Ancient Goddesses to Christian Saints*. Edited by Pauline S. Pantel. Cambridge, MA: Harvard University Press. Pages 233–294.
- Sissa, Giulia. 2013. "The Hymen Is a Problem, Still. Virginity, Imperforation, and Contraception, from Greece to Rome." *Eugesta* 3: 67–123.
- Spieser, Cathie. 2007. "De l'embryon humain à l'embryon divin en Egypte ancienne." In *L'embryon humain à travers l'histoire – Images, savoirs et rites*. Edited by Véronique Dasen. Gollion: infolio. Pages 23–39.
- Spieser, Cathie. 2012. "Les nourrices égyptiennes." In *Art de manger, art de vivre, nourriture et société de l'Antiquité à nos jours*. Edited by Véronique Dasen and Marie-Claire Gérard-Zai. Gollion: infolio. Pages 19–39.
- Spieser, Cathie. 2018. "Aspects of the Womb in Ancient Egypt – The Matrix of the World." In *Cultural Constructions of the Uterus in Pre-modern Societies, Past and Present*. Edit-

- ed by Erica Couto-Ferreira and Lorenzo Verderame. Newcastle upon Tyne: Cambridge Scholars Publishing. Pages 85–97.
- Soardi, Marzia. 2018. "A Cold Place, a Hot Place: Female Matrix in the Aristotelian Theory of Generation." In *Cultural Constructions of the Uterus in Pre-Modern Societies, Past and Present*. Edited by M. Erica Couto-Ferreira and Lorenzo Verderame. Newcastle, UK: Cambridge Scholars. Pages 101–112.
- Soardi, Marzia. 2023. "Some Aspects of Aristotle's Gynaecological Considerations". (In this volume).
- Solevåg, Anna Rebecca. 2013. *Birthing salvation: gender and class in early Christian child-bearing discourse*. Leiden: Brill.
- Stadhouders, Henry, and Ulrike Steinert. 2018. "Two rituals to postpone an ill-omened childbirth: an edition of KAR 223 and duplicates." *Le Journal des Médecines Cunéiformes* 32: 56–76.
- Steinberg, Jonah. 1997. "From a "Pot of Filth" to a "Hedge of Roses" (And Back): Changing Theorizations of Menstruation in Judaism." *Journal of Feminist Studies in Religion* 13, 2: 5–26.
- Steinert, Ulrike. 2012a. "K. 263+10934, A Tablet with Recipes against the Abnormal Flow of a Woman's Blood." *Sudhoffs Archiv* 96: 64–94.
- Steinert, Ulrike. 2012b. *Aspekte des Menschseins im Alten Mesopotamien. Eine Studie zu Person und Identität im 2. und 1. Jt. v. Chr.* Leiden: Brill.
- Steinert, Ulrike. 2013. "Fluids, Rivers, and Vessels: Metaphors and Body Concepts in Mesopotamian Gynaecological Texts." *Le Journal des Médecines Cunéiformes* 22: 1–23.
- Steinert, Ulrike. 2014. "I smell a rat! Fumigation in Mesopotamian and Hippocratic recipes for women's ailments – Part 1 and 2." *The Recipes Project. Food, Magic, Art, Science and Medicine*. (Posted 11 and 13 March, 2014). <http://recipes.hypotheses.org/3278>; <http://recipes.hypotheses.org/3284>
- Steinert, Ulrike. 2015. "Tested Remedies in Mesopotamian Medical Texts: A Label for Efficacy Based on Empirical Observation?" In *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Edited by J. Cale Johnson. Berlin: De Gruyter. Pages 103–145.
- Steinert, Ulrike. 2016. "Uterus." *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 14. Edited by Michael P. Streck. Berlin: De Gruyter. Pages 513–516 (§§1–5).
- Steinert, Ulrike. 2017a. "Concepts of the Female Body in Mesopotamian Gynecological Texts." *The Comparable Body – Analogy and Metaphor in Ancient Mesopotamian, Egyptian, and Greco-Roman Medicine*. Edited by John Z. Wee. Leiden: Brill. Pages 275–357.
- Steinert, Ulrike. 2017b. "Cows, Women and Wombs: Interrelations between Texts and Images from the Ancient Near East." *From the Four Corners of the Earth: Studies in Iconography and Cultures of the Ancient Near East in Honour of F.A. M. Wiggermann*. Edited by David Kertai and Olivier Nieuwenhuys. Münster: Ugarit-Verlag. Pages 205–258.
- Steinert, Ulrike. 2020a. "Healing substances and therapies in Mesopotamian women's health care texts: properties, effects and cultural meanings." *Le Journal des Médecines Cunéiformes* 36: 54–72.
- Steinert, Ulrike. 2020b. "Disease Concepts and Classifications in Ancient Mesopotamian medicine." *Systems of Classification in Premodern Medical Cultures. Sickness, Health, and Local Epistemologies*. Edited by Ulrike Steinert. London: Routledge. Pages 140–194.
- Steinert, Ulrike. 2023. "Created to Bleed. Blood, Women's Bodies and Gender in Ancient Mesopotamian Medicine." (In this volume).

- Steinert, Ulrike. (In preparation). *Women's Healthcare in Ancient Mesopotamia: An Edition of the Textual Sources*. Berlin: De Gruyter.
- Steinert, Ulrike, and Luděk Vácín. 2018. "BM 92518 and Old Babylonian Incantations for the 'Belly'." In *Mesopotamian Medicine and Magic: Studies in Honor of Markham J. Geller*. Edited by Strahil V. Panayotov and Luděk Vácín. Leiden: Brill. Pages 694–740.
- Steinert, Ulrike (with Strahil V. Panayotov, Markham J. Geller, Eric Schmidtchen, J. Cale Johnson). 2018. "The Assur Medical Catalogue (AMC)." In *Assyrian and Babylonian Scholarly Text Catalogues. Medicine, Magic and Divination*. Edited by Ulrike Steinert. Berlin: De Gruyter. Pages 203–291.
- Stevenson, Walter. 1995. "The Rise of Eunuchs in Greco-Roman Antiquity." *Journal of the History of Sexuality* 5,4: 495–511.
- Stewart, Andrew. 1997. *Art, Desire and the Body in Ancient Greece*. Cambridge: Cambridge University Press.
- Stökl, Jonathan. 2012. *Prophecy in the Ancient Near East: A Philological and Sociological Comparison*. Leiden: Brill.
- Stol, Marten. 2000a. *Birth in Babylonia and the Bible: Its Mediterranean Setting*. Groningen: Styx.
- Stol, Marten. 2000b. "Maternal imagination during pregnancy in Babylonia." In *From Athens to Jerusalem; Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel Kottke and Gerhard Baader. Rotterdam: Erasmus. Pages 51–67.
- Stol, Marten. 2016. *Women in the Ancient Near East*. Berlin: De Gruyter.
- Storti, Gemma. 2018. "Metrodora's Work on the Diseases of Women and their Cures." *Estudios bizantinos* 6: 89–110.
- Strassfeld, Max. 2016. "Translating the Human: The Androgynos in Tosefta Bikurim." *TSQ: Transgender Studies Quarterly* 3: 587–604.
- Strassfeld, Max. 2022. *Trans Talmud: Androgynes and Eunuchs in Rabbinic Literature*. Berkeley: University of California Press.
- Stratton, Kimberly B., and Diane S. Kalleres, eds. 2014. *Daughters of Hecate: Women and Magic in the Ancient World*. Oxford: Oxford University Press.
- Strauch Schick, Shana. 2017. "Depictions of childbirth in rabbinic literature: the innovation of a Genizah midrashic text." In *Mothers in the Jewish Cultural Imagination*. Edited by Marjorie Lehman, Jane L. Kanarek, and Simon J. Bronner. Liverpool, UK: The Littman Library of Jewish Civilization, in association with Liverpool University Press. Pages 285–306.
- Strauch Schick, Shana. 2019. "From dungeon to haven: competing theories of gestation in Leviticus Rabbah and the Babylonian Talmud." *AJS Review* 43,1: 143–168.
- Strauch Schick, Shana. 2023. "Do Women emit seed? Theories of embryogenesis and the regulation of female masturbation in rabbinic literature." (In this volume).
- Surtees, Allison, and Jennifer Dyer, eds. 2020. *Exploring Gender Diversity in the Ancient World*. Edinburgh: Edinburgh University Press.
- Svärd, Saana, and Agnes Garcia-Ventura, eds. 2018. *Studying Gender in the Ancient Near East*. University Park, PA: Eisenbrauns.
- Svärd, Saana, and Martti Nissinen. 2018. "(Re)constructing the Image of the Assinnu." In *Studying Gender in the Ancient Near East*. Edited by Saana Svärd and Agnès Garcia-Ventura. University Park, PA: Eisenbrauns. Pages 373–412.
- Tatarkiewicz, Anna. 2018. *Mater in statu nascendi. Społeczne i medyczne aspekty zdrowia reprodukcyjnego kobiet w starożytnym Rzymie* (Mater in statu nascendi. Social and med-

- ical aspects of female reproductive health in ancient Rome). Posen: Adam Mickiewicz University Press.
- Tatarkiewicz, Anna 2021. "Souffrances des accouchées. Les moyens antiques d'avancer l'accouchement et de calmer ses douleurs/Suffering in childbirth. Ancient ways to augment labour and reduce pain." *Ágora. Estudos Clássicos em Debate* 23,1: 49–64.
- Temkin, Owsei, ed. and trans. 1956. *Soranus' Gynecology*. Baltimore: Johns Hopkins University Press.
- Thiessen, Matthew. 2012. "Luke 2:22, Leviticus 12, and Parturient Impurity." *Novum Testamentum* 54: 16–29.
- Thiessen, Matthew. 2018. "The Legislation of Leviticus 12 in Light of Ancient Embryology." *Vetus Testamentum* 68,2: 297–319.
- Thomssen, Henrike, and Probst, Christian. 2016. "Die Medizin des Rufus von Ephesos." *ANRW Band 37,2*. Edited by Wolfgang Haase. Berlin: De Gruyter. Pages 1254–1292. <https://doi.org/10.1515/9783110875393-005>
- Thumiger, Chiara. 2022. "Clitoridectomy in Ancient Greco-Roman Medicine and the Definition of Sexual Intercourse." In *Sex and the Ancient City. Sex and Sexual Practices in Greco-Roman Antiquity*. Edited by Andreas Serafim, George Kazantzidis, and Kyriakos Demetriou. Berlin: De Gruyter. Pages 141–172.
- Thumiger, Chiara, and Georgia Petridou, eds. 2016. *Homo Patiens – Approaches to the Patient in the Ancient World*. Leiden: Brill.
- Tieleman, Teun. 1991. "Diogenes of Babylon and Stoic embryology. Ps. Plutarch, Plac V 15.4 reconsidered." *Mnemosyne* 44, 1/2: 106–125.
- Tigay, Jeffrey H. 1993. "Examination of the Accused Bride in 4Q159: Forensic Medicine at Qumran." *Journal of Ancient Near Eastern Society* 22: 129–134.
- Tite, Philip. 2009. "Nurslings, milk and moral development in the Greco-Roman context: a reappraisal of the paraenetic utilization of metaphor in Peter 2.1–3." *Journal for the Study of the New Testament* 31,4: 371–400.
- Töpfer, Susanne. 2014. "The physical activity of parturition in Ancient Egypt: textual and epigraphical sources." *Dynamis* 34,2: 317–335.
- Tolino, Serena, Almut Höfert, and Matthew M. Mesley, eds. 2018. *Celibate and Childless Men in Power Ruling Eunuchs and Bishops in the Pre-Modern World*. London: Routledge.
- Totelin, Laurence M. V. 2009. *Hippocratic Recipes: Oral and Written Transmission of Pharmacological Knowledge in Fifth- and Fourth-Century Greece*. Leiden: Brill.
- Totelin, Laurence M. V. 2011. "Old recipes, new practice? The Latin adaptations of the Hippocratic 'Gynaecological Treatises'." *Social History of Medicine* 24,1: 74–91.
- Totelin, Laurence M. V. 2017. "Motherhood in flux: Greek nymphs, breastfeeding, and ancient gynaecology." In *Maternità e politeismi. Motherhood(s) and polytheisms*. Edited by Florence P. Guignard, Giulia Pedrucci, and Marianna Scapini. Bologna: Patron Editore. Pages 359–370.
- Totelin, Laurence M. V. 2020a. "A little old lady told me: appropriation of weak actors' knowledge in Graeco-Roman pharmacology." In *Weak Knowledge: Forms, Functions, and Dynamics*. Edited by Moritz Epple, Annette Imhausen, and Falk Müller. Frankfurt: Campus Verlag. Pages 109–124.
- Totelin, Laurence M. V. 2020b. "Do no harm: Phanistrate's midwifery practice." *Technai, An International Journal for Ancient Science and Technology* 11: 129–143.

- Totelin, Laurence M. V. 2020c. "A Woman in Flux: Fluidity in Hippocratic Gynaecology." In *Holism in Ancient Medicine and Its Reception*. Edited by Chiara Thumiger. Leiden: Brill. Pages 220–236.
- Totelin, Laurence M. V. 2021. "Breastmilk in the cave and on the arena: Early Christian stories of lactation in context." In *Bodily Fluids in Antiquity*. Edited by Mark Bradley, Victoria Leonard, and Laurence Totelin. London: Routledge. Pages 240–255.
- Tougher, Shaun F., ed. 2002. *Eunuchs in Antiquity and Beyond*. London: Duckworth.
- Tougher, Shaun F. 2008. *The Eunuch in Byzantine History and Society*. London: Routledge.
- Tougher, Shaun F. 2020. *The Roman Castrati: Eunuchs in the Roman Empire*. London: Bloomsbury.
- Townsend, John T. 1994. "Creation and gender in rabbinic literature." *Encounter* 55,1: 1–21.
- Trevaskis, Leigh M. 2015. "Dangerous liaisons: sex and the menstruating woman in Leviticus." In *Text, Time, and Temple; Literary, Historical and Ritual Studies in Leviticus*. Edited by Francis Landy, Leigh M. Trevaskis, and Bryan D. Bibb. Sheffield: Sheffield Phoenix Press. Pages 131–152.
- Tsatsou, Eleni. 2019. "Uterine Amulets: Amulets that Protect the Uterus or that Reinforce Erotic Desire?" In *Magical Gems In their Contexts*. Edited by Kata Endreffy, Árpád Miklós Nagy, and Jeffrey Spier. Rome: L'Erma di Bretschneider. Pages 271–282.
- Tsoucalas, Gregory, Antonis A Kousoulis, Effie Poulakou-Rebelakou, Marianna Karamanou, Maria Papagrigoriou-Theodoridou, and George Androutsos. 2014. "Queen Cleopatra and the other 'Cleopatras': their medical legacy." *Journal of Medical Biography* 22,2: 115–121.
- Tuten, Belle S. 2014. "Lactation and breast diseases in Antiquity: medical authorities on breast health and treatment." *Quaestiones Medii Aevi Novae* 19: 159–186.
- Tuten, Belle S. 2020. "Care of the Breast in the Late Middle Ages. The Tractatus de passionibus mamillarum." In *Gender, Health, and Healing, 1250–1550*. Edited by Sara Ritchey and Sharon Strocchia. Amsterdam: Amsterdam University Press. Pages 119–138.
- Tziraki-Segal, Chariklia. 2009. "Parental imprinting in ancient Greco-Roman and Jewish sources." *Korot* 19: 135–160.
- Ullmann, Manfred. 2016. "Die arabische Überlieferung der Schriften des Rufus von Ephesos." ANRW 37,2. Edited by Wolfgang Haase. Berlin: De Gruyter. Pages 1293–1350. <https://doi.org/10.1515/9783110875393-006>
- Undheim, Sissel. 2017. *Borderline Virginites*. London: Routledge.
- Upson-Saia, Kristi. 2019. "Gregory of Nyssa on Virginity, Gardens, and the Enclosure of the Παράδεισος." *Journal of Early Christian Studies* 27,1: 99–131.
- Urso, Anna Maria, ed. and tr. 2018. *Liber geneciae ad Soteris obsetrix: Introduzione, edizione critica, traduzione e commento*. Santiago de Compostela: Andavira Editora.
- Urso, Anna Maria. 2020. "Inside Soranus." *Medicina nei secoli* 32,1: 31–46.
- Valler, Shulamit. 1999. *Women and Womanhood in the Talmud*. Providence, RI: Brown Judaic Studies.
- Van der Eijk, Philip. 2016. "On 'Hippocratic' and 'non-Hippocratic' medical writings." In *Ancient Concepts of the Hippocratic*. Edited by Lesley Dean-Jones and Ralph M. Rosen. Leiden: Brill. Pages 17–47.
- Van der Horst, P. W. 1990. "Sarah's Seminal Emission. Heb 11:11 in the Light of Ancient Embryology." In *Greeks, Romans, and Christians. Essays in Honor of Abraham J. Malherbe*. Edited by David L. Balch, Everett Ferguson, and Wayne A. Meeks. Minneapolis: Fortress. Pages 287–302.

- Van der Horst, P. W. 2012. "Bitenosh's Orgasm (1QapGen 2:9–15)." *Journal for the Study of Judaism* 43: 613–628.
- Van der Horst, P. W. 2015/16. "Seven Months' Children in Ancient Jewish and Christian Literature." *Korot: The Israel Journal of the History of Medicine and Science* 23: 73–98.
- Van de Walle, Etienne. 2001. "Menstrual Catharsis and the Greek Physician." In *Regulating Menstruation: Beliefs, Practices, Interpretations*. Edited by Etienne van de Walle and Elisha P. Renne. Chicago: The University of Chicago Press. Pages 3–21.
- Van Minnen, P. 2012. "A wet-nursing contract from Hermopolis." In *Inediti offerti a Rosario Pintaudi*. Edited by Diletta Minutoli. Florence: Gonnelli. Pages 201–206.
- Vedeler, Harold T. 2008. "Reconstructing Meaning in Deuteronomy 22:5: Gender, Society, and Transvestitism in Israel and the Ancient Near East." *Journal of Biblical Literature* 127,3: 459–476.
- Veltri, Giuseppe. 1997. *Magie und Halakha. Ansätze zu einem empirischen Wissenschaftsbegriff im spätantiken und frühmittelalterlichen Judentum*. Tübingen: Mohr Siebeck.
- Verskin, Sara. 2020. *Barren Women. Religion and Medicine in the Medieval Middle East*. Berlin: De Gruyter.
- Vilatte, Sylvie. 1991. "La nourrice grecque: une question d'histoire sociale et religieuse." *L'Antiquité Classique* 60,1: 5–28.
- Viesel, Eran. 2011. "The Influence of Realia on Biblical Depictions of Childbirth," *Vetus Testamentum* 61,4: 685–689.
- Vogel, Helga. 2014. "Mädchen in altorientalischen Quellen." In *Mädchen im Altertum/Girls in Antiquity*. Edited by Susanne Moraw and Anna Kieburg. Münster: Waxmann. Pages 79–90.
- Volk, Konrad. 1996. "Methoden altmesopotamischer Erziehung nach Quellen der altbabylonischen Zeit." *Saeculum* 47: 178–216.
- Volk, Konrad. 2004. "Vom Dunkel in die Helligkeit: Schwangerschaft, Geburt und frühe Kindheit in Mesopotamien." In *Naissance et petite enfance dans l'antiquité*. Edited by Véronique Dasen. Fribourg: Academic Press. Pages 71–92.
- Volk, Konrad. 2006. "Von Findel-, Waisen-, verkauften und deportierten Kindern: Notizen aus Babylonien und Assyrien." In *"Schaffe mir Kinder, wenn nicht, sterbe ich."* Beiträge zur Kindheit im alten Israel und in seinen Nachbarkulturen. Edited by Andreas Künz-Lübcke and Rüdiger Lux. Leipzig: Evangelische Verlagsanstalt. Pages 47–87.
- Von Staden, Heinrich. 1991. "Apud nos foediora verba: Celsus' reluctant construction of the female body." In *Le Latin medical: la constitution d'un langage scientifique*. Edited by Guy Sabbah. Saint-Étienne: Publications de l'Université de Saint-Étienne. Pages 271–296.
- Von Staden, Heinrich. 1992. "Women and Dirt." *Helios* 19,1–2: 7–30.
- Vuong, Lily C. 2013. *Gender and Purity in the Protevangelium of James*. Tübingen: Mohr Siebeck.
- Walfish, Miriam-Simma. 2017. "Upending the Curse of Eve: A Reframing of Maternal Breastfeeding in BT Ketubot." In *Mothers in the Jewish Cultural Imagination*. Edited by Jane L. Kanarek, Marjorie Lehman, and Simon J Bronner. Liverpool: Littman Library of Jewish Civilizations and Liverpool University Press. Pages 307–326.
- Walker, Abbe L. 2020. *Bride of Hades to Bride of Christ: The Virgin and the Otherworldly Bridegroom in Ancient Greece and Early Christian Rome*. London: Routledge.
- Walters, Jonathan. 1997. "Invading the Roman Body: Manliness and Impenetrability in Roman Thought." In *Roman Sexualities*. Edited by Hallett, Judith P. and Skinner, Marilyn B. Princeton: Princeton University Press. Pages 29–43.

- Walzer, Richard. 1935. "Galens Schrift über die Siebenmonatskinder." *Rivista degli studi orientali* 15,4: 323–357.
- Wassen, Cecilia. 2005. *Women in the Damascus Document*. Leiden: Brill.
- Weissenrieder, Annette. 2019. "Of Childbirth and Salvation: 1 Timothy 2:15 in Light of Ancient Medicine and the Artemis Cult in Ephesus." In *Gender and Social Norms in Ancient Israel, Early Judaism and Early Christianity*. Edited by Michael Bauks, Katharina Galor, and Judith Hartenstein. Göttingen: Vandenhoeck & Ruprecht. Pages 347–379.
- Weissenrieder, Annette, and Katrin Dolle. 2019. *Körper und Verkörperung. Biblische Anthropologie im Kontext antiker Medizin und Philosophie. Ein Quellenbuch für die Septuaginta und das Neue Testament*. Berlin: De Gruyter.
- Wegner, Judith R. 1988. *Chattel or Person? The Status of Women in the Mishnah*. New York: Oxford University Press.
- Wells, Bruce. 2005. "Sex, Lies, and Virginal Rape: The Slandered Bride and False Accusation in Deuteronomy." *Journal of Biblical Literature* 124,1: 41–72.
- Wendt, Heidi. 2016. *At the Temple Gates. The Religion of Freelance Experts in the Roman Empire*. New York: Oxford University Press.
- Wenham, Gordon J. 1972. "Betûlâh: 'A Girl of Marriageable Age.'" *Vetus Testamentum* 22,3: 326–348.
- Wilberding, James, tr. 2011. *Porphyry: To Gaurus on how embryos are ensouled and On what is in our power. Translation with introduction and notes by J. Wilberding*. London: Bristol Classical Press.
- Wilberding, James. 2014. "Teratology in Neoplatonism." *British Journal of the History of Philosophy* 22,5: 1021–1042.
- Wilberding, James. 2015a. "The revolutionary embryology of the Neoplatonists." *Oxford Studies in Ancient Philosophy* 49: 321–361.
- Wilberding, James. 2015b. "Plato's embryology." *Early Science and Medicine* 20: 150–168.
- Wilberding, James. 2016a. "Embryology." In *Companion to Greek Science, Medicine and Technology*. Edited by Georgia L. Irby. Hoboken, NJ: Wiley-Blackwell. Pages 329–342.
- Wilberding, James. 2016b. *Forms, Souls and Embryos: Neoplatonists on Human Reproduction. Issues in ancient philosophy*. London; New York: Routledge.
- Wilcke, Claus. 1985. "Familiengründung im alten Babylonien." In *Geschlechtsreife und Legitimation zur Zeugung*. Edited by Ernst W. Müller. Freiburg: Alber. Pages 213–317.
- Wilfong, Terry G. 1999. "Menstrual Synchrony and the 'Place of Women' in Ancient Egypt (OIM 13512)." In *Gold of Praise. Studies on Ancient Egypt in Honor of Edward F. Wente*. Edited by Emily Teeter and John A. Larson. Chicago: Oriental Institute of the University of Chicago. Pages 419–434.
- Wilfong, Terry G. 2007. "Gender and Sexuality." In *The Egyptian World*. Edited by Toby Wilkinson. London: Routledge. Pages 205–217.
- Wilkinson, Kate. 2015. *Women and Modesty in Late Antiquity*. Cambridge: Cambridge University Press.
- Williams, Craig A. 2010. *Roman Homosexuality: Ideologies of Masculinity in Classical Antiquity*. Second Edition. Oxford: Oxford University Press.
- Wilson, Brittanye E. 2014. "'Neither Male nor Female': The Ethiopian Eunuch in Acts 8.26–40." *New Testament Studies* 60: 403–422.
- Wimpfheimer, Barry. 2017. "Footnotes to *Carnal Israel*: Infertility and the Legal Subject." In *Talmudic Transgressions: Engaging the Work of Daniel Boyarin*. Edited by Charlotte Fonrobert et al. Leiden: Brill. Pages 161–200.

- Wyke, Maria, ed. 1998. *Parchments of gender: deciphering the bodies of antiquity*. Oxford: Clarendon Press.
- Wyszynski, Diego F. 2001. "Dysmorphology in the Bible and the Talmud." *Teratology* 64: 221–225.
- Xeravitz, Géza G., ed. 2015. *Religion and Female Body in Ancient Judaism and Its Environments*. Berlin: De Gruyter.
- Yee, Gale A. 2009. "'Take this Child and Suckle it for Me': Wet Nurses and Resistance in Ancient Israel." *Biblical Theology Bulletin* 39,4: 180–189.
- Zeitlin, Froma I. 1995. *Playing the Other. Gender and Society in Classical Greek Literature*. Chicago: University of Chicago Press.
- Zimmermann Kuoni, Simone. 2021. "The Obstetric Connection: Midwives and Weasels within and beyond Minoan Crete." *Religions* 12: 1056. Cited 12 January 2022. Online: <https://doi.org/10.3390/rel12121056>
- Zuccolin, Gabriella. 2018. "Ancient and medieval twins: medical theory and moral implications." In *Pregnancy and childbirth. History, medicine and anthropology*. Edited by Constanza Gislon Dopfel. Moraga, CA: St Mary's College of California. Pages 122–130.

II. To Cultivate a Field –
Thinking about Women's Bodies in Different Traditions

The Female Body in Ancient Egypt

Sources, Terminology, and Concepts

TANJA POMMERENING

ABSTRACT: Ancient Egyptian texts that develop anatomical or physiological concepts of female bodies in detail have not been found so far. It is nevertheless possible to at least partially reconstruct the ideas of the female (in contrast to male) body and functions (conception, reproductive substances, pregnancy, and lactation). This reconstruction makes full use of the extant sources – not only texts concerning gynecology and obstetrics, like diagnostic texts, prescriptions, fertility and pregnancy tests, magical incantations and spells, but also magical texts and sources from nonmedical contexts. A discussion of five Egyptian key terms designating female body parts, organs, or regulation systems (*id.t*, *mw.t-rmt*, *iwf*, *šd* and *k:t*) is followed by an analysis of six prominent concepts that involve different text genres and times. It will be shown which ideas emerged in which contexts, and that most of them seem to be deeply rooted in the broader Ancient Egyptian worldview, and that remedies are rationally used according to the underlying anatomical and physiological concepts. Some cross-cultural comparisons reveal what was specific, what might have been transmitted, and which ideas may have emerged independently by reasoning on the body and its functions.

The purpose of this contribution is to give more insight into the concepts of the female body and its regulation systems based on broader discourses and their comparisons, with restrictions to an emic perspective.¹ The term “concept” is used in two different ways here. The first part of the contribution is dedicated to concepts behind the specific terminology for female body parts/complexes/organs/regulation systems in medical texts; it deals with concepts behind words. The second part deals with concepts in the sense of views and ideas that concern larger contexts and have served as the basis for conclusions concerning the possibilities of influencing the female body in some form. From this perspective, we gain some abstract ideas that have formed the basis for practical actions, or remedies, in the healing field.

Both meanings of “concept” have as their basis a definition that connects them: concepts are culturally and cognitively formed and organized conglomerates of

¹ Valuable studies in this direction are, e. g., Sauneron 1960; Ritner 1984; Couto-Ferreira and Verderame 2018 (cross-cultural).

properties or knowledge components that are subject to certain changes. Depending on context (discourse, type of source, space, time, individual) we can find different properties or knowledge components of a concept.² Because an investigation of all these contextual differences would lead to a book rather than a contribution, I present here the most important concepts that existed over a longer period or in a larger group of different text genres. Indeed, the Egyptian texts are very different from later – namely, Greek – ones. There are no discourses that deal comprehensively with one field of specific knowledge about women before Greco-Roman times.³ I could not find texts explaining pregnancy (*iwr*), birth (*ms.wt*), conception, procreation, lactation, or the way everything can be influenced exactly under these headings. The Egyptian concepts are scattered over many sources and must be developed from what has been handed down.⁴

One of the questions that can be dealt with only in passing is whether certain ideas might be relative universals or specific in their origins, having then influenced the concepts of subsequent scholars in a process of knowledge exchange or transmission.⁵ One of the biggest problems when dealing with the question of transmission and exchange is that we can rely only on the textual evidence that has

² For this understanding of the term “concept”, see Pommerening 2017a, 168 with further literature.

³ An exceptional text on procreation and its organs from Roman times (the hymn of Re-Khnum), with some older ideas that were reformulated and further refined during the Late Period can be found on one of the columns in the temple from Esna. For the text and a detailed discussion, see Mathieu 2012.

⁴ A consideration from the perspective of the fields just mentioned has already been undertaken in some places, sometimes from a very broad perspective, also summarizing cross-cultural results. For maternity, see Feucht 2004; Marshall 2015. For cross-cultural comparisons, see Budin 2011; Budin and Macintosh 2016. These topics are dealt with here only from the perspective of regulations on the female body. For the subject of pregnancy, see Spieser 2004; Marshall 2015. For conception and fertility, see Roth 2000; Jean and Loyrette 2001; Juaneda-Magdalena 2013 (also on breastfeeding and maternity); Toivari-Viitala 2001 (Deir el-Medina). For the different ways the matrix as space of birth and rebirth could be conceptualized, including texts, terminology and images, see Spieser 2018 with further literature.

⁵ The term “relative universals” is borrowed from the field of linguistics, where it is linked to properties that show up in some languages (i. e. 30 % of languages). The term “absolute universals”, on the other hand, designates properties that show up in every language. As for the long-standing issue of possible influence of ancient Egyptian medical knowledge on the Hippocratic or other important Greek medical schools, this remains controversial today; see Steuer and Saunders 1959; Saunders 1963; Goltz 1974; von Staden 1989, 1–31; Marganne 1993; Ritner 2000, 115–116; Ritner 2007. To argue convincingly for or against the influence is difficult because only a few ancient Egyptian texts are directly comparable to the Greek ones in terms of content or form; see the compilation by Iversen 1939. Some case studies of interrelations between Egyptian and Near Eastern as well as Egyptian and Greek medical sources have been published recently and have shown the big potential of further studies concerning the transmission and exchange of knowledge between these regions over a long time; see Beck 2015; Pommerening 2010; 2015; Pommerening and Steinert 2019; cf. Althoff, Berrens, and Pommerening 2019. So far, only a few of them have dealt with some examples of concepts becoming more widespread in the field of gynecology: Iversen 1939; Ghalioungui 1977; Green 2003; Pommerening 2010; Pommerening 2015.

been handed down to us. Knowledge transmitted orally or practical knowledge learned by active imitation and not written down escapes our perspective.⁶ Even if texts seem to be similar, then, the concepts behind could differ significantly, as I have shown in previous works.⁷

There is still a lack of an adequate amount of edited medical Egyptian sources from 700 BCE onward, a period of increasing international contact and trade among ancient Near Eastern people, the Greeks, and the Egyptians.⁸ To gain further insight into this field of research, comprehensive interdisciplinary studies are of utmost importance. The following contribution is designed to spark curiosity regarding the integration of Egyptology in such studies. It starts with an introduction to existing ancient Egyptian text sources on concepts of the female body; continues with a discussion of the central terms for specific female body parts, complexes, and regulation systems; and offers an overview of the most important concepts found not only in medical texts but other sources as well. Intercultural comparisons are included in the individual sections.

1. Sources

If we look at medical texts from ancient Egypt, we notice that most of them deal with the sufferings of men.⁹ We could probably assume that the term “man” (*s.j*) refers to all human beings and includes “woman” (*s.t*), but it is noticeable that some remedies are explicitly aimed at helping a “man” or a “woman” (*s.j s.t r3-pw*).¹⁰ Furthermore, it is striking that the text composition “Beginning of the secret knowledge of the physician” (P. Ebers 99,1–100,14), which explains the causes of disease, focuses only on the male body and omits both the term “woman” and specifically female body parts.¹¹ We might again think that the word for “man” could be used as a generic word for human in this context. But, as the text explains: “There are two canals (*mt.w*) in him to his testicles; it is them who give the semen”, we can be quite sure that this text refers specifically to a man because neither testicles nor

⁶ Cf. Ellen 2019, esp. 55–57.

⁷ Pommerening 2010; Pommerening 2015.

⁸ Summaries on gynecology in ancient Egypt can be found from the perspective of history of medicine in Kolta and Schwarzmans-Schafhauser 2000, 127–136; from a medical perspective by Strouhal, Vachala, and Vymazalová 2014 (with a collection of English translations and explanations of the most prominent medical texts for a wider public, esp. physicians); from the perspective of Egyptology Grapow, von Deines, and Westendorf 1954–1973; Westendorf 1999. For more up to date translations, see *Science in Ancient Egypt*, Website of the Sächsische Akademie der Wissenschaften zu Leipzig, <https://sae.saw-leipzig.de/de/startseite>. For methodological considerations concerning translations of scholarly texts with a more emic view, see Pommerening 2016.

⁹ For an overview of the term *s.j* “man” used in medical texts, see Grapow, von Deines, and Westendorf 1954–1973, 7(2):695–698.

¹⁰ Examples in: Grapow, von Deines, and Westendorf 1954–1973, 7(2):698h.

¹¹ Eb 854. For the abbreviation, see table 1 (pp. 136–137).

Papyrus	Abbreviation	Manuscript date (ca.)	Content	Editions
1 P. Kahun med. (UC 32057)	Kah	1850–1800 BCE	Only gynecological: 18/18 teaching texts, 8/8 prescriptions, 8/8 prognoses	Grapow, von Deines, and Westendorf 1954–73, vol. 5; Collier and Quirke 2004
2 P. Ramesseum III (P. BM EA 10756)	Ram III	1800 BCE	Compendium: 1/1 teaching text, 1/33 prescriptions, 0/5 spells	Gardiner 1955; Barns 1956; Grapow, von Deines, and Westendorf 1954–73, vol. 5
3 P. Ramesseum IV (P. BM EA 10757)	Ram IV	1800 BCE	Compendium: 3/14 prescriptions, 2/3 spells, including those for mother and child (A–E), 0/1 prognosis, 1/1 teaching text	Gardiner 1955; Barns 1956; Grapow, von Deines, and Westendorf 1954–73, vol. 5
4 P. Edwin Smith, v.	Sm	1550 BCE	Compendium: 1/1 teaching text (20.13–21.3), 0/8 spells, 0/3 prescriptions	Breasted 1930; Grapow, von Deines, and Westendorf 1954–73, vol. 5; Allen 2005
5 P. Ebers	Eb	1550 BCE	Compendium: 3/44 teaching texts, 0/28 short teaching versions, 51/776 prescriptions, 0/11 prescriptions with spell, 1/10 spells with treatment, 0/3 spells, 2/4 prognoses, 0/4 excerpts, (Eb 783–839 deals with gynecology)	Ebers 1875; Grapow, von Deines, and Westendorf 1954–73, vol. 5
6 P. Louvre E 32847	Lou	1450 BCE	Compendium: 2/24 teaching texts, 5/156 prescriptions, 0/1 prescriptions with spell, 0/50 spells, 0/3 excerpts (rto x+1.9–x+2.13 deals with gynecology) ¹²	Bardinet 2018
7 P. Berlin 3027 ¹³	MuK	1400 BC	Only for mother and child: 3/18 spells, 1/3 prescriptions (texts B, H, J, K)	Erman 1901; Yamazaki 2003
8 P. London (P. BM EA 10059)	L	1350 BCE	Compendium: 0/20 prescriptions, 0/1 prescription with spell, 6/24 spells with treatment (L26, 27–30, 33), 2/18 spells	Leitz 1999
9 P. Berlin 3038	Bln	1250 BCE	Compendium: 0/3 teaching texts, 0/5 abbreviated teaching texts, 7/185 prescriptions, 0/1 prescription with spell, 0/1 spells with treatment, 0/1 spells, 7/7 prognoses, 0/1 excerpt (Bln 192–99 deals with gynecology)	Wreszinski 1909; Grapow, von Deines, and Westendorf 1954–73, vol. 5
10 P. Carlsberg VIII, v.	Clb	1250–1150 BCE	Only for mother and child: 0/1 teaching texts, 6/6 prognoses (§1–7)	Iversen 1939; Grapow, von Deines, and Westendorf 1954–73, vol. 5
11 P. Leiden I 348	Pap. Mag. Leiden	1290–1200 BCE	Compendium: 7/38 spells (nos. 28–34)	Borghouts 1971

12	P. Chester Beatty VI (P. BM EA 10686)	Bt	1250 BCE	Compendium: Primarily diseases and therapy of the anus: 0/2 abbreviated teaching texts, 1/43 prescriptions, 0/2 spells	Gardiner 1935; Grapow, von Deines, and Westendorf 1954–73, vol. 5
13	P. Brooklyn 47.218.2.	Brk Gyn1	5th–3rd century BCE	Only obstetrics (gynecology, mother and child): teaching texts (col. x+v, 14x+vi, 16), prescriptions, spells (col. to x+4,7), rituals of protection	Guermeur 2013; Guermeur 2015; Guermeur 2015–16 (parts unpublished);
14	P. Brooklyn 47.218.47 r.	Brk Gyn2	600–500 BCE	Only woman-specific: 5/5 prognoses, 6/6 spells, rituals of protection, 9/9 predictions, 4/4 didactic texts, spell B and C of the Cippus of Horus	unpublished, editor: Quack
15	P. Brooklyn 47.218.75+86 v.	Brk Gyn3	500 BCE	Only gynecological: prescriptions	unpublished, editor: Unger ¹⁴
16	P. IFAO H 48 r.	pIFAO	100 BCE–100 CE	Only gynecological (?): Remains of prescriptions	Herbin 2011
17	P. Carlsberg 231	Clb 231	first–second centuries CE	Compendium	Unpublished, editor: Jacob ¹⁵
18	Demotic P. London 10070/pLeiden (= P. Ludg. Bat. J 383)	LL	third century CE	Compendium: 6/26 prescriptions, 1/1 prognoses, 0/20 spells, 19 incantations of love, 28 divination texts	Griffith and Thompson 1904–5; Betz 1992
19	Demotic P. Vindob. D. 6257	pWien	100–200 CE	Compendium: 51/179 prescriptions	Reymond 1976 ¹⁶

Table 1. Ancient Egyptian medical papyri dealing with the health of women and children.

¹² Only what is recognizable according to the edition in Bordinet 2018 was counted. A final evaluation can be made only when the recently identified missing parts (P. Carlsberg 917) have also been published; these will be edited by Sofie Schiødt; cf. Dils and Popko 2018, 72–73.

¹³ The so-called “spells for mother and child” must be included in the category “gynecological texts” if we use an emic point of view; they belong to ancient Egyptian medical knowledge, which includes magic as well.

¹⁴ For some remarks on the papyrus, see Unger 2017; Dils and Popko 2018, 74 f.; *Science in Ancient Egypt*, Website of the Sächsische Akademie der Wissenschaften zu Leipzig, <https://sae.saw-leipzig.de/de/startseite>, s.v. Papyrus Brooklyn 47.218.75+86. The edition is prepared by Juliane Unger, Heidelberg.

¹⁵ For some remarks on the papyrus, see Dils and Popko 2018, 77; *Science in Ancient Egypt*, Website of the Sächsische Akademie der Wissenschaften zu Leipzig, <https://sae.saw-leipzig.de/de/startseite>. The edition is prepared by Amber Jacob, New York.

¹⁶ A new edition is prepared by Friedhelm Hoffmann, Munich; see Hoffmann 2010, 201–18.

semen are part of any ancient Egyptian concept of female anatomy attested elsewhere during this time.¹⁷ In fact, however, there are specific sections and separate manuscripts that deal only with the sufferings of women and their causes. It is therefore possible to reconstruct how female counterparts of the male reproductive organs were conceptualized and, accordingly, how regulations and sufferings associated with the female body were understood and influenced in different times and text sources.

The ancient Egyptian sources currently available do not contain any general description of the female body. Nevertheless, medical texts should provide evidence of how the structure and function of the female body were thought to be, so they are the starting point here and will be considered in more detail. The material available is manifold. Table 1 (pp. 136–137) offers an overview of papyri dealing entirely or in part with women.¹⁸ The four typical genres in Egyptian medical texts are the so-called teaching texts, which include diagnosis, prognosis, and treatment of symptoms; prescriptions (= recipes); prognoses, such as those regarding pregnancy, fertility, and birth; and magical incantations and spells.

Some papyri deal exclusively with gynecological issues (table 1, nos. 1, 7, 10, 13–16), the oldest of which is P. Kahun, which includes eighteen teaching texts, eight prescriptions, and eight prognoses. The other papyri are compilations into which gynecological content has been integrated (table 1, nos. 2–6, 8–9, 11–12, 17–19).¹⁹ P. London (P. BM EA 10059), for example, is concerned with different health issues; only six out of its twenty-four spells are devoted to women's health. All in all, there are around 225 individual texts in the sources concerning gynecological issues. This comprises about 10 percent of the total number of medical texts. Gynecological texts formally contain the specification “woman” (*s.t*) in contrast to the common specification “man” (*s.j*).

To achieve a broader view of the specificity and dissemination of the concepts related to women, one needs to take into account other sources apart from med-

¹⁷ Female genitals are missing in most of the numerous anatomical lists from Egypt; cf. the compilation of anatomical lists in Walker 1996, 290–341. One exception is *ks.t* as a variant in the Litany of the Sun (Siglum E); cf. Walker 1996, 315.

¹⁸ Dates and abbreviations in table 1 generally align with Westendorf 1999, 6–51, 72. Hieroglyphic transcriptions in Grapow, von Deines, and Westendorf 1954–1973, vol. 5, served when stated as the principal publication used here. Dubious passages or texts absent from this publication were studied based on the publications listed in the last column. Access to unpublished material was kindly granted by Joachim Friedrich Quack (Brk Gyn2) and Yvan Guermeur (Brk Gyn1). P. Berlin P 13602, which is said to be a gynecological handbook in several publications starting with Erichsen 1954, has proven to be a manuscript with love spells and related practices; see von Lieven and Quack 2018. The category “medical texts” here combines the medical and magical texts, which were separated into two categories by former scholars, such as Grapow, von Deines, and Westendorf 1954–1973 and Westendorf 1999.

¹⁹ To show the number of gynecological texts in the whole papyrus, table 1 shows the texts grouped by text type. The number of gynecological texts of each type (first number) is given in relation to the total number of texts of this type in the papyrus (second number).

ical texts, especially religious, mythological, and iconographical ones. A broader approach can help determine whether concepts varied depending on period, general context, and social function. In this contribution, I will discuss only objects, which are helpful to reconstruct the concepts of the female body and its functions.²⁰

2. Terminology and Pertinent Concepts

In the textual gynecological sources cited here (table 1 [pp.136–137]), only five main terms concern female characteristics (and are never used for male characteristics): *id.t*, *mw.t-rm.t*, *k.t*, *iwf*, and *šd*. A semantic analysis of these terms gives a first impression of how women were distinguished from men. Generally, ancient Egyptian terms for body parts, organs, or regulation systems are used for female humans and animals alike. This is true for *id.t*, *mw.t-rm.t*, *iwf* and *k.t*; only the figurative term *šd* as body part is not attested in animal contexts (so far). The term *id.t* is spelled with a hieroglyph relating to animal anatomy, so the origin of some concepts related to this term seems to be found in the practice and knowledge gained in the field of animal breeding.

2.1 The Term *id.t*: The Uterine Complex, Organ of Femininity

In medical texts (including magical texts), the organ considered to be central as a cause of suffering among women was called *id.t* (see section 3.6.).²¹ The term *id.t* could be written in the following six ways: 1) , 2) , 3) , 4) , 5) , or 6) .

The hieroglyphic sign  was used ideographically (1) or as a classifier behind the consonants *id.t* (2–4).²³ Especially in a medical context, the hieroglyphs can be followed by a hieroglyph showing a piece of meat: . This is a classifier, which emphasizes that a body part or organ or complex was meant. The sign  most probably illustrates a combination of a cow's uterus with two uterine horns with

²⁰ When one looks at the context of childbirth and maternity (rituals and society), many archaeological findings are of interest. They are compiled in the secondary literature cited in note 4. Very valuable is Quirke 2016, where birth tusks and associated objects from the Petrie Museum are compiled, analyzed in detail and recontextualized. It is a treasure of further material and reflections on everything to do with pregnancy and birth.

²¹ On reading the sign as *id.t* rather than *hm.t*, see Gardiner 1947, 258*–62* and Collombert 1995, 205 f.

²² See Grapow, von Deines, and Westendorf 1954–1973, 7(2):597. For 6) add P. mag Harris 10042, III,8 and IX,5 (after Leitz 1999, pl. 20, n. 5a, the signs could also be read *šd.t*). For the spelling with Gardiner F143A, see Collombert 1995, 205–207.

²³ Gardiner sign F45.

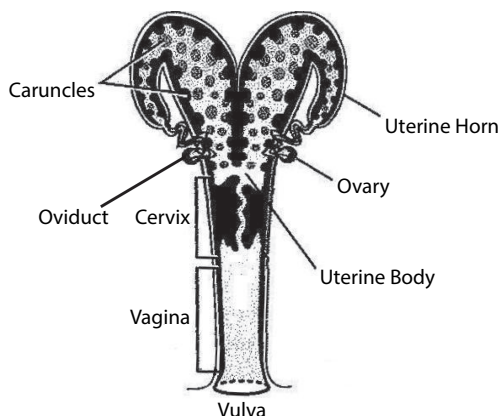


Figure 1: Dorsal view of the uterus of a cow

oviducts and ovaries and a uterine body that opens up to the vagina (figure 1).²⁴ In contrast, the human uterus does not have uterine horns (figure 2).

The *id.t* is described in Ancient Egyptian medical texts as a place in (*m*) or above (*hr*) which suffering can occur. The *id.t* can also be the cause of suffering at different places in the body of a woman. From verbs of treatment it can be seen that the *id.t* has a passage (*rj*), can be forced to descend (*rdj h3j*) from a position upwards, can be cooled (*skbb*), and can be moved to contraction (*s3k*).²⁵ It is also able to shift to the left and right side (see the section 3.6. below). Those descriptions relate to female abdominal suffering in the area of the uterus, oviducts, and ovaries. The texts show suffering caused by problems of the *id.t* occurring in the vagina (*šd*).²⁶ That is why the vagina seems not to be part of the concept of *id.t* in medical texts.²⁷

In magical texts, the term *id.t* is used to designate an organ of goddesses. There is no difference from the descriptions of the human's *id.t* in medical texts. An inner part (*m-hnw id.t*) and a passage (*rj*) exist as well. These texts especially emphasize the role of the *id.t* in pregnancy and birth. P. mag. Harris 501, from the 19th Dynasty, shows that living beings can reside in the inner part of the *id.t*.²⁸

²⁴ See already Frankfort 1944. In Mesopotamia, this symbol is used as a sign for a mother goddess; see Steinert 2017a, 296 f.; Steinert 2017b.

²⁵ Cf. the compilation of sources in Grapow, von Deines, and Westendorf 1954–1973, 7(2):598 f. For *rj id.t* add P. IFAO H 48, v. [x+18–19], 7–8.

²⁶ Eb 817; Eb 818.

²⁷ See also the magical spell in Gyn 2, col. x + II, l. 5 (Guermeur 2013, 14 f.), to be applied for a pregnant woman. It includes an invocation of various parts of her body such as her belly (*h.t*), her uterine complex (*id.t*), her “through the vagina” (*m-šd*), her lap (*imy w3r.tj*), and her thighs (*imy mn.tj*). These shall wake up in peace.

²⁸ P. mag. Harris 501 = P. BM EA 10042, r. 9,5 (ed. Leitz 1999, 46 and pl. 20).

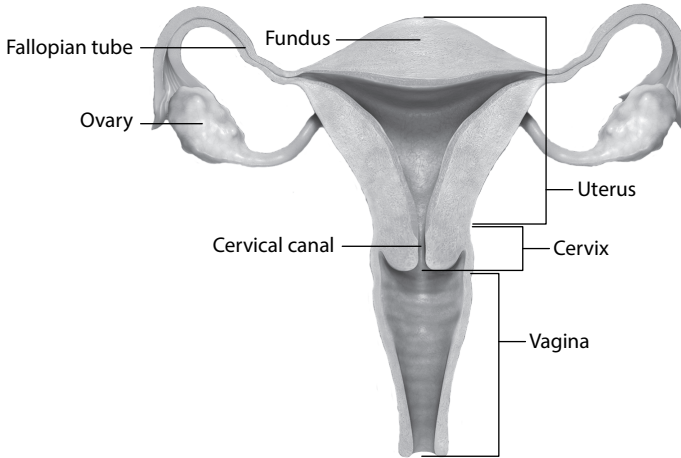


Figure 2: Uterine complex of a woman

ky r;
 i n.tj m-hnw id.t n(j) nj.t
 m wsh.t wd'-md.t
 n; nb.w n(j) p; rsj-n.t mh-n.t
 im-ztn fjj hr-ztn r im.j mw
 wsjr hr mw wd.t hr.w m-dj-zf

Another saying:
 O (you), who are inside the uterine complex of Neith,
 in the broad judgement hall,
 lords of the south and north sanctuary:
 Do not raise your faces against the one in the water.
 Osiris is on the water and the wedjat eye of Horus is with him!

Another example from the same papyrus shows that the passage (*r; n(j) id.t*) can be sealed (*htm*) by a male god²⁹:

... mj htm.tw r; n(j) id.t n(t) 'nt	... just as the passage of the uterine complex of Anat and
'strjtj.t	Astarte was sealed,
t; ntr.t 2.t 't	the two great goddesses,
n.tj iwr nn ms.yzsn	who became pregnant without being able to give birth,
htm-zsn m hr.w	because they were sealed by Horus,
sn'tzsn m sth	after they were covered by Seth

Translators of magical and medical texts commonly restrict the meaning of the hieroglyph **𐀓** (pronounced *id.t*) to the uterus. Accordingly, *id.t* is generally translated as “uterus” or “womb.”³⁰ Indeed, the concepts seem at first glance comparable.

²⁹ P. mag. Harris 501 = P. BM EA 10042, r. 3,8–3,9 (ed. Leitz 1999, 35 and pl. 14). The sense of this passage is highly debated. The passage mentions goddesses from Ugarit and elements from Ugaritic mythology. My translation considers Horus and Seth as opponents, Seth being identified with the foreign god Baal during the Ramesside Period (and already before).

³⁰ Peter Dils offers a note on who translated *id.t* as “uterus” or “womb” in medical texts and who included also the “vulva” when commenting on the term; see P. Edwin Smith 20.15 = v. 3.15 in *Thesaurus Linguae Aegyptiae*, <http://aaweb.bbaw.de/tla/servlet/S02?wc=315842&db=0>. For trans-

However, I prefer to translate *id.t* in medical contexts as “uterine complex,” having in mind a broader Egyptian concept that includes the area of oviducts and ovaries, as well as everything which is associated organically with this area.³¹ There are several reasons. First, the original hieroglyphic sign Υ (pronounced *id.t*) shows not only a uterus but also the vagina and ovaries. The vagina is part of the passage (*rꜥ*) and called *šd*, whereas there does not exist any term related to the *id.t* for the ovaries. The complete internal female sexual organs are shown. Second, in a New Kingdom magical text we find a figurative description of *id.t* referring to other naturalistic images: “your horn (*db*) is tall and that your horns (*wp.t*) are erected like (that of the cow goddess) Sekhat-Hor as horn (*db*) to horn (*db*) and tip to tip.”³² This image is comparable to what the *id.t* sign shows: a horn (*dp*) like the erected part of the sign (the passage) and horns (*wp.t*, Gardiner F13: $\vee$) like the bilaterally branched upper part. Finally, *id.t* is conceptualized as something that actively influences other parts of the body (see the section 3.6. below). This makes it a system of its own, which we call an “organ” in modern times.

Lexicographical data show that the term *id.t* is already present in non-medical texts from the Old Kingdom as an expression for female animals, especially for mother animals.³³ This idea seems to be the source of transferring it to the special organ that is present only in females. In medical texts, therefore, the aspect of the “organ of femininity” might be the exact meaning for *id.t*.

Two sources will be shown to demonstrate the use of the term *id.t* as “female” and more specifically as “reproductive female.” The first is a wall painting that originates from the tomb of Seneb and shows longhorn bulls in the first register, donkeys in the second, and rams in the third (see figure 3).³⁴ Inscribed above the animals is the respective number of male and female adult animals: The first register reads: *ng(ꜥ)* (long horn bulls) 10015 *id.t* (female) 10000. The second register: *ṭꜥ.y* (male) 12017 *id.t* (female) 10200. And the third register: *ṭꜥ.y* (male) 10205 *id.t* (female) 10103. The word *id.t* meaning “female” in this context is marked with a frame.

lation as “womb,” see Grapow, von Deines, and Westendorf 1954–1973, 2:597–600; Walker 1996, 266; Westendorf 1999, 221. The translation as “Vulva, weibliche äußere Geschlechtsorgane” relies on Erman and Grapow 1926–1963, 2:76,1–3 and Breasted 1930, 488.

³¹ Some medical historians have already pointed out that the term may have a broader anatomical meaning than “uterus”; see Kolta and Schwarzmann-Schafhauser 2000, 127–130.

³² See the text reproduced on page 157 below.

³³ Erman and Grapow 1926–1963, 3:76,4–14; *Thesaurus Linguae Aegyptiae*, <http://aaew.bbaw.de/tla/>, WCN 500032. Examples from *Thesaurus Linguae Aegyptiae* are: *id.t ghs.t* (mother animal of gazelle), *id.t nwd.w* (mother animal of antelope), and *id.t imꜥ.t* (mother animal of a female ibex, showing a female ibex): Saqqara, tomb of Ti, chapel, south wall, first register; *id.wt* as mothers of donkeys: Akhmim, tomb Q15 of Qereri, chapel, east wall, part of speech. Gynecological manuscripts from this period have yet to be discovered.

³⁴ Junker 1941, 76–79, fig. 19, pl. VIb.

The second is a wall painting from the tomb of Kaiemankh that shows three mother animals (see figure 4). The one in the middle is giving birth (*id.t ms*) to a calf with the help of a person assisting. On the right we see the milking process. In these types of sources, *id.t* means specifically the reproductive female.³⁵ This meaning of a reproductive female or mother animal is the most common in non-medical texts, as well as in later times. In a different spelling with a classifier of a cow it has the meaning of “cow”.³⁶

All in all, the overarching concept of *id.t* in our sources involves more than a uterus. In ancient Egypt, *id.t* was a marker for femininity and everything that is specific to sexually mature females: being reproductive, giving birth, giving milk. The organ, which in medical texts is characterized by the flesh classifier *ṣ*, consisted of the uterus, oviducts, ovaries, and a passage. It was able to influence other parts of the body, and its suffering is mirrored in the suffering of other body parts (for more details, see the section 3.6. below).

2.2. The Term *mw.t-rmṯ*: Uterine Complex, Placenta

The term *mw.t-rmṯ* literally means “mother of mankind”; it is used in rare cases and only in medical contexts. It can certainly refer to the placenta, as Hildegard von Deines found out; this is the case when it is used as a drug in medical recipes.³⁷ In other cases, however, it is used similarly to *id.t*: it is a female body part (Kah 17, L 13) that can move upward; for remedies to bring it down to its place, see Eb 789–94. Other than *id.t*, it is attested only in magical contexts so far and is very rare.

Although the denotation could indicate that the term refers only to a human body organ, it is clearly also used to mean the placentas of animals, as is shown by the placenta of a cat called “mother of mankind of the cat” (*mw.t-rmṯ n.t my.t*). The word *mw.t-rmṯ* is here used in an abstract way as a *terminus technicus*. The use of the cat’s *mw.t-rmṯ* is documented in a remedy “to prevent the graying” (Eb 453). Together with the egg of a bird (*ḡbgw* = raven/crow?), the cat’s *mw.t-rmṯ* should turn the hair dark again after a man shaves. To do this, both drugs have to be incinerated (*snwh*) and put into oil, which is then applied to the head. The process of incinerating, as has been shown, was thought to concentrate relevant properties

³⁵ Cf. also the paper by Collombert 1995, 206: “femelle considérée sous l’angle de la maternité,” “femelle ayant enfanté ou en âge d’enfanter.” See examples from the *Thesaurus Linguae Aegyptiae*, <http://aeaw.bbaw.de/tla/>, with my own translation: *smṣj id.t*: (“to cause the mother animal to give birth”): Saqqara, chapel of Sekhemankhptah, east wall (line 1); *id.t msj(t)*: (“mother animal giving birth”) and *ṣṣr id.t*: (“milking the mother animal”): Giza, west field, tomb of Kaiemankh (G 4561), west wall (line 2f.). On the birth scenes with assistance, cf. Guth 2018, 107–13 (*id.t* translated as “cow”).

³⁶ See an example from *Thesaurus Linguae Aegyptiae*, <http://aeaw.bbaw.de/tla/>: P. BM 10208, 2,14f. (= P. Louvre N. 3079, 111,3): *py k3.w* [2,15] *iwr id.wt* (“the bulls fertilize, the cows give birth”).

³⁷ For *mw.t-rmṯ* as the placenta, see in detail von Deines 1956, 27.

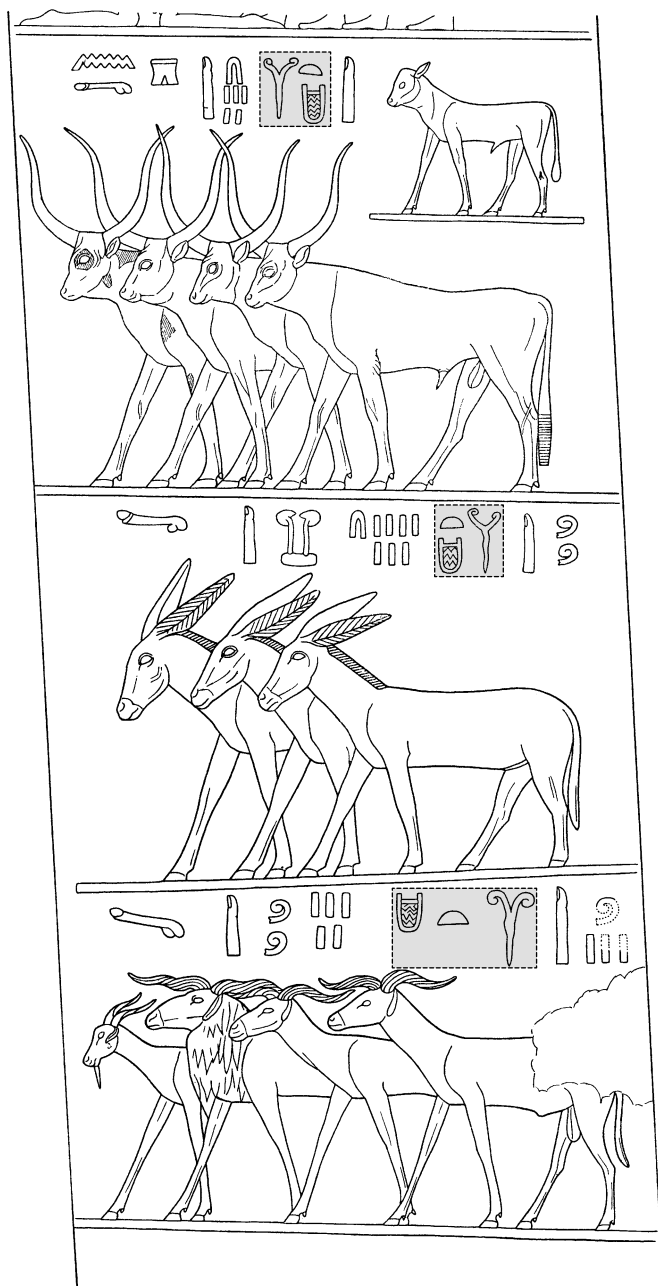


Figure 3: Wall painting, tomb of Seneb, Giza

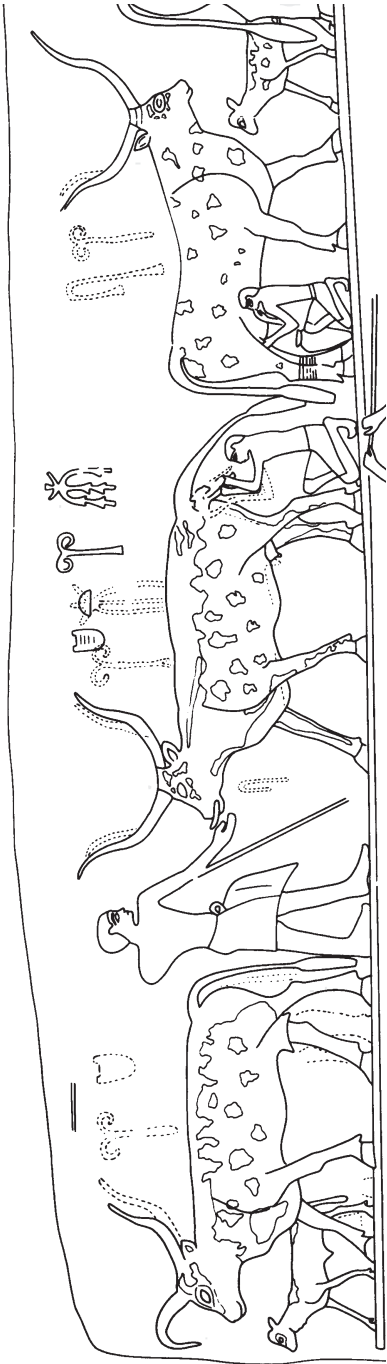


Figure 4: Wall painting, tomb of Kaemankh, Giza

of the raw material and then to replace the missing physical attributes of human body parts.³⁸ Here it is used as a substitute for black hair. As von Deines has already pointed out, both components are symbols for the *status nascendi*, which could be used for rejuvenation. We have to add also the color properties of the animals, which in this case had to be black (as is clear for the bird).³⁹

2.3. The Terms *kꜣ.t*, *iwf*, and *šd*: Vulva-Vagina Complex, Soft Tissues, and Vagina

Three terms with different connotations exist for the area of the vulva and vagina: *kꜣ.t*, *iwf*, and *šd*. Only the latter is applied exclusively to medical texts.

The term *kꜣ.t* occurs in medical texts as the place where treatments for women were applied (*iwḥ*, *wḏḥ*, *rḏj*, *kꜣp m*), such as tampons, uvulas, fumigations, medicinal baths, and vaginal enemas.⁴⁰ Furthermore, this is where an embryo comes out (*ḥꜣꜣf m kꜣ.t n.t mw.tꜣf*, “it descends from the *kꜣ.t* of its mother”).⁴¹ It is also a place where sufferings can occur (Kah 4; 9). Kah 4 describes a woman suffering in her pubic region (*kns*), her *kꜣ.t*, and the surroundings of her *kꜣ.t*. In two prescriptions, the *kꜣ.t* of a female greyhound, as well as her *kꜣ.t*-blood, are used as drugs (Eb 460; pHearst 10,18). It is clear from these sources that *kꜣ.t* denotes the external female genital organs (vulva) and includes the vagina.⁴² The overarching concept behind the word *kꜣ.t* is the vulva-vagina complex, and translation as “vulva”, “vagina” or even “vulva-vagina complex” seems appropriate, depending on the context. This translation fits references outside the medical text corpus as well, regardless of the period in which they are attested.

In mythological narratives, the *kꜣ.t* plays a role as the sexual organ of goddesses. For example, in the tale of Horus and Seth, the cow goddess Hathor uncovers her vulva in front of the Lord of All (*kꜣf kꜣ.wtꜣs r-ḥꜣꜣf*).⁴³ In the Delta papyrus (26th Dynasty), Re grasps both hands to build a vagina (*ꜣm Rꜣ.w ḏꜣr.wj is ḥꜣr irj.t kꜣ.t*), which he then uses for self-masturbation, which results in creation of the gods Shu and Tefnut.⁴⁴ In a spell in the religious Pyramid Texts from the Old Kingdom (PT 685, §2065a/b, 6th Dynasty), the vulva-vagina complex (*kꜣ.t*) of Tefnut is used as the counterpart of the penis (*ḥnn*) of Shu:

³⁸ Pommerening 2017b.

³⁹ Leitz 2005, 54 f., 56 f.

⁴⁰ Cf. the compilation of sources in Grapow, von Deines, and Westendorf 1954–1973, 7(2):894 f.

⁴¹ P. Ramesseum 4 = P. BM EA 10757, C 15–16 (edition see table 1).

⁴² Grapow, von Deines, and Westendorf 1954–1973, 7(2):894 suggest the two translations “vagina” and “vulva”.

⁴³ P. Chester Beatty I, r. 4,2 (Horus and Seth), 19th Dynasty (ed. Gardiner 1931, pl. IV/IVa).

⁴⁴ P. Brooklyn 47.218.84, x+3,10 f. (Delta papyrus), 26th Dynasty (ed. Meeks 2006, 9, pl. 3/3A). For further evidence of the masturbation episode, see Bickel 1994, 72–75; Orriols-Llonch 2015, 839–842.

<i>mz:k <w>j ppy nfr-k3-r'w pn</i>	Behold myself this Pepy Neferkare,
<i>i:sn.tj rd.(wj)z:f(j) in mw w'b.w</i>	whose feet were kissed by the pure waters
<i>wnn.w hr (i)tm(w)</i>	which exist with Atum,
<i>irj hnn šw</i>	who made the penis of Shu,
<i>shpr k3.t tfn.wt</i>	who created the vulva-vagina complex of Tefnut.

In Ptolemaic times the vulva-vagina complex is still the female body part that is essential to help males to create new beings, as is shown by an inscription in the temple of Edfou (Edfou VII, 115,16–116,4):

<i>hmk bw dd-mdw</i>	To present lettuce. To be pronounced:
<i>'bw hrz:k i'b.tj r hft-hrz:k k3</i>	The lettuce is for you, which is offered before your face, bull of
<i>k3.w k3 nb ndmndm</i>	bulls, bull and lord of sexual pleasure.
<i>h'f nzk sw hr ir:t i'bjt:zk</i>	Take it and do what pleases you,
<i>h'jz:k smi:zk nfr.wt</i>	being happy and copulating with the beautiful.
<i>ntk k3 stj stj rnn.wt</i>	You are the (semen) shooting bull who impregnates the heifers,
<i>ts mw m k3.t r shpr sw'h.t</i>	who ties the semen in the vulva-vagina complex to bring into
	being the egg.

The second term, *iwf*, is used in a manner similar to *k3.t*, as the place of application for vaginal therapeutics, although it literally means “flesh.” The common usage in a medical context is: “to be put (*rdj*) into her *iwf*” (Eb 783, 806, 813c) or “to be poured (*wdh*) into her *iwf*” (Eb 798, 805, 813–30, etc.). But we have to be careful. All these *iwf*-attestations in P. Ebers are written only with the sign Gardiner F51 (s), without any complements. We might read *iwf*, but there is no logogram stroke, so the sign could also be an abbreviation for *k3.t* (which we find at the beginning of a new section, Eb 802). On the other hand, the complemented version of *iwf* appears in other papyri and contexts (L 29, L 30, Sm 21,3, Clb 4, Clb 5).

One of the common views is that *iwf* is a euphemism for *k3.t* (vulva-vagina).⁴⁵ In fact, however, if we read Gardiner F51 (s) as *iwf*, this word would be used only in passages about internal applications. Even the few attestations that use the sign in the context of fumigations emphasize the intrusion (Eb 795, Sm 21,3 [full spelling *iwf*], Eb 793). The term *iwf* would then be the vagina and not the vulva, which some translators prefer.⁴⁶ Besides, while *k3.t* is associated directly with creation and birth and is conceptualized as an organ that can suffer, *iwf* is not. The use of the word emphasizes the soft tissue, so translation as “soft tissue” seems adequate.

The third term, *šd*, in contrast to *k3.t* and *iwf*, occurs only within what we would call physiological descriptions in modern terms. *Šd* is not the designation of an application area for drugs.⁴⁷ In everyday texts, the same root describes a mortar, and

⁴⁵ Walker 1996, 47 f.; Grapow, von Deines, and Westendorf 1954–1973, 7(1):31, B: “‘Fleisch’ als Euphemismus zur Bezeichnung des weiblichen Geschlechtsteiles.”

⁴⁶ Westendorf 1999, *passim*; *Science in Ancient Egypt*, Website of the Sächsische Akademie der Wissenschaften zu Leipzig. <https://sae.saw-leipzig.de/de/startseite>.

⁴⁷ Grapow, von Deines, and Westendorf 1954–1973, 7(2):873.

the word includes the determinative for a stone.⁴⁸ The idea behind its use in medical contexts seems to be the correspondence of the vagina-vulva complex with the image of a lipped container and the penis with its pestle. The combination with the word “lips” is attested for vessels and the vagina-vulva complex *šd*.⁴⁹ One result of the force and friction used when crushing spices in a mortar can be its damage, metaphorically transferred as source domain to the vagina *šd*. If one wants to reactivate this idea, the translation “mortar (vagina)” might be helpful. But *šd* is usually translated as “vagina” in medical texts.⁵⁰ The term *šd* is mentioned several times in combination with *id.t* (see above).

Another term related to female body parts is *kns*, which refers to the pubic area.⁵¹ Contrary to the other terms, it is not a gender-specific word. The same is true for *bn.tj*, which refers to the nipples of men and women and to the female breasts.⁵²

The analysis of terms for the female body parts/organs/systems presented here not only shows which body parts Egyptians identified and distinguished; it also gives an idea of the concepts behind these terms and how they were formed. The terms *šd*, *mw.t-rmt*, and *iwf* are figurative and seem to have entered the field of medical texts as new technical terms that offer new aspects that were not previously conceptualized. The terms *id.t* and *k.t* have a broad use outside the medical context and a strong link to mythological ideas. The analysis of these terms has already provided a first insight into bodily concepts based on denomination and semantics.

3. Concepts of How the Female Body and Its Organs and Substances Interact

This section presents six concepts in a discourse-based manner.

3.1. The Female as Container

In conceptual metaphor theory, the image of the “body as a container” is a widely used metaphor across space and time, so it is not surprising that it is very prom-

⁴⁸ Erman and Grapow 1926–1963, 4:566,11–13.

⁴⁹ Eb 817: the two lips of her vagina: *sp.tj šdꜥs*.

⁵⁰ Grapow, von Deines, and Westendorf 1954–1973, 7(2):873: “(weibliche) Scheide”; “‘Mörser’ als bildlicher Ausdruck für die Scheide”; Erman and Grapow 1926–1963, 4:566,14: “(der weibliche Geschlechtsteil)”.

⁵¹ For a discussion of the word, see Grapow, von Deines, and Westendorf 1954–1973, 7(2):907 f.

⁵² Grapow, von Deines, and Westendorf 1954–1973, 7(1):247 f.; Erman and Grapow 1926–1963, 1:457,11–14; Walker 1996, 268.

inent in various sources from the entire pharaonic period.⁵³ Female humans and animals as well as gods are conceptualized as passive containers for the semen of males.⁵⁴ This example from the Pyramid Texts (6th Dynasty) focuses on the world of the dead king, who is integrated in the world of gods: *dj.n=k s(j) tp hms=k/prj mtw.t=k im=s*, “You (Osiris-Pepi) gave her (Isis) onto your penis,⁵⁵ so that your semen comes forth into her.”⁵⁶ As a result of having the penis of the dead king (as Osiris) inside Isis while ejaculating, their son Horus is born as the new living king.

The impregnation by Osiris is documented in different versions.⁵⁷ Common to all of them is that Osiris is dead and his body parts are spread all over Egypt. By reassembling them, Isis finds the penis, and conception can take place. Horus is born as a result. The versions differ. One of them can be found in the mythological handbook of the so-called Delta papyrus⁵⁸:

(x+11,1) <i>sjmn.n=s d.t ntr m iwf</i> ⁵⁹ <i>s</i>	She (Isis) caused to hide the divine penis (of Osiris) in her soft tissues (vagina).
<i>snsn=s (x+11,2) f im=s mj wn=f</i>	He unified with her as if he would (still) exist.
<i>wdj.n mtw.t=f stp.(t) r bt.t=s</i>	His selected semen placed itself into her womb. ⁶⁰
<i>msjs hr.w m-hnw dd.t (...)</i>	She gave birth to Horus in Mendes (...)
(x +11,3) <i>wn.jn stš hr wdj kn r ntr.t</i>	Then, Seth caused harm to that goddess
<i>tn m im.(t)-ph.(wj)t</i>	in Imet-pehet.
<i>wnn=f hr djs m hwtf</i>	He violated her and used force.
<i>{s}h.n=s (x+11,4) m bk; n mtw.t=f</i>	Thereupon she became pregnant from his semen.

⁵³ Lakoff and Johnson 1980, 29–32; Kövecses 2010, 202–206. It can be found in many languages, even today. For the metaphorical concept of the body or body parts as container specifically in the Coffin Texts, see Nyord, 2009, 335, 355–417. For the eye as container see Gräßler 2017, 329–330 and, in conjunction with the emotion anger, Köhler 2016, 107–108.

⁵⁴ Coming from the topic of menstruation, Frandsen 2007, 100–104, points out that women as well as the sarcophagus and tombs have been seen as containers or houses connected by their transformational space. Reading the word *št.t* as a metaphor for womb in P. Salt 825, he specifically demonstrates the connection between a jar shown as a vignette and the word *št.t* (Frandsen 2007, 101, fig. 1); cf. Spieser 2018, 87, fig. 2. From Greco-Roman times there is also the link between “female” (*id.t*), “encircle” (*mhn*), “egg” (*swḥ.t*), “womb” (*št.t*), and “vessel” (*krḥ.t*); cf. Frandsen 2007, 103. The generic meaning of the term *krḥ.t* is “vessel.” For the vessel *krḥ.t* being the personification of a mother goddess and the vessel of the god Khnum, in which he is modelling humans, already in the Old Kingdom, see Spieser 2018, 85–86.

⁵⁵ Rare word; for the translation, see Erman and Grapow 1926–1963, 3:99,8; Walker 1996, 272.

⁵⁶ PT 366 § 632b–c (ed. by Allen 2013, III).

⁵⁷ A very detailed one is CT spell 148, in which Isis wakes up pregnant (*bk;t*) with the semen (*mtw.t*) of her brother Osiris. She introduces herself as Isis, sister of Osiris, whose semen (*mtw.t=f*) is now within her belly (*h.t*), and that she tied the form of a god as an egg (*swḥ.t*). This statement is repeated in different contexts with similar words. The belly (*h.t*) and uterine complex (*id.t*) are used as synonyms in this context. For text and discussion, see O’Connell 1983.

⁵⁸ P. Brooklyn 47.218.84 (x+11,1–4, excerpt), 26th Dynasty, (ed. Meeks 2006, 23 f., pl. II/IIA).

⁵⁹ Written with consonant signs and not only with the logogram.

⁶⁰ Rare word for womb; see Sauneron 1963, 57–59; *Thesaurus Linguae Aegyptiae*, <http://aaew.bbaw.de/tla/>, WCN 856565 (“Gebärmutter”); Mathieu 2012, 510(j).

hpr.nzf m dhw.tj-prj-m-wp.t
h'.n spr.nzs r (i)h.t nn km{n}zs
dmd.ytzs tn

s'(i)zs rdj.(w) r mw
 (x+11,5f.) *gmj.n s(w) gm.t m mw*
m in'
nn kdjw.n.twzf im.wtj rdw.w <m>
mk.tzf
wn.nzf m h.t n.t(t) s'(i)zs imzs
nn msj.twzf mj (x+11,6) ntr.(w)

He had become 'Thoth who came out of the horns'.⁶¹
 Thereupon she came to the thing (= decision) that she would not complete this her appointed time (= end of pregnancy).
 Her amniotic sac⁶² was given into the water (= abortion).
 (But) the black ibis found him (Thoth) in the water as a baboon.
 He had not yet been fully formed in the midst of the efflux (amniotic fluid) <for> his protection,
 after he had existed in the belly (= womb) in which the amniotic sac was.
 (So) he could not be born like (the other) gods.

This text is of utmost interest because it also gives an impression of how the shape of the baboon god Thoth was explained in the seventh century BCE. Thoth was conceived as a result of the violation of the goddess Isis. The pregnancy was terminated, and the amniotic sac was placed into the water (which is one of the ways to kill living creatures). The amniotic sac with its content was found by an ibis, a symbol of Thoth, and the creature in it was a baboon, also a symbol of Thoth. The terminology used here for describing a kind of abortion with words that we can easily translate as "amniotic sac" and "amniotic fluid" is novel, as well as the textual attestation of the idea that a creature like an ape develops because the time of pregnancy is shortened. The role of the female described here is a passive one, with two exceptions. She is responsible for terminating the pregnancy (in the second part of the story), and gives birth (in the first part).

The idea of women being passive and, in short, a container for children is part of one of the harpers' songs: *ty.w hr wtt/ id.wt hr šsp*, "Males keep generating, / females keep conceiving."⁶³ The idea is also attested concerning animals in the 19th-Dynasty rock stela of Seti I at Nauri (Nubia): *k:(w) hr pty.t/ id.wt hr šsp h:ww*, "Bulls keep fertilizing, / cows keep conceiving surplus (?)."⁶⁴ The idea of females being containers is also inherent in the Egyptian word *iwr*, which we translate with "being or becoming pregnant", as it also has the meaning "to conceive" (with the child as an object), at least in the Pyramid Texts and the Book of the Dead.⁶⁵ In this kind of literature, the idea of conceiving a whole person was very present.

⁶¹ For an explanation of this episode, see Meeks 2006, 114–115, 256–258.

⁶² This word is only attested in P. Brooklyn 47.218.84 (x+10,3, x+11,4, x+11,5), and in the *mamisi* of Ermant, cf. Meeks 2006, 107 f. (no. 316 "Toeuf et ses annexes"); *Thesaurus Linguae Aegyptiae*, <http://aaw.bbaw.de/tla/>, WCN 856445 ("Fruchtblase").

⁶³ Tomb of Neferhotep (TT 50), first song of the harpers (third song of Neferhotep in his tomb), 18th Dynasty (Horemheb), (ed. Hari 1985, 38, pl. 26, lines 4–5).

⁶⁴ Griffith 1927, 199 (*id.t* translated as "herds"), pl. 40, lines 20–21. This sentence appears in the context of the king depicting himself as economically successful.

⁶⁵ Cf. Allen 1984, 552 §736. Because these kinds of religious literatures have a distinct form of language, and because their usage changed in other contexts, it is possible that the ideas of preg-

The idea, that the woman is a passive container, can even go so far as to indicate that she is considered responsible neither for feeding the child in the womb nor for its birth. This is the case when creator deities are described as responsible for every act of creation, as in the Great Hymn to Aten from the tomb of Eje at Amarna (line 6) in the 18th Dynasty⁶⁶:

<i>šhpr mw m hm.wt</i>	(Aten, ...), who allows the semen to come into being into women,
<i>irj mw m r(m)t.w</i>	who turns semen into human beings,
<i>s'nh s; m h.t n mw.tzf</i>	who causes the son to live in the belly of his mother,
<i>sgrh sw m tm.t rmy.wzf</i>	who silences him with that which quiets his tears.
<i>mn.t m h.t djy t;w r s'nh irj.tzf nb</i>	Nurse in the belly, who gives breath to animate all that he has created.
<i>hijzf m h.t r tp(r).t hrw msw.(t)zf</i>	When he (the human being) descends from the belly to breathe on the day of his birth, you open his mouth completely and provide for his needs.
<i>wpjzk rzf hr-kd irjzk hr.tzf</i>	

Passages, showing that creator deities regulate the process of anthropogenesis until birth, are found in medical texts, too, as the following coherent concept in a magical spell demonstrates⁶⁷:

<i>ink [tm] šw tfn.t it ntr.w⁶⁸</i>	I am [Atum], the god father of Shu and Tefnut,
<i>šhpr id.t</i>	who brought into existence the female,
<i>km; m ty</i>	who created the male,
<i>rdj k; tw n imy-h.t hr mshn.t twy n.t tm.w</i>	who causes that the breath of the one in the belly (= embryo) enters to that birthplace of Atum,
<i>imj.t šw tfn.t (...)</i>	where Shu and Tefnut are. (...)

Unfortunately, the beginning and end of the spell is missing, but it seems quite certain that Atum, the first creator god in the Heliopolitanian creation myth, is cited here.

This passage makes clear that not only is Atum the first creator of the following sexually differentiated creatures, he is also responsible for the process of birth. The woman does not give birth actively, and the embryo does not actively enter the birthplace, which is called Mesekhenet, the name of a goddess of birth and of the bricks that were used during childbirth.⁶⁹ Instead, we learn from this concept that the breath (“air”) of the embryo (“what is in the belly”) was most significant. The mythological archetype for a successful birth is the male god Shu, who is associated with air, and the female goddess Tefnut, who is associated with moisture. This

nancy changed as well. For the change of concepts concerning eye parts in different text genres, see Gräßler 2017, 173–190.

⁶⁶ Sandman 1938, 94; cf. Assmann 1999, 219 no. 92.

⁶⁷ P. Louvre E 32847, v24,1–v24,4, see table 1. Cf. Bardinet 2018, 246.

⁶⁸ Hierarchical conversion.

⁶⁹ On birth bricks, see Roth and Roehrig 2002; Wegner 2006; Wegner 2009; Töpfer 2014, 327–332.

constellation is also reenacted in magical spells that were recited during the birth process.⁷⁰

3.2. *The Assumed Passage from the Mouth via the Uterine Complex to the Vagina*

In Ancient Egyptian mythology, numerous documents link the mouth and the vulva. Probably the best known is the depiction of the sky goddess Nut, which can be found in various royal tombs. Nut receives the sun god, depicted in the form of a setting sun, through her mouth. The sun rejuvenates itself on the way through her body and is reborn the next day through her vagina.⁷¹

The idea of swallowing semen can already be found in the Pyramid Texts. Instead of the sun god it is the king who is swallowed in form of semen; in this example from the 6th Dynasty, the king is Merenre (= Nemti-em-za-ef)⁷²:

<i>tꜥpr</i> ⁷³ <i>h.tꜣt nw.t hr mtw.t nꜥr im.tꜣt</i>	Your belly, Nut, will swell by the semen of the god that is inside you.
<i>nmt.j-m-zꜣf mr.n-r'w ; pw mtw.t nꜥr im.tꜣt nw.t</i>	Nemti-em-za-ef Merenre is the semen of the god that is within you, Nut.
<i>i.'m nꜣt nmt.j-m-zꜣf mr.n-r'w mj 'mꜣt zꜣt nꜥr</i>	Swallow Nemti-em-za-ef Merenre as you are swallowing your son, the god (= Re).

A connection between the place where children are created and the mouth becomes obvious in the myth of creation, which describes the origin of the first divine couple, Shu and Tefnut, through the primordial god Atum.⁷⁴ One version, from the 12th Dynasty, describes how their birth took place by Atum spitting or coughing: *išš.n wj itꜣi tm m išš n rꜣf hn' sn.tꜣi tfn.t*, “My father Atum has spewed me out with the spittle of his mouth, together with my sister Tefnut.”⁷⁵ Impregnation through the mouth is also attested in the so-called Tale of Two Brothers. In this story it is told, among other things, that a man (Bata), is turned into a persea tree. His wife wants to get rid of him and causes the cutting of the persea trees. A splinter of wood is swallowed by the woman, at which point she becomes pregnant with Bata (P. D’Orbiney 18,4–8) and gives birth to him.⁷⁶ All three of these

⁷⁰ See, e. g., MuK F in table I (edited by Yamazaki 2003). P. Mag. Leiden = P. Leiden I 348 (see table I) offers spells to speed up the birth (nos. 28–34).

⁷¹ Cf. Pommerening 2006.

⁷² PT 563, § 1416c–1417b (ed. Allen 2013, V). On this motif, see also PT 325, § 532a.

⁷³ Allen 1984, PT 577, § 740.

⁷⁴ For the connection with the mouth, see Bickel 1994, 72–83; Orriols-Llonch 2015.

⁷⁵ CT 76, CT II 3h–4a (after B2L). On spewing and spittle with the word *išš*, see Gräßler 2010. Another version states that Atum received Shu and Tefnut by masturbation; see, e. g., PT 52, § 1248b/c and P. Brooklyn 47.218.84, x+3,10 f. (Delta papyrus); see note 44.

⁷⁶ In this context we can also quote a mythological episode between Horus and Seth (P. Chester Beatty I, 19th Dynasty): Seth rapes Horus during the night. Horus is able to get rid of the semen, and he reacts by implanting his own semen on a lettuce plant, which is eaten up by

examples demonstrate that, in the world of the gods, the uterine complex and the mouth were openly connected.

This leads us to the medical context. Taking a closer look at the topic of testing, it is clear that the connection between the mouth and the vulva had to remain unobstructed. In other words, this idea is a basis for medical procedures. One example is a fertility test⁷⁷:

[ky rh msj.t] r tm [msj.t]	“[Differentiating a women who will give birth] from who will not [give birth].
rdj.hrꜥk sdr t; n hꜥd.w th[b?] [m]	You should then cause the bulb of garlic to spend the night
iwꜥs r hꜥd-t	plunged in her soft tissues (vagina) until dawn.
ir [hpr] stj m rꜥs	If the (garlic’s) odour appears in her mouth,
iwꜥs r msj	she will bear [children].
ir [tm hpr stj? nn msj]ꜥs r n[h]h	If it does not, she will never [bear children].”

It is interesting to think about what happens when tests of this kind appear in other cultures. The first attestation in Kah 28 dates to 1800 BCE. Clb IV gives a similar text five hundred years later. The third book of the Greek Corpus Hippocraticum (*De mulierum affectibus*) hands down to us a section of tests that should show if a woman is pregnant or if she is able to get pregnant at all. These texts are said to date from around 400 BCE, and the similarities with the Egyptian test have already been pointed out.⁷⁸ This next example is very close to the ancient Egyptian text just discussed. What is particularly important for our context is that this is a test for a straightforward connection between vagina and mouth⁷⁹:

Ἄλλο-	Another:
μῶλυζαν σκορόδου	a garlic bulb, clean the head, nip off, put it in the vagina;
περικαθήραντα τὴν κεφαλὴν,	
ἀποκνίσαντα, προσ – θεῖναι πρὸς	
τὴν ὑστέρην,	
καὶ ὀρῆν τῇ ὑστεραίῃ, ἣν ὄζει διὰ	on the next day one will see if she (the woman) smells out
στόματος.	of her mouth.
καὶ ἣν ὄζει, κυήσει· ἣν δὲ μὴ, οὐ.	If she will smell, she will conceive, if not she will not.

A similar test in the Aphorisms explains more clearly why fumigation is practiced through the vagina.⁸⁰ The scent comes from the vagina through the nostrils as long as the woman is not sterile through her own physical guilt.

Seth. Seth himself is thus impregnated by Horus and consequently too weak to win a legal dispute with Horus.

⁷⁷ Clb IV; cf. Kah 28 (cf. table 1).

⁷⁸ Iversen 1939. For the date, see Grensemann 1982. For a more detailed discussion of another Egyptian fertility test (P. Berlin 3038, v. 1,3–4 = Bln 193), and possible steps of transmission into the Corpus Hippocraticum, *De sterilibus* 214, see Pommerening 2010; Pommerening 2015.

⁷⁹ Corpus Hippocraticum, *De mulierum affectibus* (*De sterilibus*), 3.214, lines 9–12; cf. Littré 1853, 8.10–462, retrieved from <http://stephanus.tlg.uci.edu/Iris/Cite?0627:036:334895>; Corpus Hippocraticum, *De sterilibus* 214, 219, 230; cf. Iversen 1939, 21 f.

⁸⁰ Cf. Corpus Hippocraticum, *Aphorisms* V, 59.

From the fact that all known Egyptian methods of contraception required the vaginal application of drugs, it is clear that the idea of conception through the vagina was very probably the usual one in ancient Egypt.⁸¹ The drugs that were supposed to affect the uterine complex (*id.t*) were also normally administered *via* the vagina. This could be done either with fibers soaked in the drug, which were then inserted into the vagina like a tampon, or by means of medicinal baths, vaginal funnels, vaginal suppositories, or fumigation. Fumigation was expected to open, or to keep open, the connection between the vagina and the mouth. The local administration of drugs on the lower body was also practiced by anointing or affixing them to the body with bandages. Drugs could also be administered orally by way of a medicinal tonic or a meal. This was the case if effects were noticed in other parts of the body, which apparently indicated problems originating in the uterine complex. Symptoms, which were thought to derive from profusions, stenosis, secretion, and blockage of the uterine complex (*id.t*) were regarded as such indications. (see the section 3.6. below with table 2).

Should menstruation fail to occur despite the woman not being pregnant, this was attributed to an accumulation of blood on the uterine complex (*šn' n snf hr id.t*) (Sm 20,13–21,3). The remedies were supposed to ensure the exit of the blood. They were applied both locally in the form of ointment in the pubic region (*kns*) and the groin and as fumigations of the vagina (*hnw n iwḥ*), as well as in the form of a potion. Because the cause is clearly seen in the uterine complex, this application highlights the fact that access *via* the mouth to the uterine complex was thought possible.

3.3. *Flesh Formation from Milk: The Contribution of Women to Procreation*

As a parallel aspect of the idea that women are containers in which a child developed from the semen of a man, there was the idea that she also contributed to the child through her own substance for conception while the child was in her womb.⁸² This substance was her milk from which the flesh of the child arose.

A passage in P. Jumilhac, from the third century BCE but possibly traceable back to older documents, mentions semen and milk as the components of the male and female parents⁸³:

⁸¹ Cf. also PT 366, § 632b–c: “You (Osiris-Pepi) gave her (Isis) onto your penis (*dj.nz:k s(j) tp ḥ msz:k*), so that your semen comes forth into her (*prj mtw.tz:k imz:s*)”. Here the procreation of Horus, the son of Isis, is documented. On the vaginal application of drugs, see Kah 21; Kah 22; Ram IV C 2–3, Eb 783; Bln 192.

⁸² On the question of what determines the sex of a child, see Hoffmann 2015.

⁸³ P. Jumilhac XII, 24 f. (ed. Vandier 1961, pl. 12).

<i>wnn r'w dd hr psd.t</i>	Re spoke to the divine Ennead (referring to the god Nemti):
<i>ir iwzf hr inmzf shpr n<(sn)</i>	As for his flesh and his skin: (they) were produced by his
<i>mw.tzf m ir.t.tz</i>	mother from her milk.
<i>ir ks.w (XII,25)zf (hpr>sn)</i>	As for his bones: (They originated) from the semen of his
<i>m- mw n itzf</i>	father.

Here the woman's milk is considered to be a female component of creation. Modern scholars generally link Hippon, a Presocratic philosopher, with this Egyptian passage, because he also attributed the source of bones to the father and the formation of the soft parts to the mother.⁸⁴ Yet Hippon does not clearly state from what original substance the soft parts could have derived.

In an inscription in the Opet temple at Karnak from the time of Ptolemy VIII/Euergetes II, the creation god Amun-Re is called, among other things, "the one who accelerates births (*shh msw.t*) and who gives the north wind (*dj t.w mh.tj*) to the bones (*ks.w*) and the flesh (*iwf*) within the females (*id.wt*)."⁸⁵ It is not absolutely clear that the flesh originates from the mother, but it is safe to assume, given the earlier sources.

A pharmaceutical test (prognosis Bln 193) regarding conception, which was written down around 1250 BCE, already shows the specific Egyptian idea of milk as a substance of procreation. The test is used in order to identify a woman who will give birth in relation to a woman who will not give birth. The test agent consists of two ingredients that are brought together: the milk of a woman who has given birth to a male child and a gourd. We know from other sources that the gourd was a symbol for the semen of the god Seth, and the milk of a woman who has given birth to a male child is a symbol of the goddess Isis. The two drugs together are symbols for elements of procreation.⁸⁶ Yet to name the combination of both parts as procreative substances becomes more important in later times. It is recorded clearly in texts from the Late Period or afterwards, as the excerpt from P. Jumilhac shows. Flesh and bones were components that together comprised a body already in the Pyramid Texts, but a connection to the process of conception can only be established later.⁸⁷

Similar allocations of a male and female contribution to the human being are seen in later theories of conception, and it has still to be examined in more detail whether those are relative universals or whether we have specific ideas that

⁸⁴ VS 38 A 13 (ed. Diels and Kranz 1974, 386); Lesky 1950; Erhard 1939. For modern scholarly assessment, see Sauneron 1960, 25; Yoyotte 1962; Mathieu 2012, 500.

⁸⁵ De Wit 1958, 123; *Thesaurus Linguae Aegyptiae*, <http://aaew.bbaw.de/tla/>, s. v. Karnak, Opetempel, salle du nord (VIII), paroi est, 2e reg, 2e scène.

⁸⁶ See in detail Pommerening 2015; Pommerening 2010.

⁸⁷ Cf. PT 219, §193a–b (Wenis); PT 1064 [P/V/E 44] (Pepy I); PT 412, §725a–b (Neith); P. mag. Harris 501 = P. BM 10042, r. 4, 8–9; Tb 181 (P. Vatican 38600/1+2, line 158); Tb 170 (P. Paris Louvre 3092 + Frgm. Montpellier [P. Neferubenef], line 574). For the concept of flesh and bones in the Coffin Texts see Nyord 2009, 305–306, 335–339.

were transmitted and adapted through space and time. For example, instead of milk, which appears in P. Jumilhac, the material of creation can also be a female sperm (Alcmaeon, Parmenides, Atomists, Babylonian concepts, biblical concepts) or (menstrual) blood (*Corpus Hippocraticum*, Aristoteles).⁸⁸ Some concepts in Galen, for example, attribute the formation of the brain, nerves, bones, gristle, ligaments, tendons, and nails to the sperm of the father, while all soft parts, flesh, fat, and every tissue well-supplied by blood is attributed to the blood of the mother; he bases his claims on the similarity in color of the initial and end products.⁸⁹ In a tractate of the Babylonian Talmud, the father sows the white substance, from which the bones, tendons, and nails arise.⁹⁰ The mother sows the red substance, from which the skin, flesh, and hair are engendered. According to a hadith text (IQ 166), the thicker male sperm creates hard parts such as bones and tendons, whereas the thinner female sperm creates flesh and blood.⁹¹

The Egyptian examples, as well as some from other cultures, show that male and female each made a distinct contribution to the child, with corresponding parts specific to the sexes. The existence of a female procreation part already in the Egyptian New Kingdom is surprising, and, whereas the semen is usually seen as the male part, we can observe that the maternal element of origin remained attached to the particular native theory of procreation. The idea of milk as the basis of skin formation seems to be exclusive to ancient Egypt. And if we take a look at Egyptian pharmacotherapy, milk is one of the drugs often used for skin diseases. The starting point for integrating milk into concepts of creation seems to have been the observation that the fatty part of the milk forms a film on the surface when milk is standing, and this looks like a skin (which is also the German word for it)⁹². This indicates that, already at the time when the various recipes were formulated, the idea might have prevailed that milk is important for the development of flesh and skin.

⁸⁸ For the Atomists, see Lesky 1950, 23–25; Lloyd 1983, 87; Dean-Jones 1996, 148–150. For Babylonian concepts, see Stol 2000a, 8, who assumes that there may have been the idea of a female seed. For the concept in the Bible, see Stol 2000a, 7 f.; Stol 2000b, 98 f. And for menstrual blood, see Lesky 1950, 132 f.; Lloyd 1983, 87 f.; Dean-Jones 1996, 153–160.

⁸⁹ Weisser 1983, 213 f.

⁹⁰ See b. Niddah 31a: “Our Rabbis taught: There are three partners in man, the Holy One, blessed be He, his father and his mother. His father seeds the white [substance] out of which the [child’s] bones, sinews, nails, the brain in his head and the white in his eye are formed. His mother seeds the red [substance] out of which is his skin, flesh, hair, blood and the black of his eye are formed. And the Holy One, blessed be He, gives him the spirit and the breath, the feature of the face, knowledge, understanding and wisdom, eyesight, the hearing of the ear, the speaking of the lips and the walking of the feet” (translation from Kiperwasser 2009, 6–8). For the origin and development of the rabbinical tradition of embryo creation, see Kiperwasser 2009; Schick 2019. For ancient Egyptian contexts, cf. Spieser 2007, 1727 n. 64.

⁹¹ Weisser 1983.

⁹² Bln 163; Eb 104; Eb 109; Eb 111; Eb 499–500 (burns); H 111.

3.4. The Sealing of the Uterine Complex during Pregnancy and Reopening for Birth

Magical incantations that were to be recited during pregnancy help to recover the related concepts about the procedures in the body during the time of pregnancy⁹³:

<i>šn.t id.t</i>	Conjunction of the uterine complex:
<i>h.t twy</i> (10,6) <i>skk.nzs</i>	This belly (of a pregnant woman) it has caused darkness.
<i>dwnz.t n id[t] hj [r] s.t[zt]</i>	You (belly) should stretch out to the uterine complex; descend to [your proper] place. ⁹⁴
<i>imj kjj dbzt skjj wp.tzt [mj] shj.t-hr.w</i>	Cause that your horn (<i>db</i>) is tall and that your horns (<i>wp.t</i>) are erected like (that of the cow goddess) Sekhat-Hor as horn (<i>db</i>) to horn (<i>db</i>) and tip to tip.
<i>m db r db k'(10,7)h r k'h</i>	The entrails of the end of the belly are like [----], since there existed what should exist (= embryo) by the descent of flood into the inside,
<i>mht.w n(j) ph.wyt h.t mj [----]</i>	to seal the opening of the uterine complex,
<i>dr wn.t wn.tj [n] hj.t h'pj r-hnw</i>	as Lower Egypt was sealed behind the tribunal,
<i>r htm r n(j) id.t</i>	as the entrance to a wadi is sealed.
<i>mj htm(w) (10,8) mh.w hr t d:ds:t</i>	
<i>mj htm r n(j) in.t</i>	

An amulet with a knot turned to its left side was attached during this recitation as a magical practice. This concept assumes that the blood normally being lost during menstruation, like the inundation of the Nile, goes inside the belly and is blocked by the entrails, which form a kind of dam blocking the opening of the *id.t*.⁹⁵ Any exudation of blood through the vagina during pregnancy was prevented by this.

Comparison with a Babylonian incantation is appropriate at this point. An incantation for staunching bleeding in women also compares it with irrigation and damming.⁹⁶ These explanatory models make full use of comparisons with daily knowledge from landscapes. Presenting knowledge by way of analogy, metaphor, and daily life associations is most typical not only for Egyptian science, but also for the ancient Near East and Greece, as well as for modern ways of teaching.⁹⁷

To staunch potential or already existing flows of blood, in Egypt as well as in Mesopotamia, incantations were recited, and amulets and tampons were insert-

⁹³ L 33 (10,5–10,8), cf. Tab. 1. Cf. the translations by Leitz 1999, 71, pl. 35; Westendorf 1966, 145–146; Köhler in *Science in Ancient Egypt*, Website of the Sächsische Akademie der Wissenschaften zu Leipzig. <https://sae.saw-leipzig.de/de/startseite>.

⁹⁴ Cf. “the law has descended to its place” (*mtr.t hj.tj r s.tzf*, P. BM EA 10185, r. 8,8); “the land has gone down to its (proper) place” (*p: t: hj.w r s.tzf*, P. BM EA 10243, r. 2,1); “my heart never forgets its place, it remains on its place” (*n hm ib:is.tzf iwzf mn.w hr mk.tzf*, CT VI 176).

⁹⁵ The same concept is clear in L 25 (ed. Leitz, cf. table 1): “Spell of repelling blood” that had to be spoken while a pearl of carnelian was given to the anus of a woman, and in L 27–29, which helped prevent an abortion. Cf. also Leitz 1999, 71 nn. 192, 194; Ritner 1984, 212 f.

⁹⁶ Stol 2016, 446 f.

⁹⁷ Kolta and Schwarzmamm-Schafhauser 2000; Steinert 2013; Steinert 2015; Steinert 2017a; Steinert 2017b; Gindhart and Pommerening 2016; Gräßler 2017, 329; cf. the common source domains in Kövecses 2010, 18–23. See also Wee 2017.

ed.⁹⁸ In addition, in Egypt from the beginning of the New Kingdom, a particular oil stored in vessels in the shape of pregnant women was probably applied to the pregnant woman's body in order to protect the fetus.⁹⁹ What is distinctive about the preserved vessels is their shape, which corresponds to that of a pregnant woman but in most cases without any detailed iconography of the pubic region. Today we explain the lack of this imagery as magically intensifying the protection of the fetus from a premature birth.¹⁰⁰

It would seem reasonable to assume that the Egyptian healers regarded the blood as a nutrient for the growing child, and that they wanted to prevent it from being lost through the vagina.¹⁰¹ This is comparable to the theories expounded in the *Corpus Hippocraticum*, in Aristotle, and in more recent ancient texts, although these are without any mythological background.¹⁰² We cannot, however, conclude that these ideas were transferred from Egypt to Greece only on the basis of these texts, for the observations and the conclusions drawn from them are fairly obvious, such that they can probably be explained phenomenologically. There is no trace in any later theory of what was at the core in the Egyptian texts. They focus on the Nile as the life-giving water and relate this to the physiology of bodily fluids.

When birth was initiated, the passage between the uterine complex and the vagina had to open again, and the child had to be separated from its mother. During this step, the mother's bound hair was untied.¹⁰³ Specific prescriptions with a corresponding title are preserved, such as "Separation of a child from a woman's body" (Eb 800, *k.t.-remedies* 801–7; Ram IV C 28–30). A special case of intentionally sealing the uterine complex (*id.t*) is the mythological precedent of the pregnant deities Anat and Astarte in an incantation. Their uterine complex (*id.t*) was sealed by Horus such that they were not able to give birth after an intercourse with Seth.¹⁰⁴

Besides these explanatory models and resulting possibilities to influence the health of the pregnant woman and her embryo, the medical papyri sometimes contain statements about how to recognize pregnancy. The physical symptoms named are quite clear and completely expected: swollen breasts (Kah 26), vom-

⁹⁸ For New Kingdom Egypt, see spells L 25 to L 30 (see table 1, Leitz 1999, 67–70, pls. 34 f.); cf. Ritner 1984. For Greco-Roman times, see the in-depth discussion of uterine and other amulets by Marino 2004. For Mesopotamia, see Steinert 2013; Steinert 2015, 21 f.; Steinert 2017a, 318–320, 341; Stol 2016, 446 f.

⁹⁹ Paris, Musée du Louvre E 11268; N1105; E 27206; London, BM EA 65275.

¹⁰⁰ Brunner-Traut 1970; Spieser 2004, 56 f.; Budin 2011, 272 ff.; Noblecourt, 1952, 49–67.

¹⁰¹ Cf. Leitz 2000, 134 f.

¹⁰² For the individual theories in *Corpus Hippocraticum* and Aristotle, which also differ from one another, see the detailed monograph by Dean-Jones 1996, 200–224.

¹⁰³ Staehelin 1970; Wendrich 2006; Ritner 2008.

¹⁰⁴ Cf. P. mag. Harris 501, discussed above (page 141). For the Ugaritic origin of the myth of Anat and her infertility, see Marsman 2003, 210 f.

iting (Kah 27), pulsating in the abdomen (Kah 29), fresh-looking skin (Kah 31), the nonoccurrence of menstruation (Sm 20,13–21,3), etc.

3.5. Milk Formation from Blood or the Other Way Around?

No record of the lactation of a pregnant woman's body has survived from ancient Egypt, at least not in a medical treatise. Yet some other sources yield information about possible current views. A prescription in P. Ebers indicates that the place where milk, or at least specific elements of milk, is formed is supposed to be in the backbone, at least if one assumes a medication based on sympathetic principles in this prescription: *inj.t irj.t n mn.t šd.t hrd / i.t n.t h; snwh hr mrh.t gs i,tz im*, "To bring forth the milk of a nurse who feeds a child: / Spine of Nile-perch, fried in oil/fat, her spine is anointed therewith."¹⁰⁵

A gynecological teaching text (cf. table 2, s. v. Eb 833) deserves special mention. It offers a recipe for a woman who has spent many years without menstruating. She vomits something like flood water (*hbb.t*), and her belly (*h.t*) is like something on fire. The fire stops after vomiting. The text explains that these symptoms are the result of rising blood in the uterine complex. A medical reenactment of the symptoms is produced by heating milk together with bone marrow from the lower leg on a fire.¹⁰⁶ This is used to simulate the symptoms, physically as well as visually. This performance could suggest that milk was thought to be transformed into blood in the uterine complex, because after heating the milk, a mixture of juniper berries, cumin, frankincense, and tigernuts was added. These ingredients gave the milk a brownish-reddish color, comparable to the bodily fluids that went in the wrong direction. Drinking such a mixture (*simila similibus*, including the process-es) would cure the issues from an emic point of view.

Both, blood and milk were clearly identified in incantations with the inundation of the Nile (Hapy) and compared to this in their effects¹⁰⁷:

k.t šn.t wbd.t hrw tpy
s:z t hr wbd{.t} hr dšr.t m hnw
s.t nn mw imz
mw m rzi (11,1) h'py imj.tw
mn.tyzi

Another conjuration of a burn on the first day:
 [N. N.:] 'Thy son Horus is burnt in the desert within a place
 where there is no water.
 [Isis:] 'Water is in in my mouth and a Nile flood is between
 my thighs.

¹⁰⁵ Eb 836, cf. table 1. Grapow, von Deines, and Westendorf 1954–1973, 5:490. This can be compared to the sources or results (or both) of semen – namely, the bones – starting with a seventh-century BCE text from the Hibis temple of Amun-Re (Kharga Oasis); see Davies 1953, pl. XXXII (lines 16–17); cf. Klotz 2006, 149 f., pls. 9, 24; Mathieu 2012, 500. For further attestations of a connection between bones and semen, also in Greek sources, see Sauneron 1960; Yoyotte 1962; Klotz 2006, 151 f. For the term *i:irj irj(.t) mw m ks.w* ("who forms semen to bones"), see Quack 1995, 115.

¹⁰⁶ For this theory, see Pommerening 2017b.

¹⁰⁷ L 35 (10,14–11,2) (ed. Leitz 1999, 73, pls. 35 f.).

iy.nzi r hm h.t šp.tw wbd.t
dd.tw r pn hr irt.t n.t msj.t tȳ
 (11,2) *ḳmy.t šnj n my.t wdj.w*
r wbd.t

Herewith I have come to extinguish the fire.' Flow out, burn!
 This incantation is to be spoken over the milk of a woman
 who has given birth to a boy, [and over] resin and cat's hair;
 [these] are to be placed on the burn."

According to this incantation, "the milk of a woman who has given birth to a male child" is symbolically connected with the water (*mw*) in the mouth, and the Nile inundation between the thighs of Isis. The bodily fluids of the goddess Isis emerge here from her mouth and thighs. The passage between mouth and vulva becomes obvious again. A fire extinguished by milk is symbolized with the three drugs: milk (white), resin (red = fire), cat hair (grey-black = burn, burnt, ash). Milk is here an outflow from both parts of the body and thus again either the starting material for blood or the end product of blood.

In another text (Eb 500), the milk of a woman who has given birth to a male child is precisely identified with flood water (here *njw.t*).¹⁰⁸ The inundation water serves in these texts and in the mythological precedents to quench out a fire. Similarly, milk, by analogy, is supposed to soothe burns. For this purpose, the milk was applied externally, sometimes together with other substances. These texts reveal that the extinguishing water was transferred through the mouth and through the vagina. Breasts are not part of this concept.

The association of milk and blood with the nourishing Nile flood and their assumed location in the uterine complex suggests that milk was assumed to be available as a nutrient to the fetus in the womb. This is also supported by the fact that milk was considered to be a female forming substance for flesh (see also P. Jumilhac, discussed on page 155 f. above). If this idea is combined with the observation that blood normally does not flow (or flood) during pregnancy, an explanatory model quickly emerges that milk during pregnancy is produced from the blood otherwise present, or that the blood itself serves as food for the unborn child in the womb. Because blood usually did not have positive connotations in Ancient Egyptian medical concepts while milk did, one might think that blood would have served to feed in the form of milk, which became nourishment for the infant at the time of birth.¹⁰⁹ In connection with these ideas, bleeding during pregnancy would have been a sign that the fetus was not receiving enough nourishment, which con-

¹⁰⁸ This association of milk with the Nile was probably based on the observation of the particles in the flood water, which nourish the land, making it fertile for agriculture. Because the nourishing flood is brownish-reddish in color, it is compared with menstrual blood. The cycle of the Nile flood was transferred easily to the regular "flooding" of a woman.

¹⁰⁹ The connection between the absence of menstruation and pregnancy is made explicit in texts. In the Tales of the Prince Setne Khaemwas, his wife Ahwere describes the pregnancy as the absence of menstruation: "When my time of purification arrived, I did not purify." The same connection is explicit in the texts of the Esna temple; see Sauneron 1962, 209 and 201. Egyptian society regarded women impure during menstruation. The designation for menstrual bleeding is *ḥsmn*, literally "purification," as in Greek. For a detailed insight into terminology and text evidence for a menstrual taboo in ancient Egypt, see Frandsen 2007.

sequently harmed its development. These physiological characteristics were used diagnostically in the prognosis of pregnancy.¹¹⁰

In the end, we cannot determine whether the ancient Egyptians ever understood mother's milk to be created from blood, as it was understood in some discourses of the Greco-Roman, Arabo-Islamic, and medieval worlds.¹¹¹ But we have some evidence that concepts of milk production, the transformation of milk and blood, and the regulatory processes in the body formed the background for the selection of remedies, the association with mythological precedents in the divine world, and the creation of magical spells and practices.

3.6. The Uterine Complex as Explanatory Model for Suffering in the Female Body

A special feature of the gynecological teaching texts is that, apart from anomalies of fertility, pregnancy, and birth, they also deal with general symptoms of women. These cases of illness are mostly attributed to the uterine complex (*id.t*). The texts follow a scheme typical for teaching texts, exemplified here in Kah 8 (see table 1):

<i>šš:w s.t hr mn nh.d.t:s</i>	Instruction (in the case of) a woman who suffers in her neck,
<i>kns:s 'nh.wy:sy</i>	in her pubic region, and in both ears.
<i>n sđm.n:s md.t</i>	She cannot hear any speech.
<i>đđ.hr:k r:s</i>	Consequently, you say of it:
<i>nr.yw pw n id.t</i>	"It is shocks of the uterine complex."
<i>ir.hr:k r:s mitt n tñ</i>	Consequently, you make for her the same, namely that phar-
<i>phr.t n.t dr šw n id.t</i>	makon for expelling the profusion of the uterine complex.

The symptoms are listed first: she "suffers in her neck, in her pubic region, and in both ears." These are followed by the determination of the cause: "shocks of the uterine complex."

By listing the cases from gynecological teaching texts (see table 2), we can establish a constant pattern: "Instruction (in the case of) a woman who suffers on the symptom A, B, C, etc." (*šš:w s.t hr mn*), and the cause D, introduced by "Consequently, you say of it" (*đđ.hr:k r:s*).¹¹² In most of the cases, the medical condition is due to the transformations of the uterine complex (*id.t*).¹¹³

Passage	Symptom A, B, C, etc.	Cause D
Kah 1	she cannot see and is suffering in her neck <i>n m:t.n:s hr mn nh.b.t:s</i>	it is discharges of the uterine complex in her eyes <i>h'w pw n id.t m ir.ty:sy</i>

¹¹⁰ Kah 16 (pregnancy fails if menstruation occurs regularly).

¹¹¹ Dean-Jones 1996, 215; Weisser 1983, 253 f., 256–259; Adamek 1968, 91–95. The theories differ in detail but present clear similarities on a basic level.

¹¹² Pommerening 2014, 31–34.

¹¹³ Only the less destroyed attestations are recorded here.

Passage	Symptom A, B, C, etc.	Cause D
Kah 2	suffered from her uterine complex's wandering <i>mr.n id.tꜣs m ḥpj</i>	it is wrappings (?) of the uterine complex <i>nms.w pw n id.t</i>
Kah 3	suffering of her rectum-anal complex, her pubic region, and the calves of her thighs <i>ḥr mn pḥwyꜣsy knsꜣs wꜣb.w n mn.tyꜣsy</i>	it is discharges of the uterine complex <i>ḥꜣ.w pw n id.t</i>
Kah 5	suffering in her teeth and canines, before she knows to [...] her mouth. <i>ḥr mn ibḥ.wꜣs nhḏ.tꜣs n rh.t.nꜣs [...] rꜣꜣs</i>	it is tjꜣ -symptoms ¹¹⁴ of the uterine complex <i>tjꜣ.w pw n id.t</i>
Kah 6	(woman) of which all of her limbs are ill and suffering on the sockets of both her eyes. <i>mr.n 'w.tꜣs nb.t ḥr mn bꜣbꜣ.w n ir.tyꜣsy</i>	it is a constriction of the uterine complex <i>gꜣ.t pw n.t id.t</i>
Kah 7	suffering of both her legs, both her feet after walking <i>ḥr mn rd.wyꜣsy wꜣr.tyꜣsy m-ḥ.t šm.t</i>	it is discharges of the uterine complex <i>ḥꜣ.w pw n id.t</i>
Kah 8	suffering in her neck, in her pubic region, and in both ears. She is not able to hear a word. <i>ḥr mn nhḏ.tꜣs knsꜣs 'nhwyꜣsy n sdm.nꜣs md.t</i>	it is shocks of the uterine complex <i>nrj.w pw n id.t</i>
Kah 10	suffering of her urine as if [...] the urine is <i>ḥr mn mwy.t mj[...] mwy.t ḏꜣḏ [...]</i>	it is discharges of the uterine complex <i>ḥꜣ.w pw n id.t</i>
Kah 11	(of a woman) who only wants to lie down; she neither rises nor lets herself be dissuaded ¹¹⁵ <i>ḥr mrt n dwnꜣs iwꜣs ḥr sdꜣꜣf</i>	it is clenches of the uterine complex <i>ꜣmm.w n id.t</i>
Kah 16	suffering of all of her limbs and on the sockets of both her eyes [...] dark (?) <i>ḥr mn 'w.tꜣs nb.t bꜣbꜣ.w n.w ir.ty [...] skm.t</i>	it is darkening ¹¹⁶ of the uterine complex <i>kmt.w pw n id.t</i>
Sm 20.13–21.3 = v. 3.13–4.3	suffering of her <i>rꜣ-ib</i> , menstruation cannot come for her, you find something in the upper side of her navel <i>ḥr mn rꜣ-ibꜣs n iyj.n nꜣs {m} ḥsmn gmmꜣk (i)ḥ.t m gs ḥry ḥpꜣꜣs</i>	it is obstructions of blood upon her uterine complex <i>šn'w pw n snf ḥr id.tꜣs</i>
Eb 833	woman, who has spent many years without her menstruation, she vomits something like flood water; her belly is like something under fire... <i>s.t ṯt.t nꜣs rnp.wt šꜣ.w n iy.n nꜣs ḥsmnꜣs iwꜣs bꜣjꜣs ṯḥ.wt mj ḥbb.t iw ḥ.tꜣs mj nt.t ḥr sd.t...</i>	it is a raising of blood in her uterine complex. <i>ḥ.t pw n.t snf ḥr id.tꜣs</i>

¹¹⁴ On *tjꜣ*, see Pommerening 2016, 237 f.

¹¹⁵ See Köhler's commentary in *Science in Ancient Egypt*, Website of the Sächsische Akademie der Wissenschaften zu Leipzig, <https://sae.saw-leipzig.de/de/startseite>.

¹¹⁶ Cf. Gräßler 2017, 108.

Passage	Symptom A, B, C, etc.	Cause D
Brk Gyn1, x+V,22– x+VI,2 ¹¹⁷	(of a woman) that gave birth recently, suffering [from her rectum-anal-complex, her pubic region, and the] calves [of her thighs ...m]sj wꜥd hr mn [phꜣs knsꜣs wib.w [n mn.tꜣs ...	it is a discharges of the uterine complex hꜣ'w pw n id.tꜣs
Brk Gyn1, x+VI,8– x+VI,11	suffering greatly in her belly, (...) suffering on the one path beginning on her heart to her pubic region, right or left side; she can't sleep because of it. hr mn h.tꜣs rꜣs (...) hr mn wꜣ.t w'(t) šꜣ' ibꜣs r knsꜣs gs imn ib r pw mj.tt ir.w nn ꜥ.knꜣs ꜥd hrꜣs	it is a šꜣd-move of the uterine complex, after she (the woman) had turned around and suffered in her belly šꜣd pw n id.tꜣs phꜣr.nꜣs mn.nꜣs h.tꜣs

Table 2. Correlations of gynecological diseases with their cause.

The uterine complex could produce secretions/discharges (*hꜣ'w*) that would cause reactions in her rectal-anal complex, her pubic region, and the calves of her thighs (Kah 3 = Brk Gyn1, X+V,22–X+VI,2), but also elsewhere in the body – for example, in the eyes (Kah1) or on the legs and feet (Kah 7). We also find a recipe against mucous substances (*st.t*) (Eb 812) followed by another recipe for a woman in whose uterine complex it eats (*wnm.t*), so that ulcers (*bnw.t*) have developed in her vagina (*šd*) (Eb 813).

The *mt.w*-system – a system which is described in P. Ebers and P. Berlin 3038 to consist of “vessels” that run throughout the body – is not explicitly mentioned in any of the texts. Nevertheless, it seems to be used also as a basis for the ideas of how female substances are distributed. This is obvious by some applications done through the woman's rectal-anal complex (*wdh m phwj.t*).¹¹⁸ Through the *mt.w*-system, the rectal-anal complex was connected to the mouth; as such, it would also have been connected with the uterine complex by the passage from mouth to vulva *via* the uterus (see the section 3.2. above). With these two systems as background concepts, it would be easy to explain the phenomena described at the eyes or feet. For example, obstruction with blood of the uterine passage leads to a lack of menstruation and sufferings of the *rꜣ-ib*-system (digestive system including the mouth) (Sm 20.13–21.3 = v. 3.13–4.3).¹¹⁹ Because those sufferings are described in a different papyrus (Eb 833) as vomiting something like flood water (and not blood!), we can establish an overarching concept that connected the uterine complex with the *rꜣ-ib*-system, which is part of the *mt.w*-system.

¹¹⁷ Parallel to Kah 3 – that is 1500 years older. For a synopsis of both, see Guernmeur 2015–16, 22. In Brk Gyn1 a different writing of *id.t* is used, the same sign (F143A) appears already in L 33 and Bln 192; cf. Grapow, von Deines, and Westendorf 1954–73, 7(2):597 f. (s. v. *hm.t*).

¹¹⁸ Eb 705: “Beginning of the remedies for eliminating the *špn*-symptom that strangulates the body of man or woman”; Eb 784: “Pharmakon to prevent a woman from suffering from her urine.”

¹¹⁹ For *rꜣ-ib* being a system and not a concrete term of an anatomical part or organ, see Russell et al. 2021.

Beyond that, the uterine complex is presented in the medical texts with its active movements that result in suffering, potentially in different places.¹²⁰ It could become dislocated (Brk Gyn 1, x+VI,8–x+VI,11), stenotic (Kah 6), shocked (Kah 8), or clenched (Kah 11). Several recipes have been handed down to prevent the uterine complex from descending to its place, which means it could shift position upward.¹²¹ A peculiarity of the ancient Egyptian uterine system is its mobility not only upward and back down to its place, but also to the right and left. Brk Gyn 1, x+VI,8–x+VI (see table 2), mentions two paths that lead from the heart to the right and left side of the pubic region, which can be hampered by this movement. Concerning the idea of two paths on the left and the right side, a spell from later times, from the corpus of Greco-Egyptian magical papyri (PGM VII, 260–71), is of interest, because it is also used to return the uterine complex to its place:

For the ascent of the uterus: I conjure you, O Womb, ... that you return again to your seat, and that you do not turn [to one side] into the right part of the ribs, or into the left part of the ribs, and that you do not gnaw into the heart like a dog, but remain indeed in your own intended and proper place, not chewing as long as I conjure by the one, who, / in the beginning made the heaven and earth and that is therein. Hallelujah! Amen!¹²²

This spell had to be written on a tin tablet and wrapped in seven colours. It is important to emphasize that, here, as in Egyptian texts, there is only talk of the ascension of the uterus and the possibility of moving to the right and left, not of a “floating” uterus, which seems to be a concept in later times.

All in all, the Egyptians conceptualized the uterine complex (*id.t*) as the central organ responsible for discomfort in a woman’s body and regulating her entire health.

4. Conclusion

Only the most important terms and concepts related to the female body could be discussed in the context of this contribution. A philological approach was chosen for this purpose, starting with a discussion of the terminology in medical texts and moving from there into other discourses. There are quite different attestations for the five terms discussed: *id.t*, *mw.t-rm̄t*, *iwf*, and *k̄t*, as well as *šd. id.t*, *šd*, and *iwf*

¹²⁰ This does not mean that the uterine complex is moving through the body, “floating,” as Suvorov 2004, 144 seems to understand. It is just doing movements of smaller scale upwards and sideways, as also shown by PGM VII, 260–271.

¹²¹ Eb 795: “Pharmakon to cause that the uterine complex of a woman descends to its place.” Cf. Eb 789–Eb 794, which use the word *mw.t-rm̄t* instead of *id.t*. Cf. also the incantation (L 33) discussed on page 157.

¹²² = P. London BM 121. Dat. III./IV. AD. Translation by John Scarborough in Betz 1992, 123 f. For the Greek text and a discussion of similar texts, see Faraone 2003, see also Betz 1997 for the Jewish context. In the Jewish and Greek traditions, the womb covers greater distances, and the concept seems to be different from the Egyptian one.

are attested elsewhere with the same root in different meanings and have created *termini technici* in the context of medicine. In addition, *id.t* is also used as a central part of the body of a goddess in mythological and religious contexts – namely, narratives and hymns praising the autogenesis of the creator god on conception, pregnancy, and birth. The terms *mw.t-rm.t* and *k.t* also serve as drug names and therefore refer specifically to individual body parts. In recipes, they come from animals. In the end, only the term *šd* is used for women, but the small amount of evidence is not meaningful.

The six concepts examined are relatively prominent in the sources over a long period of time. The concept of the woman as a vessel can be regarded as quasi-universal in cultural comparison. Corresponding conceptions can be found in numerous societies. In contrast, the idea that there is a connection from the head to the vulva, which runs through the uterine complex and is at best open when fertility is predominant, is less pronounced in other societies. It is all the more interesting that a pregnancy test based on this idea has moved to the Greek-language Corpus Hippocraticum, and that this corpus even stresses that vaginal-to-mouth permeability – for example, through fumigation – is a sign that the woman cannot be sterile.

It is obvious that more thought was given to the substances of blood and milk. The idea that milk could be a female procreation substance, as it was first grasped in Egypt of the New Kingdom, seems very specific here. It cannot be proven whether the blood that was not excreted during the menstrual period was actually regarded as a nutrient and perhaps even converted into milk. At the very least, it seems obvious that cultures of very different places and times came up with such ideas. The rigorous emphasis on male control – by humans or gods – of the female body is striking, all the more so because the central organ of femininity, the uterine complex, is held responsible for everything that then has to do with suffering.

In the context of these conditions, the mobility of the uterine complex should be particularly emphasized. It does not move through the whole body, as is sometimes thought. Rather, it makes only small movements upward or sideways, thereby causing pain. Furthermore, it can change in its place by contracting, expanding, and cramping. These properties of the womb are also found in the Corpus Hippocraticum, but this has not been further elaborated here.

When collecting concepts on procreation and childbirth in detail we find quite a lot of differences among them. Nevertheless, some ideas seem to be stable over a long time and across different genres. Principally, all the ancient Egyptian concepts relating to the regulation of women were embedded in a consistent and plausible fashion in the mythological and historical worlds. All of the forms of application were in accordance with these concepts. The corresponding ideas thus led to consistent treatment.¹²³

¹²³ I am very grateful to Hans-Werner Fischer-Elfert, Leipzig, Nadine Gräßler, Mainz, and Alexander Ilin-Tomich, Mainz, who have read this paper critically and made suggestions on bibliographical matters.

Bibliography

- Adamek, Gerhard. 1968. "Das Kleinkind in Glaube und Sitte der Araber im Mittelalter." PhD diss., Rheinische Friedrich-Wilhelms-Universität Bonn.
- Allen, James P. 1984. *The Inflection of the Verb in the Pyramid Texts*. Malibu: Undena.
- Allen, James P. 2005. *The Art of Medicine in Ancient Egypt*. New York: Metropolitan Museum of Art.
- Allen, James P. 2013. *A New Concordance of the Pyramid Texts*. 6 vols. Providence, RI: Brown University.
- Althoff, Jochen, Dominik Berrens, and Tanja Pommerening, eds. 2019. *Finding, Inheriting or Borrowing? The Construction and Transfer of Knowledge in Antiquity and the Middle Ages*. Mainz Historical Cultural Sciences 39. Bielefeld: Transcript.
- Assmann, Jan. 1999. *Ägyptische Hymnen und Gebete. Übersetzt, kommentiert und eingeleitet*. 2nd edition. Orbis Biblicus et Orientalis Sonderband, 2. Freiburg: Universitätsverlag and Göttingen: Vandenhoeck & Ruprecht.
- Bardinet, Thierry. 2018. *Médecins et magiciens à la cour du pharaon. Une étude du papyrus médical Louvre E 32847*. Paris: Musée du Louvre and Institut Khéops.
- Barns, John W. B. 1956. *Five Ramesseum Papyri*. Oxford: Oxford University Press.
- Beck, Susanne. 2015. *Sāmānu. Ein vorderasiatischer Dämon in Ägypten*. Ägypten und Altes Testament 83. Münster: Ugarit.
- Betz, Hans Dieter. 1992. *The Greek Magical Papyri in Translation, Including the Demotic Spells*. 2nd edition. Chicago: University of Chicago Press.
- Betz, Hans Dieter. 1997. "Jewish Magic in the Greek Magical Papyri (PGM VII.260–71)." In *Envisioning Magic*. Edited by Peter Schäfer and Hans G. Kippenberg. Studies in the History of Religions 75. Leiden: Brill. Pages 45–63.
- Bickel, Susanne. 1994. *La cosmogonie égyptienne. Avant le Nouvel Empire*. Orbis Biblicus et Orientalis 134. Göttingen: Vandenhoeck & Ruprecht.
- Borghouts, Joris F. 1971. *The Magical texts of Papyrus Leiden I 348*. Oudheidkundige mededelingen uit het Rijksmuseum van Oudheden 51. Leiden: Brill.
- Breasted, James Henry. 1930. *The Edwin Smith Surgical Papyrus, Published in Facsimile and Hieroglyphic Transliteration with Translation and Commentary*. 2 vols. Oriental Institute Publications 3–4. Chicago: University of Chicago Press.
- Brunner-Traut, Emma. 1970. "Gravidenflasche. Das Salben des Mutterleibes." *Archäologie und Altes Testament. Festschrift für Kurt Galling zum 8. Januar 1970*. Edited by Arnulf Kuschke. Tübingen: Mohr. Pages 35–48.
- Budin, Stephanie Lynn. 2011. *Images of Woman and Child from the Bronze Age: Reconsidering Fertility, Maternity, and Gender in the Ancient World*. Cambridge: Cambridge University Press.
- Budin, Stephanie Lynn, and Jean Macintosh Turfa. 2016. *Women in Antiquity: Real Women across the Ancient World*. London: Routledge.
- Collier, Mark, and Stephen Quirke. 2004. *The UCL Lahun Papyri: Religious, Literary, Legal, Mathematical and Medical*. BAR International Series 1209. Oxford: Archaeopress.
- Collombert, Philippe. 1995. "Quelques précisions sur la lecture et la signification du mot [idt]." *Revue d'égyptologie* 46:205–8.
- Cooke, Reinaldo F. 2009. "Basics of Reproductive Function in Beef Cows." *Oregon State University – Beef Cattle Library* Nov 2009, 1–4.

- Couto-Ferreira, M. E., and Lorenzo Verderame, eds. 2018. *Cultural Constructions of the Uterus in Pre-Modern Societies, Past and Present*. Newcastle upon Tyne: Cambridge Scholars.
- Davies, Norman de Garis. 1953. *The Temple of Hibis in el Khargeh Oasis 3: The Decoration*. Publications of The Metropolitan Museum of Art, Egyptian Expedition 17. New York: Metropolitan Museum of Art.
- Dean-Jones, Lesley. 1996. *Women's Bodies in Classical Greek Science*. Oxford: Clarendon.
- De Wit, Constant. 1958. *Les inscriptions du temple d'Opet à Karnak*. Bibliotheca Aegyptiaca 11. Brussels: Édition de la Fondation Égyptologique Reine Élisabeth.
- Deines, Hildegard von. 1956. "mw.t rmT 'Mutter der Menschen.'" *Mitteilungen des Instituts für Orientforschung* 4:27–39.
- Diels, Hermann, and Walther Kranz, ed. and trans. 1974. *Die Fragmente der Vorsokratiker. Griechisch und deutsch*. 17th edition. Zurich: Weidmann.
- Dils, Peter, and Lutz Popko. 2018. "Neue Texte zur (alt)ägyptischen Medizin. Denkströme." *Journal der Sächsischen Akademie der Wissenschaften* 19:58–82.
- Ebers, Georg. 1875. *Papyrus Ebers. Das hermetische Buch über die Arzneimittel der alten Ägypter in hieratischer Schrift*. 2 vols. Leipzig: Engelmann.
- Ellen, Roy. 2019. "Transmitting Symbolic Concepts from the Perspective of Cultural Cognition: The Acquisition and Transfer of Folk-Biological Knowledge." In *Finding, Inheriting or Borrowing? The Construction and Transfer of Knowledge in Antiquity and the Middle Ages*. Edited by Jochen Althoff, Dominik Berrens, and Tanja Pommerening. Mainz Historical Cultural Sciences 39. Bielefeld: Transcript. Pages 41–70.
- Erhard, Hubert. 1939. "Hippon als Biologe." *Sudhoffs Archiv für Geschichte der Medizin und der Naturwissenschaften* 32,4–5: 325–328.
- Erchsen, Wolja. 1954. "Aus einem demotischen Papyrus über Frauenkrankheiten." *Mitteilungen des Instituts für Orientforschung* 2: 363–377.
- Erman, Adolf. 1901. *Zaubersprüche für Mutter und Kind. Aus dem Papyrus 3027 des Berliner Museums*. Abhandlungen der Preußischen Akademie der Wissenschaften zu Berlin. Berlin: Königl. Akademie der Wissenschaften.
- Erman, Adolf, and Hermann Grapow. 1926–63. *Wörterbuch der ägyptischen Sprache*. 7 vols. Berlin: Akademie.
- Faraone, Christopher A. 2003. "New Light on Ancient Greek Exorcisms of the Wandering Womb." *Zeitschrift für Papyrologie und Epigraphik* 144: 189–197.
- Feucht, Erika. 2004. "Der Weg ins Leben." In *Naissance et petite enfance dans l'Antiquité. Actes du colloque de Fribourg, 28 Novembre–1er Décembre 2001*. Edited by Véronique Dasen. Orbis Biblicus et Orientalis 203. Fribourg: Academic Press; Göttingen: Vandenhoeck & Ruprecht. Pages 33–53.
- Frandsen, Paul John. 2007. "The Menstrual 'Taboo' in Ancient Egypt." *Journal of Near Eastern Studies* 66: 81–106.
- Frankfort, Henri. 1944. "A Note on the Lady of Birth." *Journal of Near Eastern Studies* 3: 198–200.
- Gardiner, Alan H. 1931. *The Library of A. Chester Beatty: Description of a Hieratic Papyrus with a Mythological Story, Love-Songs and other Miscellaneous Texts*. Chester Beatty Papyrus 1. London: Oxford University Press.
- Gardiner, Alan H. 1935. *Hieratic Papyri in the British Museum: Text*. 3rd edition. London: British Museum.
- Gardiner, Alan H. 1947. *Ancient Egyptian Onomastica*. Oxford: Oxford University Press.

- Gardiner, Alan H. 1955. *The Ramesseum Papyri*. Oxford: Oxford University Press for The Griffith Institute.
- Gindhart, Marion, and Tanja Pommerening, eds. 2016. *Anfang und Ende. Vormoderne Szenarien von Weltentstehung und Weltuntergang*. Darmstadt: Zabern.
- Ghalioungui, Paul. 1977. "The Persistence and Spread of Some Obstetric Concepts Held in Ancient Egypt." *Annales du Service des Antiquités de l'Égypte* 62: 141–154.
- Goltz, Dietlinde. 1974. *Studien zur altorientalischen und griechischen Heilkunde. Therapie – Arzneibereitung – Rezeptstruktur*. Sudhoffs Archiv 16. Wiesbaden: Franz Steiner.
- Grapow, Hermann, Hildegard von Deines, and Wolfhart Westendorf. 1954–73. *Grundriss der Medizin der Alten Ägypter*. 9 vols. Berlin: Akademie.
- Gräßler, Nadine. 2010. "Speichel und Spucken im Alten Ägypten. Ausgewählte Aspekte bis zum Ende des Neuen Reiches." MA thesis, Johannes Gutenberg-Universität Mainz.
- Gräßler, Nadine. 2017. *Konzepte des Auges im alten Ägypten*. Studien zur altägyptischen Kultur 20. Hamburg: Buske.
- Green, Lyn. 2003. "Beyond Humors: Some Thoughts on Comparisons between Pharaonic and Greco-Roman Medicine." In *Egyptology at the Dawn of the Twenty-First Century: Proceedings of the Eighth International Congress of Egyptologists Cairo, 2000*. 3 vols. Edited by Zahi Hawass. Cairo: American University in Cairo Press. Pages 269–275.
- Grensemann, Hermann. 1982. *Hippokratische Gynäkologie. Die gynäkologischen Texte des Autors C nach den pseudohippokratischen Schriften De muliebribus I, II und De sterilibus*. Wiesbaden: Franz Steiner.
- Griffith, Francis L. 1927. "The Abydos Decree of Seti I at Nauri." *Journal of Egyptian Archaeology* 13: 193–208.
- Griffith, Francis L., and Herbert Thompson. 1904–05. *The Demotic Magical Papyrus of London and Leiden*. 2 vols. London: Grevel.
- Guermeur, Ivan. 2013. "Entre magie et médecine. L'exemple du papyrus Brooklyn 47.218.2." *Égypte, Afrique, et Orient* 71: 11–22.
- Guermeur, Ivan. 2015. "Un faucon et une chatte dans une recette iatromagique du papyrus de Brooklyn 47.218.2 (col. x+ IV, 2–7)." In *Apprivoiser le sauvage/Taming the Wild*. Edited by Magali Massiera, Bernard Mathieu and Frédéric Rouffet. Cahiers Égypte Nilotique et Méditerranéenne 11. Montpellier: Université Paul Valéry Montpellier 3. Pages 165–181.
- Guermeur, Ivan. 2015–16. "Le papyrus hiératique iatromagique n°47.218.2 du musée de Brooklyn." *Bulletin de la Société Française d'Égyptologie* 193–94: 10–28.
- Guth, Sonja. 2018. *Hirtenbilder. Untersuchungen zur kulturimmanenten Sicht auf eine altägyptische Personengruppe*. Studien zur altägyptischen Kultur 21. Hamburg: Buske.
- Hari, Robert. 1985. *La tombe thébaine du père divin Neferhotep (TT 50)*. Collection épigraphica. Geneva: Editions de Belles-Lettres.
- Herbin, F. R. 2011. "Un nouveau document gynécologique (P. Ifao H 49 ro)." *Bulletin de l'Institut Français d'Archéologie Orientale* 111: 191–203.
- Hoffmann, Friedhelm. 2010. "Zur Neuedition des hieratisch-demotischen Paprus Wien D 6257 aus römischer Zeit." In *Translating Writings of Early Scholars in the Ancient Near East, Egypt, Greece and Rome: Methodological Aspects with Examples*. Edited by Annette Imhausen and Tanja Pommerening. Beiträge zur Altertumskunde 344. Berlin: De Gruyter. Pages 201–218.
- Hoffmann, Friedhelm. 2015. "XX und XY, oder Der kleine Unterschied und woher er nach ägyptischer Vorstellung kommt." In *Lotus and Laurel: Studies on Egyptian Language*

- and Religion in Honour of Paul John Frandsen. Edited by Kim Ryholt und Rune Nyord. CNI Publications 39. Copenhagen: Museum Tusculanum Press. Pages 121–132.
- Iversen, Erik. 1939. *Papyrus Carlsberg No. VIII, with Some Remarks on the Egyptian Origin of Some Popular Birth Prognoses*. Historisk-filologiske meddelesler 26(5). Copenhagen: Munksgaard.
- Jean, Richard-Alain, and Anne-Marie Loyrette. 2001. “À propos des textes médicaux des papyrus du Ramesseum nos III et IV. I. La contraception.” In *Encyclopédie religieuse de l'univers végétal. Croyances phyto-religieuses de l'Égypte ancienne II*. Edited by Sydney H. Aufrère. Orientalia Monspeliensia 11. Montpellier: Université Paul Valéry-Montpellier. Pages 537–592.
- Juaneda-Magdalena, Manuel. 2013. *La lactancia en el Antiguo Egipto*. Cuenca: Alderabán.
- Junker, Hermann. 1941. *Giza V. Die Mastaba des Snb (Seneb) und die umliegenden Gräber*. Vienna: Holder-Pichler-Tempsky.
- Kanawati, Naguib. 2001. *Tombs at Giza I: Kaiemankh (G4561) and Seshemnefer I (G4940)*. ACE Reports 16. Warminster: Aris and Phillips.
- Kiperwasser, Reuven. 2009. “Three Partners in a Person: The Genesis and Development of Embryological Theory in Biblical and Rabbinic Judaism.” *Lectio difficilior* 2: 37p., <http://www.lectio.unibe.ch>.
- Klotz, David. 2006. *Adoration of the Ram: Five Hymns to Amun-Re from the Hibis Temple*. Yale Egyptological Studies 6. New Haven, CT: Yale Egyptological Seminar.
- Köhler, Ines. 2016. *Rage Like an Egyptian. Möglichkeiten eines kognitiv-semantischen Zugangs zum altägyptischen Wortschatz am Beispiel des Wortfelds (WUT)*. Studien zur altägyptischen Kultur 18. Hamburg: Buske.
- Kolta, Kamal Sabri, and Doris Schwarzmans-Schafhauser. 2000. *Die Heilkunde im alten Ägypten. Magie und Ratio in der Krankheitsvorstellung und therapeutischen Praxis*. Sudhoffs Archiv 42. Stuttgart: Steiner.
- Kövecses, Zoltán. 2010. *Metaphor: A Practical Introduction*. 2nd ed. Oxford: Oxford University Press.
- Lakoff, George, and Mark Johnson. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.
- Leitz, Christian. 1999. *Magical and Medical Papyri of the New Kingdom*. Hieratic Papyri in the British Museum 7. London: British Museum.
- Leitz, Christian. 2000. “Zwischen Zauber und Vernunft. Der Beginn des Lebens im Alten Ägypten.” In *Heilkunde und Hochkultur I. Geburt, Seuche und Traumdeutung in den antiken Zivilisationen des Mittelmeerraumes*. Edited by Axel Karenberg und Christian Leitz. Naturwissenschaft–Philosophie–Geschichte 14. Münster: LIT Verlag. Pages 133–150.
- Leitz, Christian. 2005. “Die Rolle von Religion und Naturbeobachtung bei der Auswahl der Drogen im Papyrus Ebers.” In *Papyrus Ebers und die antike Heilkunde. Akten der Tagung vom 15.–16.3.2002 in der Albertina/UB der Universität Leipzig*. Edited by Hans-Werner Fischer-Elfert. Philippika 7. Wiesbaden: Harrassowitz. Pages 41–62.
- Lesky, Erna. 1950. *Die Zeugungs- und Vererbungslehren der Antike und ihr Nachwirken*. Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse 19. Mainz: Verlag der Akademie der Wissenschaften und der Literatur.
- Lieven, Alexandra von, and Joachim Friedrich Quack. 2018. “Ist Liebe eine Frauenkrankheit? Papyrus Berlin P 13602, ein gynäkomagisches Handbuch.” In *Hieratic, Demotic and Greek Studies and Text Editions: Of Making Many Books There Is No End. Festschrift*

- in honour of Sven P. Vleeming. Edited Koenraad Donker van Heel, Francisca A. J. Hoogendijk, and Cary J. Martin. Leiden: Brill. Pages 257–274.
- Littré, E. 1962. *Oeuvres complètes d'Hippocrate*. 10 vols. Amsterdam: Hakkert. Repr. of Paris: Baillière, 1853.
- Lloyd, Geoffrey Ernest Richard. 1983. *Science, Folklore and Ideology: Studies in the Life Sciences in Ancient Greece*. Cambridge: Cambridge University Press.
- Marino, Katherine. 2004. "Setting the Womb in Its Place: Toward a Contextual Analysis of Graeco-Egyptian Uterine Amulets." PhD diss., Brown University.
- Marganne, Marie-Hélène. 1993. "Links between Egyptian and Greek Medicine." *Forum* 3, 5: 35–43.
- Marshall, Amandine. 2015. *Maternité et petite enfance en Égypte ancienne*. Collection Champollion. Monaco: Éditions du Rocher.
- Marsman, Hennie J. 2003. *Women in Ugarit and Israel: Their Social and Religious Position in the Context of the Ancient Near East*. Oudtestamentische Studien 49. Leiden: Brill.
- Mathieu, Bernard. 2012. "Et tout cela exactement selon sa volonté. La conception du corps humain (Esna no 250, 6–12)." *Et in Aegypto et ad Aegyptum. Recueil d'études dédiées à Jean-Claude Grenier*. Edited by Annie Gasse, Frédéric Servajean, and Christophe Thiers. Cahiers Égypte Nilotique et méditerranéenne 5. Montpellier: Université Paul Valéry. Pages 499–516.
- Meeks, Dimitri. 2006. *Mythes et légendes du Delta d'après le papyrus Brooklyn 47.218.84*. Mémoires publiés par les membres de l'Institut français d'archéologie orientale 125. Cairo: Institut français d'archéologie orientale.
- Noblecourt, Christiane Desroches. 1952. "Pots anthropomorphes et recettes magico-médicales dans l'Égypte ancienne." *Revue d'Égyptologie* 9: 49–67.
- Nyord, Rune. 2009. *Breathing Flesh: Conceptions of the Body in the Ancient Egyptian Coffin Texts*. Copenhagen: Museum Tusculanum.
- O'Connell, Robert H. 1983. "The Emergence of Horus: An Analysis of Coffin Text Spell 148." *Journal of Egyptian Archaeology* 69: 66–87.
- Orriols-Llonch, Marc. 2015. "Semen Ingestion and Oral Sex in Ancient Egyptian Texts." *Proceedings of the Tenth International Congress of Egyptologists, University of the Aegean, Rhodes, 22–29 May 2008*. Edited by Panagiotis Kousoulis and Nikolaos Lazaridis. Orientalia Lovaniensia Analecta 241. Leuven: Peeters. Pages 839–848.
- Pommerening, Tanja. 2006. "Empfängnisverhütung im Alten Ägypten." In *Vom Nimbäum bis zur Pille. Zur kulturgeschichtlichen Vielfalt der Verhütungsmethoden*. Edited by H. Dietrich and B. Hellmann. Weimar: Hain. Pages 71–76.
- Pommerening, Tanja. 2010. "βούτυρος 'Flaschenkürbis' und κουροτόκος im Corpus Hippocraticum, De sterilibus 214. Entlehnung und Lehnübersetzung aus dem Ägyptischen." *Glotta* 86: 40–54.
- Pommerening, Tanja. 2014. "Die SsAw-Lehrtexte der heilkundlichen Literatur des Alten Ägypten. Tradition und Textgeschichte." In *Traditions of Written Knowledge in Ancient Egypt and Mesopotamia: Proceedings of Two Workshops Held at Goethe-University, Frankfurt/Main in December 2011 and May 2012*. Edited by Daliah Bawanypeck and Annette Imhausen. Alter Orient und Altes Testament 403. Münster: Ugarit. Pages 7–46.
- Pommerening, Tanja. 2015. "Milch einer Frau, die einen Knaben geboren hat." *Proceedings of the Tenth International Congress of Egyptologists, University of the Aegean, Rhodes 22–29 May 2008*. Edited by Panagiotis Kousoulis and Nikolaos Lazaridis. Orientalia Lovaniensia Analecta 241. Leuven: Peeters. Pages 2083–2095.

- Pommerening, Tanja. 2016. "Heilkundliche Texte aus dem Alten Ägypten. Vorschläge zur Kommentierung und Übersetzung." In *Translating Writings of Early Scholars in the Ancient Near East, Egypt, Greece and Rome: Methodological Aspects with Examples*. Edited by Annette Imhausen and Tanja Pommerening. Beiträge zur Altertumskunde 344. Berlin: De Gruyter. Pages 175–280.
- Pommerening, Tanja. 2017a. "Classification in Ancient Egyptian Medical Formulae and its Role in Re-Discovering Comprehensive and Specific Concepts of Drugs and Effects." In *Classification from Antiquity to Modern Times: Sources, Methods, and Theories from an Interdisciplinary Perspective*. Edited by Tanja Pommerening and Walter Bisang. Berlin: De Gruyter. Pages 167–195.
- Pommerening, Tanja. 2017b. "Medical Re-Enactments: Ancient Egyptian Prescriptions from an Emic View." In *Proceedings of the XIth Congress of Egyptologists, Florence, Italy, 23.–30.08.2015*. Edited by Rosati Gloria, Guidotti Maria. Oxford: Archaeopress. Pages 519–526.
- Pommerening, Tanja, and Ulrike Steinert. 2019. "Hilfreiche Rezepte überschreiten Grenzen. Zur Behandlung von Würmern mit der Granatapfelwurzel im alten Ägypten und Mesopotamien." In *Medicus. Die Macht des Wissens (Kat. Speyer 2019)*. Edited by Alexander Schubert für die Stiftung Historisches Museum der Pfalz Speyer zusammen mit Wolfgang Leitmeyer and Sebastian Zanke. Darmstadt: wbg Theiss. Pages 54–55.
- Quack, Joachim. 1995. "Monumental-Demotisch." In *Per aspera ad astra. Wolfgang Schenkel zum neunundfünfzigsten Geburtstag*. Edited by Louise Gestermann and Heike Sternberg-el Hotabi. Kassel: self-published. Pages 107–121.
- Quibell, J. E. 1898. *The Ramesseum*. Egyptian Research Account 2. London: Quaritch.
- Quirke, Stephen. 2016. *Birth Tusk: The Armoury of Health in Context – Egypt 1800 BC*. Middle Kingdom Studies 3. London: Golden House.
- Reymond, Eve A. E. 1976. *From the Contents of the Libraries of the Suchos Temples in the Fayyum, I: A Medical Book From Crocodilopolis*. P. Vindob. D. 6257. Vienna: Hollinek.
- Ritner, Robert K. 1984. "A Uterine Amulet in the Oriental Institute Collection." *Journal of Near Eastern Studies* 43: 209–221.
- Ritner, Robert K. 2000. "Innovations and Adaptations in Ancient Egyptian Medicine." *Journal of Near Eastern Studies* 59,2: 107–117.
- Ritner, Robert K. 2007. "Cultural Exchanges between Egyptian and Greek Medicine." In *Moving across Borders: Foreign Relations, Religion, and Cultural Interaction in the Ancient Mediterranean*. Edited by Panagiotis Kousoulis and Konstantinos Magliveras. Orientalia Lovaniensia Analecta 159. Leuven: Peeters. Pages 209–221.
- Ritner, Robert K. 2008. "Household Religion in Ancient Egypt." In *Household and Family Religion in Antiquity*. Edited by John Bodel and Saul M. Olyan. Oxford: Blackwell. Pages 171–196.
- Roth, Ann Macey. 2000. "Ancient Egyptian Beliefs about Conception and Fertility." In *Reading the Body: Representations and Remains in the Archaeological Record*. Edited by Alison E. Rautmann. Philadelphia: University of Pennsylvania Press. Pages 187–201.
- Roth, Ann Macey, and Catharine Roehrig. 2002. "Magical Bricks and the Bricks of Birth." *Journal of Egyptian Archaeology* 88: 121–139.
- Russell, Jonny, Mengmeng Sun, Wen Liang, Min He, Yan Schroen, Wenjun Zou, Tanja Pommerening and Mei Wang. 2021. "An Investigation of the Pharmacological Applications Used for the Ancient Egyptian Systemic Model 'ra-ib' from a Compared with Current Modern Traditional Chinese Medicine." *Journal of ethnopharmacology* 265, 113115 (10p). Online: 10.1016/j.jep.2020.113115.

- Sandman, Maj. 1938. *Texts from the Time of Akhenaten*. Bibliotheca Aegyptiaca 8. Chicago: Oriental Institute.
- Saunders, John Bertrand de Cusance Morant. 1963. *The Transitions from Ancient Egyptian to Greek Medicine*. Logan Clendening Lectures on the History and Philosophy of Medicine 10. Lawrence: University of Kansas Press.
- Sauneron, Serge. 1960. "Le germe dans les os." *Bulletin de l'institut français d'archéologie orientale* 60: 19–27.
- Sauneron, Serge. 1962. *Les fêtes religieuses d'Esna aux derniers siècles du paganisme*. Esna 5. Cairo: Institut français d'archéologie orientale.
- Sauneron, Serge. 1963. "Remarques de philologie et d'étymologie (§§ 19–25)." *Revue d'Égyptologie* 15: 49–62.
- Schick, Shana Strauch. 2019. "From Dungeon to Haven: Competing Theories of Gestation in Leviticus Rabbah and the Babylonian Talmud." *AJS Review* 43: 143–168.
- Spieser, Cathie. 2004. "Femmes et divinités enceintes dans l'Égypte du Nouvel Empire." In *Naissance et petite enfance dans l'Antiquité. Actes du colloque de Fribourg, 28 Novembre–1er Décembre 2001*. Edited by Véronique Dasen. Orbis Biblicus et Orientalis 203. Fribourg: Academic Press; Göttingen: Vandenhoeck & Ruprecht. Pages 55–70.
- Spieser, Cathie. 2007. *Le sang et la vie éternelle dans le culte solaire amarnien. Actes du IXe Congrès international des égyptologues II*. Edited by Jean-Claude Goyon and Christine Cardin. Orientalia Lovaniensia Analecta 150. Leuven: Peeters. Pages 1719–1728.
- Spieser, Cathie. 2018. "Aspects of the Womb in Ancient Egypt: The Matrix of the World." In *Cultural Constructions of the Uterus in Pre-Modern Societies, Past and Present*. Edited by M. Erica Couto-Ferreira and Lorenzo Verderame. Newcastle upon Tyne: Cambridge Scholars. Pages 85–97.
- Staden, Heinrich von. 1989. *Herophilus: The Art of Medicine in Early Alexandria*. Cambridge, MA: Cambridge University Press.
- Staehelin, E. 1970. "Bindung und Entbindung. Erwägungen zu Papyrus Westcar 10,2." *Zeitschrift für Ägyptische Sprache und Altertumskunde* 96: 125–139.
- Steinert, Ulrike. 2013. "Fluids, Rivers, and Vessels: Metaphors and Body Concepts in Mesopotamian Gynaecological Texts." *Le Journal des Médecines Cunéiformes* 22: 1–23.
- Steinert, Ulrike. 2015. "Von inneren Räumen und 'blühenden' Landschaften. Der weibliche Körper in der babylonischen Medizin." *Antike Welt* 2: 19–25.
- Steinert, Ulrike. 2017a. "Concepts of the Female Body in Mesopotamian Gynecological Texts, I." In *The Comparable Body: Analogy and Metaphor in Ancient Mesopotamian, Egyptian, and Greco-Roman Medicine*. Edited by John Z. Wee. Studies in Ancient Medicine. Leiden: Brill. Pages 275–357.
- Steinert, Ulrike. 2017b. "Cows, Women and Wombs. Interrelations between Texts and Images from the Ancient Near East." In *From the Four Corners of the Earth: Studies in Iconography and Cultures of the Ancient Near East in Honour of F.A. M. Wiggermann*. Edited by David Kertai and Olivier Nieuwenhuys. Alter Orient und Altes Testament 441. Münster: Ugarit-Verlag. Pages 205–258.
- Steuer, Robert O., and John Bertrand de Cusance Morant Saunders. 1959. *Ancient Egyptian and Cnidian Medicine: The Relationship of their Aetiological Concepts of Disease*. Berkeley: University of California Press.
- Stol, Marten. 2000a. *Birth in Babylonia and the Bible: Its Mediterranean Setting*. Cuneiform Monographs 14. Groningen: STYX.
- Stol, Marten. 2000b. "Schwangerschaft und Geburt bei den Babyloniern und in der Bibel." In *Heilkunde und Hochkultur I. Geburt, Seuche und Traumdeutung in den antiken Zivi-*

- lisationen des Mittelmeerraumes. Edited by Axel Karenberg und Christian Leitz. Naturwissenschaft – Philosophie – Geschichte 14. Münster: LIT. Pages 97–115.
- Stol, Marten. 2016. *Women in the Ancient Near East*. Berlin: De Gruyter.
- Strouhal, Eugen, Břetislav Vachala, and Hana Vymazalová. 2014. *The Medicine of the Ancient Egyptians, 1: Surgery, Gynecology, Obstetrics and Pediatrics*. Translated by Sean Mark Miller and Kateřina Millerová. Cairo: American University in Cairo Press.
- Suvorov, Rachel Rodabaugh. 2004. “The Kahun Papyrus in Context: The ‘Floating Uterus.’” In *Current Research in Egyptology*. Edited by Rachael J. Dann. Oxford: Oxbow. Pages 138–146.
- Toivari-Viitala, Jaana. 2001. *Women at Deir el-Medina: A Study of the Status and Roles of the Female Inhabitants in the Workmen’s Community during the Ramesside Period*. Egyptologische uitgaven 15. Leiden: Nederlands Instituut voor het Nabije Oosten.
- Töpfer, Susanne. 2014. “The Physical Activity of Parturition in Ancient Egypt: Textual and Epigraphical Sources.” *Dynamis* 34,2: 317–335.
- Unger, Juliane. 2017. “Zum medizinischen Wissen der Alten Ägypter.” In *Texte zur Wissenskultur*. Edited by Bernd Janowski and Daniel Schwemer. Texte aus der Umwelt des Alten Testaments, Neue Folge 9. Gütersloh: Gütersloher Verlagshaus. Pages 191–194.
- Vandier, Jacques. 1961. *Le Papyrus Jumilhac*. Paris: Centre national de la recherche scientifique.
- Walker, James H. 1996. *Studies in Ancient Egyptian Anatomical Terminology*. Australian Centre for Egyptology Studies 4. Warminster: Aris & Phillips.
- Wee, John Z., ed. 2017. *The Comparable Body: Analogy and Metaphor in Ancient Mesopotamian, Egyptian, and Greco-Roman Medicine*. Leiden: Brill.
- Wegner, Josef. 2006. “The Magical Birth Brick.” *Expedition* 48,2: 31–36.
- Wegner, Josef. 2009. “A Decorated Birth-Brick from South Abydos: New Evidence on Child-birth and Birth Magic in the Middle Kingdom.” In *Archaism and Innovation: Studies in the Culture of Middle Kingdom Egypt*. Edited by David P. Silverman, William Kelly Simpson, and Josef Wegner. New Haven, CT: Department of Near Eastern Languages and Civilizations, Yale University; Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology. Pages 447–496.
- Weisser, Ursula. 1983. *Zeugung, Vererbung und pränatale Entwicklung in der Medizin des arabisch-islamischen Mittelalters*. Erlangen: Lüling.
- Wendrich, Willeke. 2006. “Entangled, Connected or Protected? The Power of Knots and Knotting in Ancient Egypt.” In *Through a Glass Darkly: Magic, Dreams and Prophecy in Ancient Egypt*. Edited by Kasia Szpakowska. Swansea: Classical Press of Wales. Pages 243–269.
- Westendorf, Wolfhart. 1966. “Beiträge aus und zu den medizinischen Texten.” *Zeitschrift für ägyptische Sprache und Altertumskunde* 92: 128–154.
- Westendorf, Wolfhart. 1999. *Handbuch der altägyptischen Medizin*. 2 vols. Handbuch der Orientalistik, Abteilung 1 36. Leiden: Brill.
- Wreszinski, Walter. 1909. *Der grosse medizinische Papyrus des Berliner Museums (Pap. Berl. 3038), in Facsimile und Umschrift mit Übersetzung, Kommentar und Glossar*. Die Medizin der alten Ägypter 1. Leipzig: Hinrichs.
- Yamazaki, Naoko. 2003. *Zaubersprüche für Mutter und Kind*. Papyrus Berlin 3027. Achet Schriften zur Ägyptologie B,2. Berlin: Achet.
- Yoyotte, Jean. 1962. “Les os et la semence masculine à propos d’une théorie physiologique égyptienne.” *Bulletin de l’institut français d’archéologie orientale* 61: 139–146.

List of figures

Fig. 1: Cooke 2009, 2, fig. 2.

Fig. 2: By <https://www.scientificanimations.com/wiki-images/>, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=87030864>. 2

Fig. 3: Junker 1941, fig. 19.

Fig. 4: Kanawati 2001, pl. 36 (detail).

Gynaecology in Syriac Sources: Theory and Practice^{*}

SIAM BHAYRO

ABSTRACT: In this contribution, I divide the discussion of Syriac gynaecological sources into two groups. The first group mostly consists of no-longer extant theoretical texts, including the Syriac translations of Galen's *De Semine*, *De Foetuum Formatione*, *De Uteri Dissectione* and *De Propriis Placitis*, the Syriac translation of the pseudo-Galenic *In Hippocratis De Foetus Natura Librum Commentarius*, and the Syriac reception of Paul of Aegina. The second group consists of extant references in the surviving lists of simples, in both Syriac and Judaeo-Syriac, and in the medical recipes preserved in the Syriac *Book of Medicines*.

It is convenient to divide our survey of gynaecology in Syriac sources into two parts – theory and practice. In the first theoretical section, we will consider Hippocrates's *Aphorisms*, Galen's main gynaecological works, a pseudo-Galenic text, Paul of Aegina, and Job of Edessa's *Book of Treasures*. In the second practical section, we will look at some extant examples from Galen's *De Simplicium Medicamentorum*, the Cairo Genizah Judaeo-Syriac fragment, and the Syriac *Book of Medicines*.

1. Theory

1.1. Hippocrates's *Aphorisms*

Henri Pognon published a Syriac translation of Hippocrates's *Aphorisms*, based on a manuscript he discovered in Aleppo.¹ Some of the aphorisms in Section 5 relate to gynaecological matters, but, in keeping with the overall picture that shall emerge, the motivation for their translation was not an interest in gynaecology. Assuming that the extant translation was originally produced by Ḥunayn, it would appear that it was based on Ḥunayn's translation of Galen's commentary on the *Aphorisms*.² We probably have Pognon's text, therefore, because of Ḥunayn's interest in the works of Galen and Hippocrates.³

^{*} All translations given in this contribution are mine. I am grateful for the helpful remarks offered by the anonymous reviewer.

¹ See Pognon 1903.

² See Overwien 2015.

³ A similar situation pertains to the Syriac translation of Book 6 of Hippocrates's *Epidemics*, which Kessel has argued was produced by Sergius on the basis of Gesius's commentary; see Kes-

Galen's main gynaecological works

Galen treated gynaecological issues in four works: *De Semine* (Kühn IV:512–651), *De Foetuum Formatione* (Kühn IV:652–702), *De Uteri Dissectione* (Kühn II:887–908), and *De Propriis Placitis*.⁴ Our only source for the oriental fortuna of these works is the well known رسالة حنين بن اسحق الى علي بن يحيى في ذكر ما ترجم من كتب جالينوس بعلمه وبعض ما لم يترجم 'The Epistle of Ḥunayn ibn Ishaq to 'Alī Ibn Yaḥya concerning those of Galen's books that have been translated, to his knowledge, and some of those that are not translated', written by the prolific ninth century Nestorian Christian translator.⁵ When we consider Ḥunayn's statements regarding Galen's gynaecological works, a consistent picture emerges.

Ḥunayn's account of Galen's *De Semine* reads:⁶

كتابه في المنى . هذا الكتاب مقالتان وغرضه فيه ان يبين ان الشيء الذي تولدت منه جميع اعضاء البدن ليس هو الدم كما ظن ارسطاطاليس لكن تولد جميع الاعضاء الاصلية انما هو من المنى وهي الاعضاء البيض وان الذي يتولد من الدم انما هو اللحم الاحمر وحده . وقد ترجمت هذا الكتاب الى السريانية لسلمويه وترجمته الى العربية لاحمد بن موسى.

His book concerning semen: This book is two treatises, and his aim in it is that he may show that by no means are all the members of the body generated from blood as Aristotle believes, but the original members of the body are generated from semen – that is the white members – and rather that red flesh alone is generated from blood. And I translated this book into Syriac for Salmawayh and I translated it into Arabic for Aḥmad ibn Mūsa.

This fits in with the typical pattern of Ḥunayn producing Syriac translations for Christian patrons and Arabic translations for Muslim patrons.⁷ The main point of interest here, however, is why this book was in demand. Judging from Ḥunayn's comments, it was not so much for its gynaecological content, but more for its contribution to the traditional argument between Aristotle and the Hippocratic School over the roles of blood and semen in reproduction.⁸

Regarding *De Uteri Dissectione*, Ḥunayn states:⁹

sel 2012. Although this text remains unedited, Kessel presents one passage that deals with uterine suffocation and the expulsion of the afterbirth.

⁴ See the discussion in Debru 2008, 278–280.

⁵ For a useful introduction to Ḥunayn and his *Epistle*, see Pormann and Savage-Smith 2007, 24–29. Ḥunayn's *Epistle* was edited by Bergsträsser 1925. A new edition with English translation has recently been published: Lamoreaux 2016. For all citations of this work in this contribution, the edition of Lamoreaux should be consulted, as it gives important variants and other data.

⁶ See Bergsträsser 1925, pp. 26 (German translation) and ٢٢ (Arabic text); Lamoreaux 2016, 74–75.

⁷ See Meyerhof 1926, 711; Dols 1989, 48; Bhayro and Brock 2012/2013, 41–42; Lamoreaux 2016, xv–xviii.

⁸ See Debru 2008, 278.

⁹ See Bergsträsser 1925, 18 (German translation) and ٢٢ (Arabic text); Lamoreaux 2016, 48–49.

كتابه في تشريح الرحم . هذا الكتاب مقالة واحدة صغيرة . كتبه لامرأة قابلة في حداثة سنه . فيه جميع ما يحتاج اليه من تشريح الرحم وما يتولد فيه في وقت الحمل . وقد كان ترجم هذا الكتاب ايوب . ثم ترجمته انا مع سائر ما ترجمته من كتب التشريح الى السريانية . وقد ترجمه حبش الى العربية لمحمد بن موسى .

His book concerning the anatomy of the womb: This book is one small treatise. He wrote it for a midwife in his youth. In it is all that is required about the anatomy of the womb and what is generated in it in the time of pregnancy. And Job translated this book. Then I translated it with the rest of the books of anatomy that I translated into Syriac. And Ḥubaysh translated it into Arabic for Muḥammad ibn Mūsā.

Just as with *De Semine*, this also fits in with the typical pattern of Syriac translations being produced for Christian patrons and Arabic translations for Muslim patrons. Ḥunayn states that it was twice translated into Syriac in the ninth century – by Job of Edessa and by Ḥunayn himself – and was also translated into Arabic. So the book was clearly in demand, which, once again, raises the question of why. Ḥunayn is clearly aware of the book's gynaecological content – كتبه لامرأة قابلة – 'he wrote it for a midwife in his youth' etc. – but Ḥunayn stresses its anatomical rather than its gynaecological importance – ثم ترجمته انا مع سائر ما ترجمته – 'Then I translated it with the rest of the books of anatomy that I translated into Syriac'. It appears, therefore, that it was valued for its anatomical rather than gynaecological content. The book also addresses some of the same issues as *De Semine*, which may also account for its popularity.

Ḥunayn's account of *De Uteri Dissectione* can be said to reveal a rather dismissive attitude towards gynaecology. On the one hand, Ḥunayn states that it consists of مقالة واحدة صغيرة 'one small treatise', while, on the other hand, he states that it contains جميع ما يحتاج 'all that is required' for gynaecology. This very much suggests that Ḥunayn did not value gynaecology as highly as some other fields of medicine.

Ḥunayn's description of *De Propriis Placitis* reads:¹⁰

كتابه فيما يعتقد رايأ . هذا الكتاب ايضا مقالة واحدة . يصف فيه ما علم وما لم يعلم . وقد ترجمه ايوب الى السريانية وترجمته الى السريانية لاسحق ابني . وترجمه الى العربية ثابت بن قرة لمحمد بن موسى وترجمه عيسى بن يحيى الى العربية وقابل به اسحق الاصل واصلحته لعبد الله بن اسحق .

His book concerning what opinions he believes: This book is also one treatise. He describes in it what is known and what is not known. And Job translated it into Syriac, and I translated it into Syriac for Ishāq my son. And Thābit ibn Qurrah translated it into Arabic for Muḥammad ibn Mūsā. And ʿĪsā ibn Yaḥya translated it into Arabic, and Ishāq collated it with the original, and I corrected it for ʿAbd Allāh ibn Ishāq.

As with the previous two examples, this fits in with typical pattern of Syriac translations being produced for Christian patrons and Arabic translations for Muslim patrons. This text was translated multiple times into both Syriac and Arabic, again

¹⁰ See Bergsträsser 1925, 38 (German translation) and ٤٧-٤٦ (Arabic text); Lamoreaux 2016, 114–115.

with two ninth-century Syriac translations by Job of Edessa and Ḥunayn himself. There is no mention of anything relating to gynaecology in Ḥunayn's account, so it is likely that gynaecological interest was not the primary motivation for this text's popularity.

According to Ḥunayn's *Epistle, De Foetuum Formatione* was not translated into Syriac. But this does not mean that no Syriac translation of *De Foetuum Formatione* existed – it simply means that Ḥunayn was unaware of one. To be fair, the full title of Ḥunayn's *Epistle* does include the phrase *يعلمه* 'to his knowledge', so Ḥunayn himself was clearly aware that his account was not exhaustive. Elsewhere, I have suggested that the best approach to Ḥunayn's *Epistle* is to accept his statements on what was translated, but to remain open minded in all other cases. Given what we know about the scope of Sergius's translations of Galen in the sixth century, I would suggest that it is likely that Sergius did indeed translate *De Foetuum Formatione*, but Ḥunayn never came across the text (or perhaps did not feel the need to engage with it).¹¹

Given the above four examples, which are not exhaustive, it is clear that gynaecology was not a priority for Ḥunayn and his colleagues: one text was completely ignored, and the other three were translated for non-gynaecological reasons. Furthermore, judging from his account of *De Uteri Dissectione*, Ḥunayn himself appears to adopt a dismissive attitude towards gynaecology.

1.2. Pseudo-Galen

There is one pseudo-Galenic work that is relevant to our present analysis – *In Hippocratis De Foetus Natura Librum Commentarius* – about which Ḥunayn states:¹²

تفسيره لكتاب طبيعة الجنين . هذا الكتاب لم نجد له تفسيراً من قول جالينوس ولا وجدنا جالينوس ذكر في فهرست كتبه انه عمل له تفسيراً . الا انه وجدناه قد قسم هذا الكتاب بثلاثة اجزاء في كتابه الذى عمله في علم ابقرات بالتشريح ، وذكر ان الجزء الاول والثالث من هذا الكتاب منحول ، ليس هو لابقرات ، وانما الصحيح منه الجزء الثاني . وقد فسر هذا الجزء جاسيوس الاسكندراني . وقد وجدنا لجميع الثلاثة الاجزاء تفسيرين احدهما سرياني موسوم باذه لجالينوس . وقد كان ترجمه سرجس . فلما فحصنا عنه علمنا انه لبالبس . والاخر يوناني فلما فحصنا عنه وجدناه لسورانوس الذى من شيعة المؤثوديقا . [ترجم حنين فص هذا الكتاب الا قليلا منه الى العربية فى خلافة المعتز.]

His commentary on the Book of the Nature of the Embryo: We have not found concerning this book a commentary by Galen, neither did we find that Galen mentioned in the list of his books that he produced a commentary on it. But we found that he did divide this book into three parts, in his book that he produced concerning Hippocrates's knowledge about anatomy, and he mentioned that the first and third parts of this book are spurious – they

¹¹ See Bhayro 2016, 122–123; see also the following discussion of *In Hippocratis De Foetus Natura Librum Commentarius*.

¹² See Bergsträsser 1925, 35–36 (German translation) and ٤٣–٤٤ (Arabic text); Lamoreaux 2016, 106–107.

are not by Hippocrates – and only the second part of it is genuine. And Gesius the Alexandrian commented on this part. And we have found for all three parts two commentaries. One of them is (in) Syriac – it is ascribed to Galen. And Sergius translated it. But, when we inquired about it, we learned that it is by Pelops. And the other is (in) Greek. And, when we inquired about it, we found it is by Soranus, who was of the sect of the Methodists. [Ḥunayn translated the lemmata of this book, except for a little bit of it, into Arabic during the Caliphate of Al-Mu'tazz.]

From Ḥunayn's account, it would appear that, in the sixth century, Sergius translated what he thought was a Galenic commentary into Syriac as part of his comprehensive translation project, while Ḥunayn later translated part of Soranus's commentary into Arabic. I would suggest that Sergius's interest in the pseudo-Galenic commentary was not on account of its gynaecological content, but due to his belief that it was by Galen and thus needed to be translated along with the rest of the Galenic corpus.¹³

1.3. *Paul of Aegina*

Although not strictly theoretical, it is worthwhile at this point mentioning Paul of Aegina's *Pragmateia*, a seventh-century medical compendium, which we know was translated into Syriac by the ninth century.¹⁴ The Syriac translation was subsequently used as a source by Ibn Sarābiyūn (late ninth century) for his Syriac medical encyclopaedia *The Small Compendium*. Unfortunately, the *The Small Compendium* is no longer extant in Syriac, but some gynaecological sections are preserved in an Arabic translation. Excerpts of the Syriac translation of the *Pragmateia* are preserved in the tenth-century *Lexicon* of Bar Bahlul,¹⁵ but these are concerned with ophthalmology, pharmacology and pathology rather than gynaecology – again, this appears to reflect a comparative lack of interest in gynaecological matters in Syriac literature.¹⁶

1.4. *Job of Edessa*

Edited by Mingana, Job of Edessa's early ninth century encyclopaedia, the so-called *Book of Treasures*, contains much scientific and medical material.¹⁷ Chap-

¹³ See Bhayro 2016; for *In Hippocratis De Foetus Natura Librum Commentarius* in particular, see Bhayro 2021, 89–90.

¹⁴ Paul of Aegina's *Pragmateia* has been subjected to an excellent analysis by Pormann 2004.

¹⁵ Edited by Duval 1901. Bar Bahlul's *Lexicon* is itself a crucial but underexploited source of technical, including gynaecological, lexicographical data.

¹⁶ At this point, mention should also be made of the ninth century medical handbook recently brought to light by Kessel, who suggests that it was produced by ʾĪšō' bar ʾAlī and was modelled on Paul of Aegina's *Pragmateia*. This handbook remains unedited, but contains much gynaecological material, including chapters on menstruation and sexual desire; see Kessel 2017.

¹⁷ See Mingana, 1935.

حالا همه را به ... حقیقت در دسترس می دهیم تا بداند چه می گویم.

The gynaecological uses mentioned for these plants are part of much longer descriptions that include many other uses. The gynaecological notes, therefore, are very much obscured by the rest of the text and would be difficult to locate. The text is designed to provide a ready reference to the plants rather than their uses. As such, the usefulness of this text for gynaecology is limited.¹⁹

CUL T-S K 14.22 *r*

... but iron to a greater extent restrains the menstruation of women and heals the stomach, and sometimes likewise powerfully heals without utterly dismissing that which she conceives ...

This brief note is followed by an equally brief ophthalmological note, so, once again, the text is not gynaecological in nature.

The Syriac *Book of Medicines* is the name often given to Budge's edition of BL Or. 9360, itself a hastily-made copy of an incomplete twelfth-century manuscript. Budge's edition remains a very important source, even though it is not without some fundamental problems.²¹ It is divided into three distinct parts.

This part attempts to be both 'scientific', with theoretical discussions followed by collections of complex remedies, and practical, with a head-to-foot arrangement of chapters. The theoretical discussions contain much Galenic material.

²⁰ See Bhayro 2012; Bhayro 2014; Bhayro 2017a; Bhayro 2017b.

²¹ See Budge 1913; Bhayro 2013; Bhayro 2015; Bhayro and Rudolf 2019.

سكندر	(7) spikenard , <i>Nardostachys Jatamansi</i> (cf. BL Add 14,661 54r; DMT 242–243; LTPS 84)
حقا سكر	(8) pellitory , <i>Anacyclus Pyrethrum</i> (cf. BL Add 14,661 55v; DMT 279–280)
مسكر الحمار	(9) beaver secretion , <i>castoreum</i> (< Gr. καστώρειον; DMT 194; LTPS 80)
زدر	(10) zedoary (cf. NP zurunbād; ILS 177)
درونك	(11) dronicum (< MP *drōnag; ILS 156; LTPS 35)
ختر سكر سكر ختر	(12) pearls that are not split
مسك	(13) musk (< MP mušk; ILS 204; LTPS 56)
مقهر	(14) camphor (< MP kāpūr; ILS 189; LTPS 80)
سكر	(15) honey (LTPS 35)
Terminology: Middle Persian	5, 10, 11, 13, 14
Greek	4, 6, 9
Syriac	1, 2, 3, 7, 8, 10, 12, 15

Example 5 – *Book of Medicines* f. 204r²⁷

سكندر مسكر حقا سكر زدر درونك مسك مقهر سكر
سكر ختر سكر ختر

Remedy ‘victorious antidote’ (MP *pērōz* and *anōš*), which is useful for a harsh ailment of the colon, and for flatulence, and for winds, and for diarrhoea of the stomach, and for pregnant women who are seized by winds.

Ingredients: سفيد سكر	(1) white pepper (cf. BL Add 14,661 55r; ILS 234; LTPS 71–72)
سكر	(2) opium (< Gr. ὄπιον; DMT 253; LTPS 25)
زهر سكر	(3) seeds of henbane , <i>Hyoscyamus niger</i> (cf. BL Add 14,661 72r; DMT 318–319; LTPS 87)
سكر	(4) saffron , <i>Crocus sativus</i> (< MP kurkum; ILS 194; DMT 212; LTPS 48)
سكر	(5) spurge , <i>Euphorbia resinifera</i> (< Gr. Εὐφώρβιον; DMT 172; LTPS 26)

²⁷ Budge 1913, I.426 & II.502.

ܚܢܐ ܡܢܬܐ	(6) pellitory , <i>Anacyclus Pyrethrum</i> (cf. BL Add 14,661 55v; DMT 279–280)
ܥܬܠܡܐ	(7) spikenard , <i>Nardostachys Jatamansi</i> (cf. BL Add 14,661 54r; DMT 242–243; LTPS 84)
ܚܠܒܐ	(8) honey (LTPS 35)
Terminology:	
Middle Persian	title, 4
Greek	2, 5
Syriac	1, 3, 6, 7, 8

It is clear that, in all five recipes, the terminology is primarily Syriac. Greek loanwords are used for several substances, most prominently opium (ܥܦܝܐ < ὀπιον) and spurge (ܥܘܫܦܘܪܒܝܐ < εὐφώρβιον). Middle Persian loanwords are used less (except in the fourth recipe – see below), especially for saffron (ܚܠܒܐ < *kurkum*).

The fifth recipe is given the name ܥܠܐ ܡܢܬܐ, which probably derives from Middle Persian *pērōz anōš* ‘victorious antidote’.²⁸ Even though it is explicitly Persian in origin, the Greek loanwords for opium and spurge are still used and the majority of terms are still Syriac.

The third and fourth recipes are presented as being Roman (i. e. western) and Persian (i. e. eastern) equivalents, yet both display the same preponderance of Syriac terms and use of Greek loanwords for opium and spurge and Middle Persian loanword for saffron. The only difference between them, in terms of preponderance, is that the Persian recipe, unsurprisingly, has comparatively more Middle Persian terms.

The use of the Akkadian loanword *egingīru* in the second recipe is particularly interesting. The Syriac form ܥܝܓܝܪܐ reflects the Assyrian rather than the Babylonian form in being written without the initial *e*.²⁹ This could suggest that the Syriac form is based upon a northern Mesopotamian tradition.

These observations suggest that the recipes are all oriental in origin, and that the use of Greek and Middle Persian terminology for certain plants was inevitable. It also suggests that, when there is a shift in preponderance, as with the fourth recipe, it may be possible to identify the place of origin a bit more specifically – in this case Iran. The use of the term ‘Roman’, therefore, to describe the third recipe probably reflects its origin in the Greco-Roman east.

Regarding the question of whether there is a core set of ingredients that pertains to gynaecology, we are able to note that three substances occur in all five recipes, four occur in four out of five, and one occurs in three out of five:

²⁸ See MacKenzie 1986, 10 and 68.

²⁹ See the entry *egingīru* in CAD E:43, which also gives two examples of the use of the seeds of this plant in medicine.

- in all five:	פלפל סהדי עגור ספראס	white pepper spikenard (and oil of spikenard) spurge (and oil)
- in four:	דבש סאפראן פליטורי זיידעס פון הענבאנע	honey saffron pellitory seeds of henbane
- in three:	אפיום	opium

It would perhaps be worthwhile extending this analysis to all twenty remedies and then consulting an ethnopharmacologist to see whether there is a sound basis for the popularity of certain ingredients.

It should be stressed that all of these recipes have multiple uses – they are not purely gynaecological recipes.

The second part of the Syriac *Book of Medicines* contains a series of astrological omens and spells, including various numerological devices, some of which relate to sexual health, pregnancy, infertility, and the gender of an unborn child.³⁰

The third part of the Syriac *Book of Medicines* contains what appears to be a collection of indigenous prescriptions. These series of recipes are arranged, as in Part One, in order from the head downwards. Unlike before, however, they are not multipurpose recipes. Instead, they are for specific ailments, including two relating to gynaecological matters:

1. **අනුමැතිය** : ප්‍රධාන අමාත්‍යවරයාගේ අනුමැතිය ලබා ගැනීම සඳහා අත්‍යවශ්‍ය වේ.
 2. **ප්‍රකාශන** : ප්‍රධාන අමාත්‍යවරයාගේ නිවැරදි ප්‍රකාශනයක් ලෙස සලකනු ලබයි.
 3. **ප්‍රතිචාර** : ප්‍රධාන අමාත්‍යවරයාගේ ප්‍රතිචාරයක් ලෙස සලකනු ලබයි.
 4. **ප්‍රතිපත්ති** : ප්‍රධාන අමාත්‍යවරයාගේ ප්‍රතිපත්තියක් ලෙස සලකනු ලබයි.
 5. **ප්‍රතිපත්ති** : ප්‍රධාන අමාත්‍යවරයාගේ ප්‍රතිපත්තියක් ලෙස සලකනු ලබයි.

For the woman who is narrow in her giving birth and her unborn child does not descend: Bind coriander and hang (it) above her right thigh, and, when she gives birth, take (the coriander) and hang (it) above her child. Or let her drink savory in wine. Or cook round gourd and give (her) their water to drink. Or crush cumin and savory and seed of flax, and give (it) to her to drink in wine.

³⁰ For a recent analysis of this section, see Rudolf 2014 and Rudolf 2018.

³¹ Budge 1913, I.571–572 and II.680.

coriander	𐤒𐤌𐤇	Syr. (<i>LTPS</i> 88)
savory	𐤒𐤌𐤇 𐤍	< MP * <i>čatrag</i> (?; <i>LTPS</i> 76)
wine	𐤍𐤕𐤅	Syr. (common Semitic)
round gourd	𐤒𐤌𐤇	Syr. (<i>LTPS</i> 81)
cumin	𐤒𐤌𐤇	< Akk. <i>kamūnu</i> (cf. <i>LTPS</i> 50)
seed of flax	𐤒𐤌𐤇 𐤍𐤕𐤅	Syr. (<i>LTPS</i> 53)

BoM f. 270v³²[illegible]

In this case, all of the following terms are Syriac:

iron filings	سلك حديدى
'horse's hoof'	فم الحصان
'donkey's hoof'	فم الحمار
ox dung	زبل البقر
branched horsetail	ساق الحصان
seed of thorns	بذرة الشوك

These two recipes, therefore, represent the only extant and published examples of gynaecology in Syriac that are both specific and practical.

3. Conclusion

The relatively poor amount of surviving gynaecological material in Syriac strongly suggests that, in both theory and practice, gynaecology was not a priority for the kind of medical practitioner who would have engaged with written sources. A cursory glance at other genres of Syriac literature, such as chronicles and epistles, would suggest the same – hospitals, an important feature of Syriac Christianity, were not the domain for gynaecology. It was probably the case that it was the home that took center stage, with women taking responsibility for their own

³² Budge 1913, I.571–572 and II.680.

health in such matters. Their accumulated practical wisdom probably seldom made its way into the formal medical manuals. Having said that, it is true that most of the extant Syriac sources remain unedited, so we must not make any firm conclusions at this point.

Bibliography

- Afif, Naima, Corneliu Arsene, Siam Bhayro, Irene Calà, Jimmy Daccache, Robert Hawley, Grigory Kessel, Peter E. Pormann, William I. Sellers and Natalia Smelova. 2016. "Continuing Research on the Syriac Galen Palimpsest: Collaborative Implementation within the Framework of Two European Projects." *Semitica et Classica* 9: 261–268.
- Afif, Naima, Siam Bhayro, Peter E. Pormann, William I. Sellers and Natalia Smelova. 2016. "The Syriac Galen Palimpsest: Research Methods and Latest Discoveries." *The Comparative Oriental Manuscript Studies Bulletin* 2: 5–16.
- Afif, Naima, Siam Bhayro, Grigory Kessel, Peter E. Pormann, William I. Sellers and Natalia Smelova. 2018. "The Syriac Galen Palimpsest: A Tale of Two Texts." *Manuscript Studies* 3: 110–154.
- Afif, Naima, Siam Bhayro, Peter E. Pormann, William I. Sellers and Natalia Smelova. 2018. "Analyzing Images, Editing Texts: The Manchester Project." *Manuscript Studies* 3: 155–185.
- Bergsträsser, Gotthelf. 1925. *Ḥumain ibn Ishāq über die syrischen und arabischen Galen-Übersetzungen*. Leipzig: Brockhaus.
- Bhayro, Siam. 2005. "Syriac Medical Terminology: Sergius and Galen's Pharmacopia." *Aramaic Studies* 3: 147–165.
- Bhayro, Siam. 2012. "A Judaeo-Syriac Medical Fragment from the Cairo Genizah." *Aramaic Studies* 10: 153–172.
- Bhayro, Siam. 2013. "The Reception of Galen's *Art of Medicine* in the Syriac *Book of Medicines*." In *Medical Books in the Byzantine World*. Edited by Barbara Zipser. Bologna: Eikasmos. Pages 123–144.
- Bhayro, Siam. 2014. "Remarks on the Genizah Judaeo-Syriac Fragment." *Aramaic Studies* 12: 143–153.
- Bhayro, Siam. 2015. "Theory and Practice in the Syriac *Book of Medicines*: the Empirical Basis for the Persistence of Near Eastern Medical Lore." In *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Edited by J. Cale Johnson. Berlin: De Gruyter. Pages 147–158.
- Bhayro, Siam. 2016 (dated 2012). "Sergius of Res 'Ayna's Syriac Translations of Galen: Their Scope, Motivation and Influence." *Bulletin of the Asia Institute* (new series) 26: 121–128.
- Bhayro, Siam. 2017a. "The Judaeo-Syriac Medical Fragment from the Cairo Genizah: A New Edition and Analysis." In *Collecting Recipes: Byzantine and Jewish Pharmacology in Dialogue*. Edited by Lennart Lehmhaus and Matteo Martelli. Berlin: De Gruyter. Pages 273–300.
- Bhayro, Siam. 2017b. "Judeo-Syriac." In *Handbook of Jewish Languages: Revised and Updated Edition*. Edited by Lily Khan and Aaron D. Rubin. Leiden: Brill. Pages 631–634.
- Bhayro, Siam. 2020. "Galen's *Simples* in Syriac." *Archives Internationales d'Histoire des Sciences* 70: 114–128.

- Bhayro, Siam. 2021. "Pseudonymity and Pseudo-Galen in the Syriac Traditions." *Pseudo-Galenica: The Formation of the Galenic Corpus from Antiquity to the Renaissance*. Edited by Klaus-Dietrich Fischer, Caroline Petit, and Simon Swain. London: University of London Press. Pages 82–97.
- Bhayro, Siam and Sebastian Brock. 2012/13. "The Syriac Galen Palimpsest and the Role of Syriac in the Transmission of Greek Medicine in the Orient." *Bulletin of the John Rylands Library* 89, Supplement: 25–43.
- Bhayro, Siam, Robert Hawley, Grigory Kessel and Peter E. Pormann. 2012. "Collaborative Research on the Digital Syriac Galen Palimpsest." *Semitica et Classica* 5: 261–264.
- Bhayro, Siam, Robert Hawley, Grigory Kessel and Peter E. Pormann. 2013. "The Syriac Galen Palimpsest: Progress, Prospects and Problems." *Journal of Semitic Studies* 58: 131–148.
- Bhayro, Siam, Peter E. Pormann and William I. Sellers. 2013. "Imaging the Syriac Galen Palimpsest: Preliminary Analysis and Future Prospects." *Semitica et Classica* 6: 299–302.
- Bhayro, Siam and Stefanie M. Rudolf. 2019. "Budge's *Syriac Book of Medicines* after One Hundred Years: Problems and Prospects." In *Mesopotamian Medicine and Magic. Studies in Honor of Markham J. Geller*. Edited by Strahil V. Panayotov and Luděk Vácín. Leiden: Brill. Pages 116–130.
- Budge, Ernest A. Wallis 1913. *The Syriac Book of Medicines: Syrian Anatomy, Pathology and Therapeutics in the Early Middle Ages*. London: Oxford University Press.
- Ciancaglini, Claudia A. 2008. *Iranian Loanwords in Syriac*. Wiesbaden: Reichert.
- Debru, Armelle. 2008. "Physiology." In *The Cambridge Companion to Galen*. Edited by Robert J. Hankinson. Cambridge: Cambridge University Press. Pages 263–282.
- Dols, Michael W. 1989. "Syriac into Arabic: The Transmission of Greek Medicine." *ARAM* 1: 45–52.
- Durling, Richard J. 1993. *A Dictionary of Medical Terms in Galen*. Leiden: Brill.
- Duval, Rubens, ed. 1901. *Lexicon Syriacum auctore Hassano Bar Bahlule*. Paris: Leroux.
- Gignoux, Philippe. 2011. *Lexique des termes de la pharmacopée syriaque*. Paris: Association pour l'avancement des études iraniennes.
- Hawley, Robert. 2014. "More Identifications of the Syriac Galen Palimpsest." *Semitica et Classica* 7: 237–272.
- Kessel, Grigory. 2012. "The Syriac Epidemics and the Problem of its Identification." In *Epidemics in Context: Greek Commentaries on Hippocrates in the Arabic Tradition*. Edited by Peter E. Pormann. Berlin: De Gruyter. Pages 93–124.
- Kessel, Grigory. 2017. "A Syriac Medical *Kunnāšā* ʾIšō' bar 'Alī (9th c.): First Soundings." *Intellectual History of the Islamicate World* 5: 228–251.
- Lamoreaux, John C. 2016. *Ḥunayn ibn Ishāq on His Galen Translations*. Provo: Brigham Young University Press.
- MacKenzie, David. N. 1986. *A Concise Pahlavi Dictionary*. London: Routledge.
- Merx, Adalbert. 1985. "Proben der syrischen Uebersetzung von Galenus' Schrift über die einfachen Heilmittel." *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 39: 237–305.
- Meyerhof, Max. 1926. "New Light on Ḥunayn Ibn Ishāq and his Period." *Isis* 8: 685–724.
- Mingana, Alphonse. 1935. *Encyclopaedia of Philosophical and Natural Sciences as Taught in Baghdad about A. D. 817, or Book of Treasures by Job of Edessa*. Cambridge: Heffer and Sons.

- Overwien, Oliver. 2015. "The Paradigmatic Translator and His Method: Ḥunayn ibn Isḥāq's Translation of the Hippocratic *Aphorisms* from Greek via Syriac into Arabic." *Intellectual History of the Islamicate World* 3: 158–187.
- Pognon, Henri. 1903. *Une version syriaque des aphorismes d'Hippocrate*. Leipzig: J. C. Hinrichs.
- Pormann, Peter E. 2004. *The Oriental Tradition of Paul of Aegina's Pragmateia*. Leiden: Brill.
- Pormann, Peter, and Savage-Smith, Emily. 2007. *Medieval Islamic Medicine*. Edinburgh: Edinburgh University Press.
- Rudolf, Stefanie M. 2014. "Die astraldivinatorischen Passagen des Syrischen Medizinbuches: Neu übersetzt und kommentiert." Ph.D. diss., Freie Universität Berlin.
- Rudolf, Stefanie M. 2018. *Syrische Astrologie und das Syrische Medizinbuch*. Berlin: De Gruyter.

Greco-Latin Gynecology in Jewish Robes

The Hebrew Translation of Muscio's *Gynaecia*

CARMEN CABALLERO NAVAS

ABSTRACT: This contribution intends to help broaden our current understanding of the early stages of the formation of the Hebrew corpus of gynecology by contributing new insights derived from the study of one of the first treatises that composed it. To that end, it begins by contextualizing what is considered to be the first systematic translation of gynecological texts into Hebrew from Latin carried out in Provence during the closing years of the twelfth century. Thereafter, it focuses on the analysis of the major gynecological treatise of the translator's program, *Sēfer hatôledet* (The Book of Generation), rendered from Muscio's late antique Latin adaptation of Soranus of Ephesus's Gynecology.

Sēfer hatôledet (*The Book of Generation*) is a Hebrew gynecological treatise produced at an undetermined date at the end of the twelfth century, albeit certainly not later than 1199.¹ It was part of the first systematic translation of medical texts from Latin into Hebrew, completed in Provence between 1197 and 1199 by an alleged convert, frequently referred to in scholarly literature of the last three decades by his pseudonym, Do'eg the Edomite, who translated twenty-four medical works.² This intriguing translator also succeeded in conveying to a learned Jewish audience the synthesis of the main gynecological traditions of antiquity as well as contemporary Latin trends on women's conditions by rendering in Hebrew three gynecological texts, as well as several encyclopedias and general works that included important sections on women's medicine.³

¹ The title paraphrases part of Ron Barkai's assertion that the translator of *Sēfer hatôledet* "had dressed Muscio's *Gynaecia* with Jewish garments" (Barkai 1998, 31; see also 56, where his uses "clothes"). The research for this contribution has been carried out under the auspices of the research project Language and Literature of Rabbinic and Medieval Judaism (FFI2013-43813-P and FFI2016-78171-P), funded by the Spanish Ministry of Science, Innovation, and Universities and the European Regional Development Fund (ERDF). I wish to thank Monica Green for her constant generosity in providing me with wise advice and helpful observations.

² Steinschneider 1893, 711–714. For the list of Hebrew translations, see Paris, Bibliothèque Nationale, Ms héb. 1190, 44r–46r, and its edition by Steinschneider 1888. For a recent edition, see Freudenthal 2018, 37–39. For the English translation, see Barkai 1998, 20–34 and Freudenthal 2013, 118–120. Recently, a further edition and translation has been contributed by Freudenthal, McVaugh and Mesler 2020, 277–278 and 280–282.

³ Barkai 1998, 30–34 and 44–49; Caballero Navas 2021, 351–355.

It is important to bear in mind that, in contrast to their coreligionists who lived in Islamicate societies and some regions of the Iberian Peninsula where Arabic continued to be a means for the transmission of medical knowledge among Jews as late as the fifteenth century, the Jewish communities of the Christian West were unaware of Greco-Arabic science and philosophy until the inauguration of the Hebrew scientific library around the mid-twelfth century. This unprecedented endeavor was based on an immense labor of translation from Arabic and Latin into Hebrew that, growing over two centuries, provided European Jewish audiences with a wealth of Greco-Arabic knowledge.⁴ By the end of the twelfth century, Do'eg the Edomite had contributed significantly to the Hebrew scientific corpus by launching the Hebrew corpus of medicine.

I shall not elaborate on the rationale behind Do'eg the Edomite's translation project as a whole, as it is beyond the scope of this contribution. I would, however, like to draw attention to his pioneering role in providing the Hebrew corpus with purportedly the first Hebrew treatises on women's conditions.⁵ To this end, and with the aim of helping to explain his decision to include gynecology in his translation program as well as his choice of texts, Do'eg's enterprise will be contextualized in the framework of the different contemporary trends that put into words the representations of the female body and its workings, and the views on women's anatomy, physiology, health, and disease in his milieu. The contribution will then analyze *Sēfer hatôledet*, the longest and perhaps most important of the three treatises, rendered from Muscio's Latin adaptation of Soranus of Ephesus's *Gynecology*.⁶ I shall not be able to deal with every relevant aspect of the production of the treatise and its afterlife, but I hope to provide some new insights into both this particular text and the first stages of Hebrew gynecology in its context.

1. The Sources of Do'eg the Edomite: Latin Gynecology in the Long Twelfth Century

As recent scholarship has demonstrated, the eleventh and twelfth centuries bear witness to a revival of Latin literary medical traditions that spread from southern Italy throughout Europe.⁷ Among other fields of medicine, literature on women's health care – its creation, appropriation, accommodation, and dissemination – was at a crucial moment, at a crossroads where different medical traditions, old

⁴ Freudenthal 1995; Freudenthal 2011; Caballero Navas 2011, 329–335.

⁵ Jewish medical writers of the Islamicate world, such as Maimonides, followed their contemporaries in not producing independent gynecological treatises but including gynecology within medical encyclopedias and general works; see Caballero Navas 2009, 33–35. On gynecology in Arabic medical encyclopedias, see note 14 below.

⁶ Barkai 1991; Barkai 1998, 30–34, 50–56.

⁷ Green 2019; Kwakkel and Newton 2019; Glaze 1999, 160–186.

and new, met and overlapped as the foundations were being laid for the canon of gynecological literature that was to circulate in the west up to the end of the fifteenth century and beyond. The medieval Latin corpus of gynecology was thus developed from the syntheses of Latin, Greek, and Arabic texts that emerged around Monte Cassino during the eleventh century, along with a new trend of gynecological literature that originated in Salerno and was represented by a group of texts – *Liber de sinthomatibus mulierum*, *De curis mulierum*, and *De ornatu mulierum* – that circulated independently before they were gathered in a compendium known as the *Trotula*.⁸ This early Latin corpus provided the framework for Do'eg's translation program, which seems to have taken advantage of the three traditions of women's medicine that it synthesized, and that had reached France by the end of the twelfth century.⁹

Monica Green has identified and described at least three distinct stages in the intense labor of recovering ancient gynecology prior to, around, and shortly after the activity of Constantine the African (who died before 1098/99) in Monte Cassino – that is, during the third and fourth quarters of the eleventh century. The “Cassinense gynaecological corpus,” as Green has termed it, was the result of the synthesis and reedition of late antique Latin texts, many of which derived from translations or adaptations of older Greek texts, together with new works created from major editing efforts of some older or fragmentary material, or material that was no longer comprehensible at the time.¹⁰ One of the core texts of the Cassinese corpus, Muscio's *Gynaecia*, an abbreviated translation-adaptation of Soranus of Ephesus's *Gynecology* made around the fifth or sixth century in North Africa, was one of the three treatises rendered into Hebrew by Do'eg, together with one of the new treatises derived from it, *De passionibus mulierum B*.¹¹ The former, analysis of which is the focus of this contribution, was rendered as *Sēfer hatōledet* (*The Book of Generation*).¹² The latter was translated under the title *Sēfer hā'ēm 'el g'alînūs* [*hū' haniqrā' genisias*] (*The Book of the Womb by Galen [which is Called Genecia]*).¹³

⁸ Green 1996a, 128–131; Green 2001; Green 2019, 52.

⁹ Caballero Navas 2021, 352–355.

¹⁰ Green 2019, 48–52. See also Green 1985, 71–194; Hanson and Green 1994; Cadden 1995, 39–53.

¹¹ On Muscio's *Gynaecia*, see Bolton 2015, 89–95, including scholarship on it until the end of the twentieth century; and Hanson and Green 1994, 1053–1060 on its fate and derivatives in the Middle Ages. *De passionibus mulierum B* (Dpm B) was made up from some chapters from Muscio's *Gynaecia*, Pseudo-Cleopatra's *Gynaecia*, and a treatise newly translated from Greek attributed to Metrodora; see Green 2019, 51–52; Hanson and Green 1994, 1054–1056; and Green 2000b, 24–25, for the different versions of *De passionibus mulierum*.

¹² Steinschneider 1888, 7; Barkai 1998, 25, 30–31; Freudenthal 2013, 119. It was edited and studied by Barkai 1991, with a French translation by Michel Garel.

¹³ Steinschneider 1888, 7; Barkai 1998, 25; Freudenthal 2013, 119. It was edited and translated into English by Barkai 1998, 145–180 based on two Italian and Sephardic manuscripts from the fourteenth–sixteenth centuries. After Barkai's edition, the two last folios from the Italian manuscript (Parma, Biblioteca Palatina, Cod. Parm. 2646) have been identified, annexed to Moscow,

Beginning around 1076, Constantine the African bequeathed to the Latin West a wealth of medical knowledge that, translated from Arabic, would thoroughly transform many areas of medicine. Whereas treatises on women's conditions circulated independently in the Latin medical corpus, the Arabic tradition gathered abundant material on specifically feminine ailments in medical encyclopedias.¹⁴ Therefore, although no independent texts on gynecology were rendered by Constantine into Latin, his comprehensive translation program played an important role in the transmission of "Galenized" notions and ideas on sexual differentiation, and female physiology and anatomy, as well as the etiology, symptomatology, and therapy of women's conditions embedded in Arabic works.¹⁵ Among such works, Ibn al-Jazzār's *Zād al-musāfir wa-qūt al-hāḍir* (*Provisions for the Traveler and Nourishment for the Sedentary*) stands out; translated into Latin as *Viaticum peregrinantis*, its sixth book is devoted to diseases affecting sexual organs and contains numerous chapters (ten out of twenty) on women's ailments.¹⁶ The work was also translated into Hebrew by Do'eg the Edomite as *Sēfer yā'ir nātīb* (*The Book of the Illuminated Road*), who attributed it to Ibn al-Jazzār's master, Isaac Israeli.¹⁷ Recent research has revealed that portions of the *Zād al-musāfir*/*Viaticum peregrinantis*, mostly from Do'eg's *Sēfer yā'ir nātīb*, can be found in several Hebrew treatises on women's health care, where they are often quoted without explicit reference to the source – namely, the thirteenth-century *Sēfer 'ahābat nāšīm* (*The Book of Women's Love*) and *Sēfer hayōšer*, whose author also quoted Ibn Tibbon's thirteenth-century rendition from Arabic, and the fifteenth-century *Ša'ar hanāšīm* (*Chapter on Women*).¹⁸

Russian State Library, Ms. Guenzburg 165, 405–406. Finally, another Italian copy of the fourteenth–fifteenth centuries has been identified in Berlin, Staatsbibliothek, Ms. Or. Qu. 1027/11, 97r–101v. Remarkably, the latter concurs with the already known London, Wellcome Institute, 53v–62v (former Jew's College, Montefiore Ms. 440) in also preserving a copy of *Sēfer hatōledet*. The "subtitle" has been quoted according to Ms. Wellcome, f. 53v, and Ms. Parma, f. 47r.

¹⁴ Green 1985, 71–128; Bos 1997, 51; Verskin 2020, 293–94. On the production and diffusion of medical encyclopedias in the Islamic world, see Jacquart and Micheau 1996, 55–86.

¹⁵ Despite the fact that he wrote only one gynecological treatise, on the anatomy of the uterus, Galen is to a large extent accountable for the nosology, etiology, and therapeutics of women's diseases that would form the foundation of Arab gynecology; see Pormann and Savage-Smith 2007, 43–45, 51–55. For Galen's dissemination in Arabic, see all the contributions in part 2, "Galen in the Medieval Islamic World" of Bouras-Vallianatos and Zipser 2019, 163–318. For the translation of his works from Arabic into Latin, see also the contributions by Green (319–342) and Long (343–358) in part 3 of the same book.

¹⁶ *Zād al-musāfir*'s sixth book was edited and translated into English by Bos 1997.

¹⁷ Steinschneider 1888, 7; Barkai 1998, 25; Freudenthal 2013, 119. This was one of the most popular medical encyclopedias among medieval Jews, who translated it into Hebrew three times. In addition to Do'eg's version, it was translated once more from Constantine's Latin rendition around the thirteenth century by Abraham ben Isaac, who entitled it *Šēdā lā'ōrehīm* (*Provision for the Travelers*). It was translated again in 1259, but this time from Arabic, by Moshe ibn Tibbon, who entitled it *Šēdat haderākīm* (*Provision for the Roads*); see Steinschneider 1893, 703–705 and Zonta 2011, 23, 32 and 99, respectively.

¹⁸ Caballero Navas 2003; Caballero Navas 2004, 27–30; Caballero Navas 2006a, 384–385; Caballero Navas 2021, 361 and 366 (appendix).

The Hippocratic *Aphorisms*, most of whose particula V (aphorisms 28–62) was devoted to women's conditions, was also translated by Do'eg.¹⁹ However, this was not the first version of the *Aphorisms* available in Hebrew to the Jewish communities of the Mediterranean south. Prior to Do'eg's translation, *Sēfer 'Asaf* or *Sēfer harēfûôt* (*Book of Asaf* or *Book of Medicines*), the first Hebrew book of medicine, which predated the launching of the Hebrew medical corpus by at least two centuries, included parts of the *Aphorisms*, together with haggadic traditions and other materials.²⁰ This book, which was circulating in Provence by the end of the twelfth century,²¹ is relevant to the history of Jewish medicine for many other reasons. I shall get back to it later on account of its apologetic approach concerning medical knowledge.

The third and last tradition of Latin gynecology to emerge from southern Italy consisted of a group of texts originating from Salerno around the mid-twelfth century. These were based, separately, on the *Viaticum peregrinantis* (Constantine's translation from Ibn al-Jazzār's *Zād al-musāfir*) and an ancient collection of gynecological prescriptions, the treatments based on the actual practice of the healer Trota, and empirical cosmetic recipes collected from women on both the mainland of southern Italy and the island of Sicily. All this material crystallized into three treatises that were the most widely circulating texts on women's health care until the end of the fifteenth century, either separately or as an ensemble, forming the compendium known as the *Trotula*.²² Do'eg the Edomite seems to have produced the first ever translation from Latin into a different language of two of the three Salernitan treatises: *Liber de sinthomatibus mulierum*, version 3 (*Book on the Conditions of Women*) and *De ornatu mulierum*, version 2 (*On Women's Cosmetics*).²³ Interestingly, Do'eg specifies in the prologue to his translation program that the treatise he calls *Sēfer hasēter* (*Book of the Secret*) "treats some of the

¹⁹ It was entitled *Sēfer 'agûr* (*Book of Accumulation*); see Steinschneider 1888, 6–8; Barkai 1998, 23; Freudenthal 2013, 118; Bos 2016, 3–6. A translation of the *Aphorisms* from Greek into Latin had become available by the end of the eleventh century in the same context where the *Gynaecia* and *Dpm B* were produced; see Wallis 2011. I am indebted to Monica Green for bringing this translation to my attention.

²⁰ Its author and date of composition are uncertain, but it was circulating in the tenth century in southern Italy; see Lieber 1984, 233–249 and Lieber 1991, 18–25. On the paraphrase of the Hippocratic *Aphorisms* in the book, see Visi 2016, 171–182, and Visi 2021.

²¹ David Qimhi (ca. 1160–ca. 1235) alluded to the book in his *Commentary on Hosea* (on 14:8); see Lieber 1984, 113–114 n. 36.

²² Green 1996a, 128–131; Green 2001.

²³ Ron Barkai identified, edited, and translated into English the only extant copy known up to that time of the Hebrew translation of *Liber de sinthomatibus mulierum*, version 3 (*LSM 3*); see Barkai 1998, 61–64, 181–191. Fragments from *De ornatu mulierum* (*DOM*) in Hebrew were identified only some years later, when an apparently new treatise entitled *Šē'ar yāšûb* (*A Remnant Shall Return*, after Isaiah 10:21) was discovered. In fact, this was a thirteenth-century (partial?) edition of Do'eg's translation that preserved portions of the two Latin treatises, including fragments from the *LSM 3* that the only manuscript copy known to that date had not; see Caballero Navas 2006a.

secrets of women and their cosmetics.”²⁴ He apparently believed that both Latin treatises were part of the same work, which brought together knowledge on the care of women’s health and beauty. While this all-encompassing understanding of women’s health care was shared by some later medieval Hebrew treatises,²⁵ the composite form of *Sēfer hasēter* is most likely due to the Latin manuscript he was using, as both *Liber de sinthomatibus mulierum*, version 3 and *De ornatu mulierum*, version 2 circulated at times together.²⁶

In Do’eg’s manifest attempt to ensure that Jewish practitioners had access to the newest trends in medicine, for which relied on the Latin literary medical traditions derived from or associated with the Cassinese/Salernitan context, he also incorporated gynecology into his program. He thus translated two texts belonging to the most widely acknowledged Latin gynecological tradition at the time, embodied in Muscio’s *Gynaecia* and its derivatives and two portions of the *Trotula* ensemble, which would supersede the former before long.²⁷

2. *Sēfer hatôledet*

According to the brief description included in the prologue to Do’eg’s translation program, *Sēfer hatôledet* “treats of childbirth, the womb, and pregnancy. They call it *Genesisias*.”²⁸ Although source or author is mentioned neither there nor in the extant manuscript copies of the treatise, by the end of the nineteenth century it was identified as Muscio’s *Gynaecia* – that is, Muscio’s late antique abridged and reworked Latin version of Soranus of Ephesus’s *Gynecology*, presented in a question-and-answer form.²⁹ A final section of *Sēfer hatôledet* also includes the *Pessaria*, a collection of recipes for vaginal suppositories and other gynecological

²⁴ Steinschneider 1888, 7; Freudenthal 2013, 119. I have deliberately rendered the title literally in order to retain the manifold meanings with which authors and translators of medieval Hebrew texts on women’s health care invested the word. See the discussion of “secrets of women” in Caballero Navas 2006b.

²⁵ Caballero Navas 2004, 71–98.

²⁶ See, e.g. Erfurt, Amplonian, Ms. Amplonian Q 204 Wiesbaden; Landesbibliothek, Ms. 56; and Wrocław, Ms. III.F.10. For the description of the manuscripts, see Green 1996b, 146 (item 23), 173 (item 117), and 175 (item 121), respectively. In a personal communication, Monica Green has confirmed that the latter also contains the *De curis mulierum* but not as part of the normal ensemble arrangement.

²⁷ Hanson and Green 1994, 1055–1057.

²⁸ Steinschneider 1888, 7; Freudenthal, McVaugh and Mesler 2020, 281.

²⁹ Scholars have traditionally described Muscio’s version as being apparently fused with another Soranian gynecological work, *Cateperotiana*, written in the question-and-answer form. Lesley Bolton has recently and very convincingly called into question the existence of such a work, attributing it to Valentine Rose’s 1882 editorial choices and suggesting that the question-and-answer-format must be credited to Muscio’s initiative; see Bolton 2015, 48–67. She offers a new edition and English translation of the Latin treatise (106–403). For a previous English translation, see Hess 1998.

medicaments that were appended to the Latin *Gynaecia* in some of the manuscripts.³⁰ It does not, however, contain the fetus-in-utero figures.³¹

Sēfer hatōledet has been preserved in four manuscripts, three of which were used by Ron Barkai to prepare his critical edition before the fourth was identified.³² One of the most remarkable features of the book is its structure. It is presented as a dialogue between the biblical patriarch Jacob and his daughter Dinah, who addresses numerous questions to her father about women's conditions relating to their life cycle and the management of childbirth. Hence, the prologue, which differs from the prologue to the Latin version, is followed by thirty questions (and answers) generally divided into a series of other related issues, occasionally also in question-and-answer format. The thirty main question-and-answer pairs are introduced by the formula *השיב אביה ... ותשאל דינה* ("Dinah asked ... Her father answered").

Let us begin by describing and analyzing the content and format of *Sēfer hatōledet* in relation to its Latin source. For comparison with the Latin text, Barkai used the edition by Valentin Rose (1882), and its translation into Italian by Rino Radicchi (1970).³³ Although I have consulted both of them, I have based my comparison (see table 1) on the recent work by Lesley Annette Bolton, who based her edition on the two oldest Latin manuscripts.³⁴ I have also consulted the third oldest manuscript, now in Copenhagen, copied around the 1060s or early 1070s at Monte Cassino, which presents important parallels with the Hebrew text, and whose significance for the Hebrew gynecological corpus I hope to demonstrate in what follows.³⁵ I have inspected the four Hebrew manuscripts as well, although I follow Barkai's edition for the references unless otherwise specified.

³⁰ Barkai 1991, 212–223, 276–284 (French translation and Hebrew edition, respectively); Hanson and Green 1994, 1048, 1072 (listing a total of seven Latin manuscripts); Bolton 2015, 419–441 (Latin edition and English translation).

³¹ Hanson and Green 1994, 1048 and 1073; Bolton 2015, 73–85 and 446–523. The only instance so far of the figures in Hebrew occurs at the end of a fourteenth century brief tract on the difficulties of birth, Paris, BnF, ms hébr. 1120, ff. 66v–70v; see Barkai 1989.

³² Barkai 1991, 127–284 (edition and French translation). He based his critical edition (see 121–123) on London, Wellcome Institute, Hebrew Ms A37/2, 25v–53r (formerly London, BL, Montefiore, Ms 420/2; fifteenth–sixteenth century, Sephardic script), which he collated with Vatican, Biblioteca Apostolica, Ms ebr. 366/9, 85r–104r (fifteenth century, Sephardic script) and Vatican, Biblioteca Apostolica, Ms ebr. 360/5, 1r–35r (1478, Italian script). The last, fragmentary manuscript to be identified is Berlin, Staatsbibliothek, Ms Or. Qu. 1027/8, 92r–96v. It was copied in the fourteenth or fifteenth century in Italian script and preserves part of Question 26 (How shall we treat the wounds in the womb?) to Question 30, together with the *Pessaria*. For the structure of the Hebrew text in correlation to its Latin source, see table 1.

³³ Barkai 1991, 121–123.

³⁴ Bolton 2015, 96, 108–403 (edition and English translation). The two manuscripts – Brussels, Bibliothèque Royale de Belgique MS 3701–15, 15r–31v, ninth century; and Florence, Biblioteca Medicea-Laurenziana pl. 73 cod.1, ff. 188va–189vb, 191vb–216vb, from the ninth/tenth century – are referred to by editors as *B* and *L*, respectively.

³⁵ Copenhagen, Det Kongelige Bibliotek, Gamle Kgl. Samling MS 1653, ff. 3r–28v. Editors refer to it as manuscript *H* (for "Hafnensis"); see Kwakkel and Newton 2019, 20–21 and 40–41; Bolton 2015, 96; Green 2019, 51.

Muscio's <i>Gynaecia</i> Contents	Chapters (Muscio)	Do'eg's <i>Sēfer hatôledet</i> Contents and layout
Prologue	1	missing <i>Fragment displaced</i> (see Q2 below)
–	–	Hebrew Prologue
<i>[quali positione figurata est matrix?]</i>	7	Q1. What is the structure and appearance of the womb? <i>Displaced, in relation to Bolton's edition</i>
<i>The obstetrix</i>	2	Q2. Into how many parts is divided the account of women? ³⁶
Nature of the womb	3–7, 9–11	<i>1 displaced in relation to Latin prologue</i>
Nature of the vagina	8	<i>2 slight addition</i>
Nature of female testicles	12	<i>3, 6, and 8 partial omissions</i> <i>7 (see Q1 above)</i> <i>11 missing</i>
Menstruation	13–22	Q3. How do women's purgation and purification come about?
Whether virginity is healthy	23	<i>15, 21–22 slight modifications</i>
Conception	24–26	Q4. What are the signs of those capable of conceiving? (24–46)
Sex determination	27	<i>25, 27, 37, and 40 partial omissions</i>
Prenatal care, including <i>cissa</i>	28–36	<i>29, 32, 38–39 missing</i>
Fetal membranes/umbilical	37–43	
Signs of abortion/miscarriage	44	
Normal delivery	45–55	Q5. How to properly prepare the woman at the time of childbirth (47–55)
Postpartum care	56–58	Q6. How should the woman be treated after giving birth?
Breast care/breastfeeding	59–63	<i>62 missing</i>
Is an infant worth rearing?	64–65	Q7. By how many signs are we to recognize whether the foetus will live and be weaned? (64–75)
Neonate care	66–73	
Wetnurse/milk supply	74–87	Q8. Should the baby be fed by its mother's milk or from a wet nurse's? (76–99)
Infant care: bathing/cleaning	88–94	<i>77 modified</i> <i>82 and 91 missing</i>
Infant care: feeding/walking	95–120	Q9. What is the sign to recognize the right moment to feed [the baby]? (100–101)
Infant ailments	121–124	<i>102–105 missing</i> (see discussion below)

³⁶ Medieval Hebrew medical texts generally refer to the attention and care of women's health as עניני נשים (women's matters) or even סתרי נשים (women's secrets). The term מעשה used here is one of those Hebrew words with a great variety of meanings, whose wide semantic range poses at times for the modern translator the challenge that it did for medieval exegetes. In this context, Do'eg the Edomite sought to convey through this unusual choice the gist of "*mulierum traditionem*" – that is, the "account" or "story" of the "activities," "deeds," and "treatments" of women.

Muscio's <i>Gynaecia</i> Contents	Chapters (Muscio)	Do'eg's <i>Sēfer hatōledet</i> Contents and layout
		Q10. When (how many days) will the belly button fall out? (106–24) <i>109–13 and 115 missing</i> <i>121 and 124 modified</i>
Flux and constriction	125–126	<i>Missing</i>
Retention of the menses	127	Q11. What can we do for a woman whose menstruation is retained? <i>Final part omitted</i>
Inflammation of the womb	128	Q12. How shall we treat her when inflammation of the womb occurs?
Satyriasis	129	<i>129 partial omissions</i>
Suffocation of the womb	130	Q13. How shall we treat the suffocation of the womb?
Tension of the womb	131	<i>130 partial omission and slight modification</i>
Inflation of the womb	132	Q14. How shall we treat the inflation of the womb?
Swelling of the womb	133	<i>133 partial omission</i>
Hardening of the womb	134	
Pain of the womb	135	<i>Missing</i>
<i>Mola</i> of the womb	136	Q15. How shall we treat the swelling of the womb called <i>mola</i> ? <i>Modified</i>
Bleeding of the womb	137	Q16. How shall we treat the hemorrhage/flow caused by the difficulty of childbirth or abortion?
Flux of blood	138	Q17. How shall we treat the excessive menstrual flow [flow of flowers]? <i>Partial omissions</i>
Flux of seed	139	Q18. How shall we treat the secretion of women's semen?
Lassitude of the womb	140	<i>139–140 partial omissions</i>
Paralysis of the womb	141	<i>141 modified</i>
Flexions of the womb	142	Q19. How shall we treat the inclination of the womb?
Sterility	143	Q20. Does a treatment for sterility exist? <i>Modified</i>
Difficult birthing	144–172	Q21. How shall we treat arrested and painful birthing? (144–153) <i>152–153 partial omission</i>
		Q22. What can the midwife do when the position of the fetus in the belly is contrary to nature? (154–168) <i>Addition after 154</i> <i>Change in order: 155 after 157.</i>

Muscio's <i>Gynaecia</i> Contents	Chapters (Muscio)	Do'eg's <i>Sēfer hatôledet</i> Contents and layout
		Q23. What are other occurrences [that affect the parturient] and how to treat them? (168–170) ³⁷
		Q24. How shall we cut up the fetus? (171–172)
Retention of the afterbirth	173	Q25. What shall we do if the placenta remains inside?
Abscesses in female parts	174	<i>174 modified</i>
Lesions of the womb	175	Q26. How shall we treat the wounds in the womb?
Cancer of the womb	176	Q27. What shall we do when a cancer occurs in the womb?
Excessive clitoris	177	<i>176 significantly modified</i>
<i>Cercosis</i>	178	<i>177–178 partial omissions</i>
Growths in female parts	179	
Fissures the womb	180	
Condylomata in the womb	181	
Hemorrhoids in the womb	182	Q28. Regarding the hemorrhoids that occur in the womb, called 'emori'ideš, how shall we treat them? <i>Modified</i>
Prolapse of the womb	183	Q29. What shall we do against the prolapse of the womb?
Closure of orifice/ <i>phimosis</i>	184	
Closure of womb/ <i>atretia</i>	185	
Use of vaginal speculum	186	Q30. Which is the proper way to be opened [by] the 'ôrgî? ³⁸ <i>Modified</i>
missing ³⁹		<i>Pessaria</i> <i>15 and 16 missing</i>
<i>Fetus-in-utero</i> illustrations		<i>missing</i>

Table 1. Summary of the content and format of Muscio's *Gynaecia vis-à-vis* Do'eg's *Sēfer hatôledet*. I have used table 2 and table 3 from Bolton 2015, 9 and 18, respectively. The numbers in italics in the right-hand column following or below each Question (Q) pertain to chapters in Bolton's edition and are followed by brief commentaries on how they have been rendered (or not) in the Hebrew version. Unless otherwise specified, the translations from Hebrew into English are mine.

³⁷ 168 begins in Q22 and continues in Q23.

³⁸ Latin *organo* – that is, “implement” or vaginal speculum; see Bolton 2015, 237 n. 306.

³⁹ Neither of the two oldest manuscripts included the *Pessaria*, although both mention that it should follow the *Gynaecia*. Only the manuscript *H* (3r–28v), which stems from Monte Cassino, and its descendants document the *Pessaria*; see Bolton 2015, 96, 99, 419–441, where she includes the edition by Rose (1882, 120–128).

One of the first features revealed by this comparison is that some chapters from the *Gynaecia* are totally or partially omitted from *Sēfer hatôledet*, while some others have been slightly modified, and additions have occasionally been made, as well as the order changed. We obviously cannot rule out the possibility that these divergences might be result from the vicissitudes of textual transmission, at least in part. No Hebrew manuscript dating before the fourteenth century has been preserved, which makes it very difficult to figure out the quality of the copies on which the scribes depended or their ability to understand Do'eg's incipient scientific Hebrew language. It has nonetheless been possible to establish that, in general, omissions and departures from the Latin text are due mainly to two factors: the Latin manuscript from which the translator rendered the text into Hebrew, and deliberate editorial decisions.

2.1. The Latin Manuscript Tradition

A series of major and minor elements are absent from *Sēfer hatôledet* or differ from those present in the two oldest Latin manuscripts (*B* and *L*) on which Bolton based her edition, but not from manuscript Copenhagen (*H*).⁴⁰ Comparing the Hebrew text and manuscript *H* provides interesting results in the form of significant parallels between both of them, which have been collected in the appendix end of the chapter.

Three passages that illustrate this close relationship are presented below in more detail. The first consists of a paragraph on how to treat an infant's runny mouth and nose, which features in the final part of Question 10 in the Hebrew version, just before the end of book I of the *Gynaecia*.⁴¹

<i>Sēfer hatôledet</i>	Manuscript <i>H</i>
[Q10] [...] ולהזלת פיו או נחיריו ניתן אליו מים בדבש מבושל מעט. ועת יחול השעול עליו נעזור אליו כן. נקח זרע פשתן. ושקדן. ומיץ ריקליציא. ומרקחת דיאדרא גאגאן. ונערב הכל יחד ונרגילהו בו. ובכבא עליו מקרים אחרים כמו חמום מוח וכפיו. ואשר החלק האחרון מראשו יהיה עמוק עם	139. <i>ad tussiculum eorum quid damus? <ex> semine lini amygdalis suco gliquiritiae et draganto utimur electuariis et melle.</i> 140. <i>quid est valitudo quae apud infantes siriasis appellatur? cerebri est fervor cum meningis, ita ut occipitum infantis concavum fiat, cum igneis et ferventissimis febribus.</i> 141. <i>si vero ventrem infans solverit quid faciemus? si adhuc lactat, omnia quae adstringere</i>

⁴⁰ Barkai 1991, 123 n. 20. This is consistent with the claim by Green 2021, 2 that the entire late medieval tradition of Muscio, up until the humanist revival of the fifteenth century, was based on the *H* tradition of manuscripts. Bolton 2015 refers on occasion to manuscript *H*, when she considers it necessary (see pages 96–97), whereas Rose 1882 based his edition on all three manuscripts, along with references to other two later exemplars.

⁴¹ Barkai 1991, 243 (Hebrew), 159 (French translation). The only Hebrew manuscript to mark the transition between books I and II is Ms. Vat. ebr. 360, 12v25. It never mentions a book I, but marks the opening of a book II just before the beginning of question 11, on menstrual retention (chapter 127 in Bolton's edition).

Sēfer hatôledet

Manuscript H

הַתַּעֲמֵדָת קְדָחוֹת חֲמוֹת וְנִלְהָבוֹת מֵאֵד.⁴² אוֹ
שֶׁלֹּשׁ. אִם הוּא יוֹנֵק יִתְּכֵן לֶתֶת לַמִּינִיקָת
דְּבָרִים עוֹצְרִים גַּם קָלִים וְקָרִים וְנִנְיָח עָלָיו
תַּחֲבוּשַׁת מִכְפּוֹת תַּמְרִים וּמֵן לַנְטִיקוּלָא וְאִם
הוּא עוֹצֵר נִרְגִּיל הַמִּינִיקָת עִם שְׁמָנִים וְדִרְבַּי
מְרִטִיבִים לַהֲנִיעַ הַבֶּטֶן. סֵפֶר שְׁנִי

The discharge from mouth and nostrils will be treated with water mixed with lightly boiled honey. And when he has a cough, we will treat him in the following manner: we will take flax seeds, almonds and liquorice juice, and mix everything with electuary of tragacanth; we will treat the infant with it. If the infant has other ailments, such as inflammation of head and hands, in such a way that the back of the head becomes depressed, with very hot and intense fevers, o diarrhea, if he is suckling, it is possible to give the wet nurse astringent, and also light and cold things. We will apply a poultice of date kernels and lentils to him. If he is constipated, the wet nurse should take oils and moistening things to move the bowel. Book two.

possunt et nutrici eius damus epithima scilicet quod constat de palmulis et lenticula inducimus. si vero plurimis diebus non fuerit assellatum, mulsam et omnia quae ventrem mollire possunt etiam mammae dabimus. hactenus de cateperotianis transtulimus. et quoniam omnium valitudinum speciales curas non habent, quas vel maxime obstetrices nosse convenit, placuit ut ad gynaecea triacontados conferamus. inde plena omnium cura insinuari potest. Explicit liber primus. Incipit liber secundus.

139. What do we give for their cough? We use lozenges (made) from linseed, almonds, liquorice juice and tragacanth, and honey. 140. What is the condition which is called siriasis amongst infants? It is an inflammation of the brain along with the meninges, in such a way that the back of the head becomes concave, (along) with fiery and extremely intense fevers. 141. If, however, the infant should loose (its) bowel, what should we do? If it is still taking suck, we give all things which can constrict to its wetnurse and we put on (the infant) a compress which consists namely of dates and lentil. If, however, it has not defecated for several days, we will also give to the wetnurse honey-water and all things which can soften the bowel. Thus far we have translated from the *Cateperotiana*. And since they do not have the special treatments of all conditions which it is especially fitting for *obstetrices* to know, it seemed right that we consult the women's conditions of the *Triacontas*. For, from there, the treatment of all things can be made known. First book ends. Second book begins.

This excerpt corresponds to chapter 124 of Bolton's edition – *ad tussiculum eorum quid damus* ("what do we give for their cough?") – most of which is missing or corrupt in manuscripts *B* and *L*. Manuscript *H*, however, contains an extract of considerable length that includes the end of book I and the beginning of book II.⁴³ Noticeably, the Hebrew text is shorter than its Latin parallel. Nevertheless, this divergence does not seem to be based on the source before the translator's eyes, but it might be due either to an editorial decision, such as those that made Do'eg pass over whatever he apparently thought superfluous or conflicted with his medical views (see discussion below), or to the intervention of later editors or copyists.

⁴² I have amended here according to Ms. Vat. ebr. 360, 12v19.

⁴³ Manuscript *H*, 9v. See also Bolton 2015, 249 n. 231, where she includes the edition and translation of paragraphs 139–141 from Rose 1882, 45–46. I have used that edition and Bolton's English translation for the comparison.

The second example also involves an addition, along with a change in the order of chapters *vis-à-vis* the oldest manuscripts. It occurs in Question 22, devoted to the midwife's management of difficult birth, which corresponds to chapters 154–168 in Bolton's edition.

Sēfer hatōledet

Manuscript H

[Q22] [...] אם יהיה זה שהעובר מונח בחלק הראשון מצד פי האם. ואם מונח לאחר כנגד פי האם יתכן להשיבה על ברכיה או הפוכה על פניה. ואם העובר בצד הימני יתכן להשיבה על השמאלי. ואם בשמאלי יתכן להשיבה על הימני. ואם בהנחות האלה לא יוכל העובר לצאת אז יאות אשר המילדת שעשתה כבר צפרניה תכניס אצבעות ידה השמאלית משוחים בשמן ורצופים יחד בפי הרחם בעת שהאם פותחת בתולדה ותנהג העובר המקום [הראוי]. ואם הוא נעוץ מאד יתכן לשרש אותו ממקום ניעוצו בנחת. אך יתכן לנו לבאר תחלה כל הענינים הנאותים אל היולדת כתקנה ותולדתה ואחר כן לבאר ההפך, והענין הראשון שהוא כפי התולדת הוא זה והוא טוב מכל אשר החלקים זה הוא כאשר יחל העובר לנוע תנועה היציאה ואין לפחד שלא יפשו ידיו ושלא יצא מחר וזה הוא כפי התולדת. השני הוא כאשר יחל העובר לרדת כנגד האם יתכן שהמילדת הזהירה אשר בהגיעו לידיה תקחהו ותקבלהו ותנהגה לחוץ. השלישי הוא אם שוכב הפוך או עקום אשר יתכן שתתקנהו בידיה בנחת. ואם תמצא הראש ראשון תחזיק ואם תמצא הרגלים תחלה תחזיק בהם ותביאם כנגד היציאה.

[...] *et si in priore parte ab orificio matricis pecus infixum est, supinam collocare, in genua etiam et ad dentes, si retro ab orificio matricis infans est. si vero in latere dextro est, in sinistrum latus collocare, si in sinistro, in latus adversum. si vero haec schemata infantem corrigere non possunt, tunc diligenter unguibus incisus et oleo inlinitis et in unum conductis digitis sinistram manum in orificio vulvae mittere debebit, illo scilicet tempore quo se matrix naturaliter aperit, et adprehensio pecude ad competentem locum corrigere. si vero valde infixum est, prius a loco inopportuno evellere et sic retrorsus revocatum ad orificium matricis corrigere. Sed antequam schemata illa ponimus quae contra naturam sunt, melius facemus si ea qua sunt exoptabilia et secundum naturam, ipsa primo ponamus. 12. hic est secundum naturam primus et melior ab omnibus partus. et quidem cum labi coeperit, nullus metus subest ne manus extendant et ibi remaneat. (figure I). 13. et hic secundum naturam est. sed secundus partus. itaque cum occurrere coeperit, sollicita debet esse obstetrix ut cum ad manus pervenerit, teneat illas et sic adducat eum. (figure II). 14. si in divexum iacet, quid faciendum est? inmissa manu obstetrix eum componat, et si caput proximum invenit, ipsum teneat, si pedes ipsius, et adducat. TERTIUS PARTUS. (figure III).*

[This] if the fetus is placed in the forward part from the orifice of the womb. But if it is placed at the back, against the orifice of the womb, she must be laid on her knees or upside down on her face. If the fetus is on the right side, she must be laid on the left side, and if it is in the left side, she must be laid on her right side. If despite these positions the fetus is not able to come forth, the midwife, after cutting her nails, should insert the fingers of her left hand, anointed with oil and drawn into one, into the orifice of the womb at the moment that it opens naturally and steer the fetus to the appropriate place. If it is

[...] If the fetus is attached to the forward region from the orifice of the womb, she must be set on her back; or on her knees and face downwards if the infant is placed in the region backward from the orifice of the womb. But if it is on the right side, she must be laid on the left side, and if it is on the left side, [she] on the opposite side. But if the position of the infant could not be set right, then [the midwife] should diligently introduce the fingers of the left hand, drawn into one and after having been oiled and nails cut, into the orifice of the womb when it opens naturally, grasp the foetus and restore it to the right position. If, however, it is

*Sēfer hatôledet*Manuscript *H*

firmly attached, it will be necessary to pull it out gently from where it is rooted. But we must clarify first all issues concerning the parturient and normal childbirth, and afterwards explain the opposite [difficult birth]. The first case [birth position] is that according to nature, the best of all of them, when the fetus begins to move towards the passage out and there is no fear that it will stretch out its hands or that it will not come out quickly; this is according to nature. The second case is when the fetus begins to come down towards the [orifice of the] womb and, when it arrives, the agile midwife will take and receive it in her hands and guide it out. The third issue is when the fetus lies in an inverted or distorted position and she should straighten it up with her hands gently; if she finds that the head comes first, she should hold it; but if she finds that the feet come first, she should hold them and bring them towards the exit.

strongly fixed, first of all she must root it out from the inconvenient place and in this way push backwards and return it correctly to the orifice of the womb. But before describing those positions which are against nature, we will better describe those positions more desirable and according to nature. This is the first birth [position] according to nature and it is the best of all them; indeed, when [the foetus] begins to descend, there is no fear that it extends its hands and remains there. (figure I). Also the second birth is according to nature; and so, when it begins to descend, the midwife must be attentive so that when she reaches its hands, holds them and hence draws it out. (figure II). If it lies in a transverse position, what ought to be done? With her hand inserted, the midwife should put it in order; if she finds the head nearer [the orifice of the womb] she should grasp it, and if she finds its feet, draw out. THIRD BIRTH (figure III).

Starting at the end of chapter 154, on the unnatural position of the fetus, the Hebrew version expands with a lengthy excerpt, which is followed by the portions corresponding to chapters 156 and 157, and continues with chapter 155, followed by chapter 158.⁴⁴ Both the additional extract and the reordering of chapters mirror the eleventh century Cassinese editorial innovations present in manuscript *H*.⁴⁵ The addition introduces the fetus-in-utero figures and accompanies the first three of them, numbered and embedded in the text after each one of their descriptions and instructions to enable birthing. Furthermore, the third fetal position, both described and depicted as a single infant in transverse position with both arms outstretched, represents one of the innovations of manuscript *H* adopted in the Hebrew version.⁴⁶ Yet the figures have not been reproduced in Hebrew – or at least they have not been preserved in any of the extant manuscripts – even though ex-

⁴⁴ Barkai 1991, 260–261, 189–190 (French translation). See also Bolton 2015, 334–337.

⁴⁵ Manuscript *H*, 17r10–17v5 (right column). On the Cassinese editorial innovations, see Green 2019, 51–52, 54.

⁴⁶ Another innovation consists of omitting the reference to the possibility of twelve fetuses in a single pregnancy, which the oldest manuscripts included, restricting it to a maximum of four, which the Hebrew version also adopted; see Manuscript *H*, 19v, right hand column, “fourteenth birth”; Barkai 1991, 262 and 191 (French translation); and Bolton 2015, 342–343. The allusion to twelve fetuses was also eliminated from Q21:152, on birthing impediments; see Manuscript *H*, 16v5; Barkai 1991, 259; Bolton 2015, 328–329.

planations pertaining to each one of the fetal positions have been carefully numbered.⁴⁷

In the light of the number and significance of features shared by the Hebrew manuscripts and manuscript *H*, it seems reasonable to suggest that Do'eg the Edomite produced his translation based on the *H* tradition of manuscripts. Along with the evidence provided by the examples, it is relevant to this discussion to bear in mind that the production of manuscript *H* at the abbey of Monte Cassino led to two editing campaigns, the first of which resulted in the treatise *De passionibus mulierum B*, another of the three gynecological treatises translated by Do'eg.⁴⁸ That means that both texts – the *Gynaecia* and the *De passionibus mulierum B* – must have reached the south of France, where Do'eg carried out his translation activity, around the same time, whether together or perhaps separately. We do not know the whereabouts of manuscript *H* from the time it was copied at Monte Cassino until the fourteenth century, when its presence is documented in England.⁴⁹ But surely other complete or partial copies ensued, not all of which have necessarily reached us or have been so far (correctly) identified. One such exemplar is kept in Madrid, Biblioteca Nacional, MS 4234 (manuscript *M*), which includes a group of eight gynecological texts stemming from Monte Cassino. If Green's recent suggestion that the first part of the Latin manuscript could have been copied in France in the second half of the twelfth century is confirmed, it would provide definite evidence of its circulation in Do'eg's milieu.⁵⁰ The manuscript brings together a copy of Muscio's *Gynaecia* made from manuscript *H*, which encompasses the *Pessaria* but omits the fetus-in-utero drawings, and the *De passionibus mulierum B*, attributed to Galen just as in the Hebrew version.⁵¹ Unfortunately, a considerable part for Book I of the *Gynaecia* seems to have been mislaid, as the text is interrupted abruptly in the middle of the chapter on the signs for recognizing when menstruation will occur for the first time at the end of folio 1v,⁵² whereas

⁴⁷ I have indicated the position of the figures in the Latin text between brackets. For the edition, I have followed Rose 1882, 84 (XVIII.11), which I have collated with manuscript *H*. For an Italian translation of the excerpt, see Radicchi 1970, 165–169.

⁴⁸ See note 13.

⁴⁹ Green 2011, 191.

⁵⁰ Manuscript *M* was listed in relation to Latin translations or adaptations of Soranus's *Gynaecology* and derivative works by Hanson and Green 1994, 1072, 1073–1074. There and in subsequent academic publications it was ascribed to the thirteenth century (Green 2000b, 9, 12, 24–25, 33; Barkai 1998, 56 n. 18; Bolton 2015, 524). Green has moved the date forward to the second half of the twelfth century in more recent work, such as Green 2016 (cited with permission of the author).

⁵¹ Manuscript *M*, 1r–12r and 12v–16v, respectively. It also incorporates fragments of *De passionibus mulierum* Urtext (28r–v), *De passionibus mulierum A* (31r–32r), and an abbreviated version of *Genecia Cleopatre* (28v–31r); see Green 2000b, 9. The manuscript has been digitized and can be accessed at “Tratados médicos (Manuscrito),” Biblioteca Nacional de España. Biblioteca Digital Hispánica, <http://bdh-rd.bne.es/viewer.vm?id=0000106820&page=1>.

⁵² Chapter 22 in Bolton 2015, 156 and part of Question 3 in the Hebrew version (Barkai 1991, 230).

folio 2r begins just at the end of the chapter on difficult birth and the beginning of the chapter on the causes for this affliction that pertain to the woman herself.⁵³ The digital inspection of the manuscript seems to support the idea that the extant fragments follow manuscript *H* closely. Indeed, it also seems to find some echo within the Hebrew version at times. For example, because manuscript *M*, like the Hebrew extant manuscripts, does not reproduce the fetus-in-utero figures, it takes special care to number every single fetal position, including the two first ones, which are not numbered in Manuscript *H*, possibly as a reading aid.⁵⁴ So does the Hebrew version, although it identifies each one as ענין (“issue, matter”) instead of *partus*, perhaps because the translator considered it most appropriate to refer to them as “cases.” We do not know if he could see drawings of fetal positions.

The last example is part of Question 3 and concerns the age at which women stop menstruating. Curiously, the Hebrew text appears to conflate two different Latin passages relating to women’s age and to the length of the menstrual cycle, respectively. The former is part of chapter 15 in Bolton’s edition, whereas the latter is part of chapter 13.⁵⁵ Yet what intrigues me here is that, despite the confusion between days and years that has occurred in Hebrew, the figures referring to “cessation” concur with those in manuscript *M*, lv18–19:

<i>Gynaecia</i>	<i>Sēfer hatōledet</i>	Manuscript <i>H</i>	Manuscript <i>M</i>
[...] <i>plerisque tamen neque in quadragesimum annum cessat neque post quinquagesimum perseverat.</i>	וכאשר יחל [...] [Q3] לסוף שלשים [יום] יהיה ונפסק לסוף ארבעים יום ולפעמים לסוף ארבעים לחמשה.	[...] <i>plerisque tamen neque usque ad XL. annum cessat neque post XL. perseverat</i>	[...] <i>plerisque tamen neque usque ad XL. cessat neque post XL.V. perseverat</i>
In most cases, however, neither does it stop before the fortieth year, nor does it persist after the fiftieth.	[...] when [menstruation] begins at the end of thirty days, it will cease at the end of forty days, and sometimes at the end of forty-five.	[...] in most cases, however, neither does it stop before the fortieth year, nor does it persist after the fortieth.	[...] in most cases, however, neither does it stop before the fortieth year, nor does it persist after the forty-fifth year.

On the basis of the available evidence, it is difficult to draw conclusions about the relationship, if any, of manuscript *M* and Do’eg’s translation activity. Yet a fuller examination and detailed collation of both Latin manuscripts (*H* and *M*) and all

⁵³ Chapters 144–145 in Bolton 2015, 318 and part of Question 21 in the Hebrew version (Barkai 1991, 257).

⁵⁴ Manuscript *M*, 2v32–3r9. In fact, “*partus primus*,” added to the Latin text in the second example above, is a reading of manuscript *M*, 3r5.

⁵⁵ See “*qui frequentius expletis triginta diebus occurrit*” (“which generally occurs every thirty days”) in Bolton 2015, 150–151 and manuscript *H* (2r3–11). The Hebrew treatise includes the reference to thirty days twice, in relation to both the length of the menstrual cycle and the cessation of menses; see Barkai 1991, 229–230 and 135–136 (French translation).

Hebrew witnesses of both *Sēfer hatôledet* and *Sēfer hā'ēm 'el g'alînûs* will help in the future to confirm the extent of the existing correspondence, the history of their complex textual transmission, and, hopefully, their Latin *Vorlage*.

2.2. Editorial Decisions

The second factor that may have played a role in the omissions and departures from the Latin text is deliberate editorial decisions. These can be classified into three categories depending on the reasons that motivated them: contents that seem to have been considered superfluous or less relevant, differences based on medical views, and cultural and religious differences.

In the first place, the Hebrew version clearly shows less interest in issues relating to prenatal care, breastfeeding, wet-nursing, neonate care, and infant care, all of them part of book I of the *Gynaecia*. At least that is what emerges from the total or partial omission of chapters devoted to matters such as *cissa* (Q4:29 and 32); names of the placenta (Q4:38–39); nursing mothers (Q6:57); treatment for dried milk (Q8:82); fall of the navel and correct unswaddling (Q10:109–110); first bath, first sitting, walking on all fours, walking, and weaning (Q10:111–113 and 115); and treatment for inflammation of the infant's throat (Q10:121 and 124).⁵⁶ These omissions, which do not seem to be grounded in medical, religious, or cultural considerations and which do not occur in other parts of the text, suggest a greater interest in gynecology and obstetrics than in prenatal care and pediatrics – a perspective apparently shared with the editors of manuscript *H*, who had already omitted procedures regarding baby bathing (Q8:91), constant baby crying (Q9:102), place where the baby should sleep (Q9: 103), and moving about the baby (Q9: 104–105).⁵⁷ The lack of regard for certain issues again becomes apparent toward the end of the treatise, in the chapter dealing with the workings of the vaginal speculum (Q30:186), from which the Hebrew version leaves out a short introduction that serves in the Latin text to connect with the prologue by alluding to the need to instruct midwives – in this case, in the correct use of the implement. In fact, this paragraph had become unnecessary once the prologue was not translated into Hebrew, and the new one did not embrace the former's concern regarding the education of midwives. Finally, *Sēfer hatôledet* omitted *pessaria* 14 and 15 and considerably shortened *pessaria* 30 and 56.⁵⁸ The expunged *pessaria* seem to be a continuation of the previous one (13), while the omitted excerpts from the other

⁵⁶ Q followed by a numeral refers to the question-and-answer couplets in the Hebrew text, while numerals after a colon stand for the number of the chapters in Bolton's edition. For their correlation, see table 1.

⁵⁷ See appendix for a more detailed account.

⁵⁸ Bolton 2015, 424–25, 431, and 440, respectively; Barkai 1991, 278, 280, and 283, respectively.

two *pessaria* consist of some procedural considerations. Other than that, there are no apparent reasons for their deletion.

In some instances, explanations referring to Greek terminology, names, and concepts were also disregarded, perhaps because they were considered superfluous or unnecessary, or possibly in an attempt to facilitate understanding, or even sympathy, on the part of a Jewish readership unfamiliar with Greek language, culture, and science. Some of these departures from the Latin text will be examined below in the discussion of editorial decisions based on cultural difference, but some instances in which strangeness seems to mix with a certain disinterest will be mentioned here. For example, all references to Muscio and Soranus were suppressed, as well as some references to medical works attributed to the latter or to other Greek authors. In particular, Q21:152 neglects to mention Soranus and Muscio; Q13:130 overlooks the reference to the treatise *Remedies*, although *Surgery* and *On Fevers* are quoted; and Q27:178 fails to quote the philosophers Apollonius and Sostratus, although it names Filoxenus, albeit in a slightly corrupted form.⁵⁹

In the second place, the Hebrew version departs from the Latin model, either by omitting passages or by modifying them, on the grounds of medical considerations. This is mainly due to the fact that the Hebrew translator did not adhere to the principles of Methodism, which sometimes he misinterpreted, as earlier scholarship has pointed out.⁶⁰ In fact, although he strained to supply Hebrew terms to render concepts such as *strictus/constrictum* (עצור), *constrictorios* (עוצרים), *laxitude* (חלקות), or *acutus* (מחודד) at a time when Hebrew medical vocabulary was in its infancy, it seems plain that he did not wholly understand the basics of Methodist medical notions.⁶¹ Consequently, he omitted or altered any chapter or excerpt where constricted or lax conditions were discussed, or where other concepts specific to Methodism were dealt with. By this token, Q4:32 on the constrictive treatment of women who suffer from *cissa*, as well as chapters 125 and 126 (in between Q10 and Q11, and at the beginning of book II) on conditions that occur through

⁵⁹ Bolton argues that, although the *Gynaecia* does not attribute the works to any named author, Soranus himself referred to *Remedies* and *Surgery* by such labels, whereas Caelius mentioned Soranus's *On fevers*. Regarding *Surgery*, the Hebrew version explains in Q20:143, regarding the treatment of hypospadias, *הוא שירורגיא* (כאשר זכרנו בספר הכרתות) ("as we mentioned in the *Book of Surgery*, that is, *širûrgiā*"). It is unclear if it was also referred to in Q29:183, on prolapse of the womb. *On fevers* is mentioned in Q12:128, in relation to the inflammation of the womb accompanied by fever; see Barkai 1991, 256, 276 and 247, respectively; and Bolton 2015, 4, 280–281, 271 n. 242, 380–381. On the naming of Filoxenus, see *הנפיקר אפילושניוש* ("Also a philosopher called *ʾafilōšēnōš*") in Barkai 1991, 271 and Bolton 2015, 378–379.

⁶⁰ Hanson and Green 1994, 1059–1060; Barkai 1998, 60.

⁶¹ For *constrictum* and its derivatives, see, e.g. Barkai 1991, 244, 248–249, 251, 259, 279; for *laxitude*, see Barkai 1991, 255; and for *acutus*, see Barkai 1991, 249. Methodism asserted that there were three bodily conditions – *status laxus*, *status strictus*, or a combination of the both of them – that engendered either acute or chronic diseases, which should be treated with laxatives or astringents, depending on the condition that caused them; see Green 1985, 24–36; Bolton 2015, 14–15.

constriction and through flux, were both wholly discarded.⁶² Other chapters that suffered from partial omissions were Q18:139 and 140, devoted to gonorrhea and lassitude of the womb, respectively, where the nearly identical assertions *est autem valitudo que per fluxum occurrit et semper chronica est* (“this condition occurs through flux and is always chronic”) and *et haec enim et per fluxum occurrit et chronica est* (“for this condition also occurs through a flux and is chronic”) were overlooked; and Q21:153, on slow and painful birthing, where a sentence regarding the relaxing treatment due to a constricted state – *haec omnia supra scripta calastica diligencia relaxari solent* (“All these things written above are wont to be relaxed by softening treatment”) – as well as a long paragraph on the strenuous ways of the ancients to induce delivery during arrested labor were likewise omitted.⁶³

In the same vein, references to the “cyclic treatment” and its phases to be applied to chronic diseases were avoided or changed. This was especially the case with the concepts of *metasyncrisis*, *accessio* (crisis), and *dialimma* (resolution). Any references to *metasyncrisis*, a phase of drastic purging after a restorative phase, were excluded from Q11:127 on menstrual retention, Q13:130 on suffocation of the womb, Q17:138 on excessive menstrual flow, Q18:139 on gonorrhea, Q27:176 on cancer in the womb, and Q29:183 on uterine prolapse.⁶⁴ In addition to this, in both Q14:132 on inflammation of the womb, and Q15:136 on the *mola*, he understands *metasyncritica* as the name of some specific medicament, not a general course of therapy.⁶⁵ Similarly, the meaning of *accessio* and *dialimma* seems to elude our translator, and while they are often omitted in some places, such as in the chapter on cancer (Q27:176), *dialemmata* is understood as an illness that causes any intake of food to be vomited or spoiled.⁶⁶ All in all, the translator seems to have retained basic Methodist therapies despite his apparent lack of allegiance to or awareness of the medical sect’s principles.⁶⁷ Notwithstanding that, it seems noteworthy to bring to mind that diet and exercise are not foreign to talmudic medicine – that is,

⁶² Bolton 2015, 168–169, 250–251; Barkai 1991, 231 and 139 (French translation), and 243 and 160 (French translation). On the latter example, see also Hanson and Green 1994, 1059.

⁶³ On Q18:139 and 140, see Bolton 2015, 308–309 and 310–311, respectively; Barkai 1991, 255, 181–82 (French translation). On Q21:153, see Bolton 2015, 328–331; Barkai 1991, 259–260, 188–189 (French translation).

⁶⁴ On Q11:127, see Bolton 2015, 264–265; Barkai 1991, 246, 181 (French translation). On Q13:130, see Bolton 2015, 277–279; Barkai 1991, 249, 169–170 (French translation). On Q17:138, see Bolton 2015, 306–309; Barkai 1991, 255, 181 (French translation). On Q18:139, see Bolton 2015, 308–309; Barkai 1991, 255, 182 (French translation). On Q27:176, see Bolton 2015, 372–377; Barkai 1991, 270–271, 203–204 (French translation). And on Q29:183, see Bolton 2015, 390–391; Barkai 1991, 274, 208 (French translation).

⁶⁵ In the first example, *metasincriticis* is read in Hebrew as מטשי נקירי טיאנקש (*metasî neqîrî fîʾanqas*). In the second one, the Hebrew reads מיטאשי נקרטיקש (*mêṭʾasî neqrîṭiqas*). Note that, in this case, manuscript *H* reads *metasin creticis* (Rose 1882, IX.38); see Bolton 2015, 284–285, 296–297; Barkai 1991, 250, 172 (French translation) and 252, 176 (French translation).

⁶⁶ Bolton 2015, 372–373; Barkai 1991, 270, 203–204 (French translation).

⁶⁷ Hanson and Green 1994, 1059–1060; Barkai 1998, 60.

to the sages' understanding of health and disease embedded in rabbinic discourse, to which we will return later.⁶⁸ As scholars have pointed out, Do'eg the Edomite was profoundly learned in Torah and the literature of the sages, as the intertextual references in his work attest.⁶⁹

So far, most editorial interventions concerning medical notions seem to be connected to the translator's (mis)understanding of Methodism. Indeed, very little is added in the Hebrew version, which hardly makes any reference to the Galeonic system of humors and qualities.⁷⁰ However, I would like to give one example where other medical views surface. It occurs in the above-mentioned chapter Q27:176 on cancer of the womb, in relation to treatment during the active phase of the disease, where the Hebrew ostensibly departs from the source.⁷¹

<i>Sēfer hatôledet</i>	<i>Gynaecia</i>
וְאִם הוּא בַחמוֹם יֵאוֹת לְהִבִּיאַ הַדְּבָרִים מִקְרִירִים [...] [...] <i>sicut februra calastice.</i>	
[...] If heat occurs, it is convenient to apply cooling things.	[...] likewise (if) inflammation (occurs), relaxing things (are applied).

Throughout the treatise, the term חמוֹם, as well as other variants (תחמוֹם, התחמוֹם) derived from the root חמ"מ and belonging to the semantic field of "heat, burning," consistently translate the Latin terms *fev/bura* "inflammation" and *fervor* "burning, heat" as "inflammation," in accordance with the indiscriminate use that the Latin makes of both to indicate such meaning.⁷² Its use in Hebrew denotes the logic followed by the translator in his painstaking attempt to supply the medical vocabulary that the holy tongue lacks. In this rare instance, however, either Do'eg the Edomite or a later scribe interpreted its meaning according to its literal sense in Hebrew and consequently departed from the original to offer a therapy based on the principle that *contraria contrariis curantur* and the qualities of the humor-al theory.⁷³

Obviously, it is not possible to ascertain on the basis of this sole piece of evidence whether this disagreement is the endeavor of the translator or of a later scribe working before any of the existing manuscript copies were made. I would nonetheless like to raise two points that, although not conclusive, are relevant to

⁶⁸ Preuss 1911, 653–687.

⁶⁹ Freudenthal 2013, 119; Freudenthal 2018, 29–30.

⁷⁰ Hanson and Green 1994, 1059–1060.

⁷¹ Barkai 1991, 270, 203 (French translation); Bolton 2015, 372–373.

⁷² Bolton 2015, 104.

⁷³ Although Michel Garel's translation into French uses *l'échauffement* in all cases except one, the coherence of the Hebrew version suggests that Do'eg was aware of the meaning and translated it accordingly into Hebrew; see Barkai 1991, 244, 246–247, 256, 268, 278, 279, 282, 283 (Hebrew) and 161, 164–167, 183, 199–200, 215, 217, 221–222, 223 (French translation). Only in Q19:142, on the flexions of the womb, *fervore/חמוֹם* has been translated into French as "inflammation": *Parfois, se produisent des abcès dans la matrice, car y était préalablement une forte inflammation.* Barkai 1991, 196, 265 (French translation and Hebrew edition, respectively).

this discussion. In the first place, Do'eg the Edomite was himself a practicing physician.⁷⁴ This fact implies that he must have been familiar with the medical theories of his time and would also account for some additions in the form of short commentaries interspersed throughout the text, such as the supplementary cause of uterine suffocation added in Q13:130 to those already featuring in the Latin – namely, “a long and difficult delivery.”⁷⁵ But, most importantly, Do'eg's translation project comprised a considerable number of theoretical and practical medical books based on Arabic Galenism. Of course, we cannot be sure of the order in which he translated the books. However, if we consider the list he provided in the introduction to his impressive program, *Sēfer hatōledet* features in twelfth place, after such significant works as Ḥunayn ibn Ishāq's *Introduction to Galen's Art of Medicine* and his translation from the very Galenic book, al-Majūsī's *Liber Pantegni*, Israeli's *Book of Urine*, and the Salernitan *Liber de sinthomatibus mulierum*, version 3, to mention just a few.⁷⁶ Regardless of which was translated first, there is no doubt of Do'eg's acquaintance with Greco-Arabic physiology.

In other places, the translator of *Sēfer hatōledet* omitted or amended those paragraphs where physiological concepts typical of Soranian/Methodist gynecology that contradict Jewish tradition or beliefs were expounded. Such disagreements enter into the realm of cultural and religious difference, my third category of editorial decisions behind the departures from the Latin source.

Two main areas of the approaches to women's health care taken by Soranus and Muscio seem problematic from the standpoint of Jewish tradition: sexual intercourse and pregnancy. Their views are problematic because they stand in sharp contrast to the commandment “be fruitful and multiply” (Genesis 1:28). Regarding the former, Q3:22 states that sexual intercourse is too draining for the body of males and females alike, so the Latin text claims that “perpetual virginity” (*perpetua virginitas*) keeps women healthy.⁷⁷ However, the Hebrew version suppresses the drastic reference to perpetuity and recommends delaying sexual activity for young women: ובהתאריך זמן הבתולות לבתולות יתאריך בריאותם (“prolonging the time of virginity for maidens will prolong their health”).⁷⁸ Perhaps one of the most disturbing concepts from a Jewish point of view is the notion, formulated in chapter 25 of the *Gynaecia*, that pregnancy may be harmful for women: *saluberrimus est enim conceptus? non quidem* (quia) *ingenti corporis labore et tormento perferatur* (“is conception, then, very beneficial for the health? Certainly not, (because) it is borne with great stress and torment of the body”). Confronted with that idea, Do'eg chose not to translate it into Hebrew.⁷⁹

⁷⁴ Freudenthal 2013, 109; Freudenthal 2018, 26 and 32.

⁷⁵ Bolton 2015, 272–273; Barkai 1991, 248.

⁷⁶ For the list of Hebrew translations, see note 2.

⁷⁷ Bolton 2015, 158–159.

⁷⁸ Barkai 1991, 230, 137 (French translation).

⁷⁹ Bolton 2015, 162–163; Barkai 1991, 230, 137 (French translation).

But not all departures from the Latin text on account of physiological concepts and their understanding in Judaism involved conflicting notions. An amendment in Q20:143 on sterility allowed the translator to introduce the idea, widely acknowledged in Judaism on account of a talmudic interpretation of Leviticus 12:1–2 (b. Niddah 31a), that women also contribute to conception through the emission of semen.⁸⁰ Thus, while the *Gynaecia* explained that one of the causes of sterility is that women in *communicatione viri semen non admittant* (“during a man’s intercourse they do not admit the semen”), the Hebrew text amended this to [...] או זכר שאינם מגרשות הזרע בהזדגגם עם זכר (“or they do not eject the semen during intercourse with man”).⁸¹

In addition to divergences regarding physiological and medical concepts, glosses and explanations of Greek names for diseases and bodily parts were not incorporated into the Hebrew version. For example, the explanation *greci etiam delphis dicta est eo quod* (“[the womb] is also called *delphys* in Greek because ...”) was not included in Q2:3, whereas the passage *cuius foris labia greci pterigomata dicuntur, latini pinacula dicta sunt, et a superiore parte descendens in medio landica dicta est* (“its outside lips are called *pterigomata* in the Greek, in Latin they are called the ‘little wings,’ and that which extends from the upper part between them is called the ‘clitoris’”) was omitted from Q2:8. It is worth noting that, in addition to alleged unfamiliarity with the foreign terminology on the part of the translator and/or his Jewish audience, lack of language skill may have precluded their transliteration or translation into Hebrew. In the omitted paragraphs, the names *delphys*, *pterigomata*, and *landica* are written in Greek script in manuscript *H*.⁸² Interestingly, the word *hystera*, which features in the commentary *greci etiam ystera appellatur* (“[the womb] is also called *hystera* in Greek”), preserved in Hebrew at the beginning of Q2:39, is spelled in Latin in the same manuscript (3v17).⁸³

Although these editorial decisions might have been prompted by the association of the *H* tradition of manuscripts with the translation of the *Gynaecia* into Hebrew, many other omissions of Greek concepts and names were not spelled in Greek but in Latin in the source text. These include, for example, *nam inde et prorregma dicitur quod prior rumpatur* (“it is also called the *prorregma*, because it is ruptured previously”) in Q4:40, *quae a grecis ysterice pnix dicta est* (“[suffocation of the womb] which is called *hysterical pnix* by the Greeks”) in Q13:130, [*De fluxu seminis mulieris*] *quem greci gonorrian dicunt* (“[On women’s flux of seed] which

⁸⁰ For a discussion on this particular notion and the impact of rabbinic discourse on the shaping of medical ideas on women, see Caballero Navas 2021, 362–365.

⁸¹ Barkai 1991, 257; Bolton 2015, 316–317.

⁸² Manuscript *H* spells the three anatomical terms in Greek: ΑΕΛΑΚΥ (*sic*), ΠΘΕΡΥΤΩΜΑΘΑ (*sic*) and ΑΝΔΥΚΑ (3v20, 30 and 31, respectively). This use of Greek is a known feature of manuscripts in the *H* tradition; see Bolton 2015, 98 (table 8).

⁸³ והיונים קראה אשתריא (“the Greeks called it *isteria*”). The Greek term has also been spelled in Hebrew as אשטריא and אשריא in the other extant manuscripts; see Barkai 1991, 229.

the Greeks call *Gonorrhoea*”) in Q18:139, [*De immoderata landica*] *quam greci las nymfin appellant*’ (“[on *landica*] which the Greeks call *las nymfin*”) in Q27:177, *De cercoso* (“on *cercosis*”), and the whole explanation of the name “satyriasis” based on Greek mythology in Q12:129.⁸⁴ This last absence points to the cultural strangeness to which I referred above and was possibly motivated by an attempt to avoid tensions resulting from cultural and/or religious differences, bearing in mind that mythology belongs to the sensitive province of belief. The following example from *pessarium* 49 evinces this concern:⁸⁵

<i>Sēfer hatōledet</i>	<i>Gynaecia</i>
נסיון טוב להוליד. ביום ו תשיעי לחדש הלבנה יודגו שניהם אך ביום ה קודם תבוא האשה במרחץ ... ותתחמם ותעשה זה שלש פעמים ונסינו ונתקיים	49. <i>Orionis conceptorium. lunam novam die Veneris et die Solis observare debebunt ambo, et die Iovis lavari debet mulier calide.</i>
Experiment good to conceive: They should have sexual intercourse on day six (Friday), on the ninth day of the new moon. But first, on day five (Thursday), the woman has to take a bath to warm up and do this three times. We tried and it worked.	49. The conception-promoting (remedy) of Orion. On the day of Venus and the day of Sol, both (woman and man) ought to observe the new moon and on the day of Jupiter the woman ought to be bathed promptly.

In fact, Do'eg's concern was justified on account of the opposition that his effort to introduce “Greek wisdom” into the Jewish cultural system through his translations encountered from his coreligionists, as Gad Freudenthal has suggested after analyzing the introduction to his translation project.⁸⁶

The editorial decisions discussed thus far correspond with two of the strategies translators from Latin into Hebrew used in order to manage ideas and practices irrelevant to or incompatible with Jewish customs and beliefs – namely, partial alteration and total deletion. A third strategy consists of the retention of the whole and, thus, deliberately ignores the potential difficulties.⁸⁷ More often than not, Jewish translators chose to disregard the difficulties that certain contents might pose for a Jewish readership by rendering into Hebrew, without warning or explanation, ingredients and medicaments that may seem striking from a cultural point of view. In my experience, this is a common feature of Hebrew texts on women's health care, numerous examples of which are by no means exceptional

⁸⁴ On Q13:130, see Bolton 2015, 272–273; Barkai 1991, 248. On Q18:139, see Bolton 2015, 308–309; Barkai 1991, 255. On Q27:177, *landica* has been misspelled in Hebrew as לינטריקא (*linṭerīq'a*) and לינטידיקא (*linṭīdīq'a*) in different manuscripts, although it is not possible hitherto to know whether the misunderstanding originated with the translator or was introduced by later copyists. The commentary “this disease is very bad and ugly” is possibly due to the former, who, however, chose not to include the moral comment *turpitudinis sintoma est grandis* (“[it] is a symptom of indecency”); see Barkai 1991, 270; Bolton 2015, 376–377. And, on Q12:129, see Bolton 2015, 378–379 and 270–271, respectively; Barkai 1991, 271 and 247, respectively.

⁸⁵ Bolton 2015, 437; Barkai 1991, 283.

⁸⁶ Freudenthal 2013, 114–116. See also Freudenthal, McVaugh and Mesler 2020, 233.

⁸⁷ For these strategies, see Ziegler 1997, 94–102; Cohen-Hanegbi 2013, 130–140.

within the Hebrew medical corpus.⁸⁸ This was apparently one of Do'eg the Edomite's translation choices, as he did not shy away from mentioning forbidden foodstuffs in all three of the gynecological tracts he translated.⁸⁹ In its medical recipes, *Sēfer hatôledet* recommends pig meat and fat, the latter being particularly advised in the preparation of *pessaria*, as well as bear fat and the brains, womb, and stomach of hares, from which different medicaments were prepared.⁹⁰

As some scholars have pointed out, an obvious reason for this lack of censorship regarding the translation into Hebrew of forbidden ingredients to be used in the course of a treatment is that Jewish physicians – the implicit readership of Hebrew medical books – also provided medical attention to Christian patients, who did not share the dietary constraints and probably expected to be offered such therapies.⁹¹ Nonetheless, it is also possible that, regarded as part of the healing procedure, these ingredients were tolerated by some Jews on the grounds that the prohibition would not apply in these cases, given the motive. Interestingly, in the context of a discussion about pregnant women craving forbidden foodstuffs, the Babylonian Talmud (b. Yoma 82a:9) stipulates that “there is no *halakhah* that stands in the way of saving a life except for the prohibitions against idol worship, and forbidden sexual relationships, and bloodshed.” Evidence indicates that some medieval Jews were prepared to disregard dietary laws whenever health was at risk and occasionally overcame their scruples to such an extent that they visited the tombs of Christian saints and Christian holy places, as well as recited Christian prayers in order to recover their health.⁹² What is striking about Do'eg's decision to render these treatments into Hebrew is that he claims in the prologue to his translation project that his aim is to provide Jewish physicians with medical education adequate enough to prevent Jewish patients from visiting Christian doctors who could give them treatments contrary to Jewish law.

I have seen the holy seed [i. e. the Jews] lay siege to the doors of the gentile sages on account of their illnesses, and the illnesses of their sons and daughters. They receive from the

⁸⁸ For example, the thirteenth century Hebrew compilation on women's health care, *Sēfer 'ahābat nāšim* (*The Book of Women's Love*), recommends putting a piece of unsalted pig's liver on a scab to cure it, or using the dung of a white female pig to prepare a pessary that will stop a vaginal haemorrhage; see Caballero Navas 2004, 124 and 168, respectively. Likewise, the fifteenth-century *Šār hanāšim* (*Chapter on Women*) recommends pig fat to indistinctly treat conditions of the breast and postpartum pangs, and pig testicles to prevent breasts from growing too much; see Caballero Navas 2003, 150–151, and 155, respectively.

⁸⁹ See, e. g. the recommendation to apply pig fat mixed with other ingredients for ulcers in the womb in *Sēfer hā'ēm*, and the advice to use the stomach of a fox for a pessary against uterine suffocation in *Sēfer hasēter*; Barkai 1998, 170 (153 Hebrew) and 186 (182 Hebrew), respectively.

⁹⁰ Barkai 1991, 99–104, 240, 242, 254, 257, 277, 278, 280, 282–283.

⁹¹ Ziegler 1997, 102; see also Freudenthal 2013, 110–111, who points to the need of Jewish physicians to pass an examination in the vernacular (in order to obtain a medical license).

⁹² On evidence that Jews disregarded dietary laws under such circumstances, see Caballero Navas 2008, 152–153; Ziegler 1997, 100–101. On the use of Christian prayers and holy places, see Shatzmiller 1994, 120–23; Shoham-Steiner 2006, 375–376.

[gentiles'] hands every remedy, although they do not differentiate between the pure and the impure; into their compound medicines they mix libation wine with pure wine, unclean meat and milk and blood. None escapes the prohibited nor the abhorrent. For this reason I decided to translate ...⁹³

In view of Do'eg's choices regarding the translation of forbidden food, I believe that the claim he made in order to justify his translation project – to avoid that the Jews were at risk of (in)advertently consuming forbidden food – should be understood as a *topos* – that is, as a rhetorical argument whose aim was to legitimize his endeavor by resorting to Jewish tradition, and to persuade his potential audience that Greco-Arabic medicine was compatible with the fulfillment of Jewish precepts. To this end, he also eliminated from *Sēfer hatôledet* some notions that could be problematic from the perspective of Judaism, as has already been discussed, and incorporated some elements linked to traditional Jewish learning, which resulted in the apparent Judaization of the book.

3. Tradition as Source of Authority and Legitimacy

As scholarship has often pointed out, the translator of *Sēfer hatôledet* introduced substantive changes and additions compared to the Latin version, which altered the product significantly, in contrast to the rather literal rendition of both *Sēfer hasēter* and *Sēfer hā'ēm*. He provided the translation with an introduction, which did not exist in the original, and presented the treatise in the form of a dialogue between two biblical characters from the patriarchal narratives. He also resorted liberally to biblical and talmudic quotations and expressions. These discernible editorial interventions have prompted scholars during the last few decades to ask why Do'eg decided to Judaize only one of the three gynecological texts he translated.

In answer to this question, Freudenthal has recently claimed that the frame story of the book was put there not by Do'eg but by a later editor, although, to my knowledge, no further information about the results of his research has been disclosed.⁹⁴ While Freudenthal's findings may prove to be of great relevance to the history of medieval Hebrew medicine and gynecology, his claim has not come entirely as a surprise. Firstly, Barkai already weighed the idea in the 1990s, although he rejected it after comparing a copy of each of the three gynecological texts from Do'eg's plume preserved together in fifteenth century Spanish manuscript.⁹⁵ His analysis made it possible to confirm the common authorship of the three texts, but the state of research at the time did not allow him to identify a different hand

⁹³ Steinschneider 1888, 6. For the English translation, I have used both Barkai 1998, 21 and Freudenthal 2013, 109.

⁹⁴ Freudenthal 2018, 46.

⁹⁵ Barkai 1998, 31.

in *Sēfer hatōledet*. Secondly, this would not be the first time that one of Do'eg's translations was rewritten and edited by a later hand. *Sēfer hasēter* was (partially?) edited during the second half of the thirteenth century by an unknown Provençal author, whom the author of *Sēfer hayōšer* often calls "my brother Jacob," and who renamed the edited version as *Šē'ar yāšūb* (*A Remnant Shall Return*). This single extant copy preserves the only portions from *De ornatu mulierum* known to date, together with some fragments from the *Liber de sinthomatibus mulierum*, version 3 which the only manuscript copy of *Sēfer hasēter* known before its identification does not.⁹⁶

In my view, the publication of Freudenthal's study may prompt us to revise previous analysis and open new research paths. Nevertheless, regardless of whether the prologue and frame story were authored by Do'eg the Edomite or someone else, I still think that the Jewish garb of the book operates as a strategy to legitimize Jewish (male) involvement in Greco-Latin gynecology in several ways, which involve not only rabbinic discourse but also an apologetic approach that connects the origin of medicine to the Jews.⁹⁷ I shall not be able to deal with these issues at length in the present contribution but can only comment on a few elements relevant to my contention. I hope to make known the results of my ongoing research in a future publication.

An important element of the book's legitimizing strategy is the continuous references to the Bible, which is brought into play in two ways: recourse to biblical personae and interpolation of numerous biblical verses, whose meaning is often emphasized or used figuratively in a new context. Both features are already found in the prologue to the translation, whose very two opening lines connect the treatise directly to Jewish tradition by means of an allusion to the creation of man from dust (Genesis 2:7) and a quotation from Genesis 6:2 – "the sons of God saw that they [the daughters of men] were fair" – that evokes in the mind of the learned Jewish reader that "daughters were born to them" "who bore children to them."⁹⁸ Immediately afterward, the main characters of the plot are introduced – the patriarch Jacob and his daughter Dinah – and it is their literary voices perform the dialogue throughout *Sēfer hatōledet*.

The richness of the prologue in terms of biblical quotations, literal and allegorical meanings, discursive elements, and themes is enormous. Nonetheless, three motifs play an important role in justifying the production of a gynecological text in Hebrew, and in legitimizing Jewish appropriation and accommodation of gynecological knowledge, as well as medical male authority over women. These are: female bodies as weak and prone to disease, women's modesty and shame, and the role of the father as an expert on women's conditions.

⁹⁶ See note 23.

⁹⁷ Caballero Navas, 2021, 363.

⁹⁸ Barkai 1991, 227. See also Genesis 6:1, 4. All biblical references in English are from the NRSV.

The role of Jacob's expertise on women's conditions is twofold. It stages male appropriation of female agency in health care, while serving to connect the medical knowledge in the book to the patriarchs. Dinah is the daughter of Jacob and Leah, but it is her father and not her mother who passes down his gynecological and obstetrical knowledge to her. Dinah – the silent, tragic heroine of a biblical story of rape and violence (Genesis 34) who embodies all women's afflictions – serves the purpose of legitimizing the gendered division of medical attention. Jacob holds the theoretical knowledge, whereas Dinah administers the cures according to her father's teachings and instructions. This Dinah is a product of both rabbinic and medical male-centered discourses, a literary fiction that personifies the expectations of rabbis and physicians regarding the role of women in this sphere of knowledge and practice.⁹⁹ Nonetheless, although Dinah is apparently ignorant, she is acknowledged expertise and authority in this domain by medieval Jewish cultures. At any rate, this is what some medieval translators and copyists seemed to think, as they transformed her into an author by attributing to her, at least symbolically, a text or a remedy. For instance, the anonymous author of a short Judeo-Arabic treatise produced from an Arabic version of Muscio's *Pessaria* entitled it *Sēfer dīnā lēkōl 'inyān hāreḥem wēḥālēyehāh* (*Dinah's Book on All that Concerns the Womb and Its Diseases*), and someone else noted in a fifteenth century manuscript the sentence "Dinah wrote in a book called *Trotula*."¹⁰⁰

When Dinah appears before her father to ask for his help, she reminds him that "there is no closer *go'el* [redeemer] for a daughter than her father,"¹⁰¹ evoking the many roles played by that position in the Bible and in rabbinic literature, such as next of kin, one who performs any duty a man cannot do by himself, avenger of blood, or redeemer from slavery. In conformity with the male-centered narrative, therefore, she acknowledges her dependency upon him, as well as her reliance. She is not ashamed to reveal to him what women keep a secret out of modesty. She "went out" to weep before the feet of her father, as she "went out to visit the women of the region" (Genesis 34:1), and, after being redeemed by him, she "went out" again to marry Job, and conceive and give birth to sons and daughters from him. This paraphrase of Genesis Rabbah 57:4 contributes further to link *Sēfer ha-tōledet* to rabbinic literature.¹⁰²

Although Dinah is prepared to disclose her ailments to her father, according to the text it is the *מילדת* (*mēyaledet*), or midwife, who is entrusted with exploring

⁹⁹ Caballero Navas 2019, 709–710.

¹⁰⁰ On the former, see Barkai 1998, 50–53, 97–108 (edition and English translation, respectively). On the latter, see Oxford University, Bodleian Library, Ms. 2133, fol. 184r; see Barkai 1991, 128; Barkai 1998, 63; Steinschneider 1893, 719.

¹⁰¹ Barkai 1991, 227.

¹⁰² Barkai 1991, 84. Apart from Genesis Rabbah, other rabbinic texts and ancient authors also marry her to Job; see b. Baba Batra 16b; Testament of Job 1.5–6; Pseudo-Philo, *Liber Antiquitatum Biblicarum* 8:7–8; and the Targum translation of Job 2:9.

and touching the most intimate parts of the bodies of female patients. Two different traditions conflate here and in other contemporary Latin-into-Hebrew translations: the rabbinic notion of modesty, which excludes the possibility of men examining women's bodies, and the rhetoric of shame and concealment present in some early Latin texts which, according to Green, has a twofold aim: to restrict male access to female bodies and to ensure that knowledge and treatment of women's conditions remained "within a community of women."¹⁰³ In my view, it also served a third twofold purpose – namely, to draw the boundaries of legitimate practice and to establish a gendered division of labor regarding the provision of health care. This interest of (male) medical authors and practitioners conveniently fit traditional rabbinic interest in establishing themselves as experts on women's bodies.¹⁰⁴

In my view, the attempt to connect *Sēfer hatôledet* to the patriarchs foreshadows the approach shared by some later translators and intellectuals whose works convey the notion that medicine is not alien to Judaism; it also implicitly parallels the apologetic approach preserved in some of the extant manuscripts of *Sēfer 'Asaf* or *Sēfer harēfû'ôt*.¹⁰⁵ This approach is based on an haggadic tradition about the transmission of medical knowledge from God to human beings, by means of which the author endeavors to prove that the origin of medicine can be traced to the patriarchs. There is no evidence that Do'eg or the alleged later editor knew that *Sēfer rēfû'ôt* existed, although they could have been aware of it, or even had access to it, as the text was circulating in Provence at the turn of twelfth century, when David Qimḥi (1160–1235) mentioned it in his *Commentary to Hosea*.¹⁰⁶

Finally, concerning the structure of the treatise, Muscio, as already mentioned, organized part of his translation-adaptation of the *Gynaecia* in a basic question-and-answer format, with the aim of helping the reader understand and memorize the content of the text. This is consistent with the declared goal of his work, which was to train midwives.¹⁰⁷ In the Hebrew version, the aim of training midwives has disappeared. However, either Do'eg or a later editor decided to preserve the format and even extend the question-and-answer structure to book II of the *Gynaecia*, which was written in noncatechetic form by Muscio. This is also consistent with the style used in ancient and rabbinic writings, in particular in the frame of rabbinic dialectics, due to its great value in teaching. According to Alexander Samely, question-answer units are extremely common in rabbinic sources. In his words, "The question-answer unit thus contributes significantly to the presenta-

¹⁰³ On the first, see Fonrobert 2000, 150–151. On the second, see Green 2000a, 8–11.

¹⁰⁴ Fonrobert 2006, 150. On the impact of rabbinic discourse on the early stages of the Hebrew corpus of gynecology, see Caballero Navas 2021, 363–365.

¹⁰⁵ See also Alfonso 2008, 43–46.

¹⁰⁶ See note 21.

¹⁰⁷ Bolton 2015, 48–67.

tion of these texts as consisting of self-contained thematic parcels, as well as creating a virtual interaction with the reader.”¹⁰⁸

To conclude, I would like to emphasize that *Sēfer hatôledet* constitutes not only an attempt to legitimize (male) Jewish involvement in Greco-Latin gynecology, but also to appropriate and transform it into a distinct Jewish product. According to Barkai, the translator may have realized that the Latin treatise was a normative pillar of the Latin medical corpus of the time. He was not wrong, because we know today that Muscio’s *Gynaecia* was one of the core texts of the Cassinese corpus. Furthermore, the pains that Do’eg, and possibly a later editor, took to appropriate its knowledge of women’s medicine and give it a Jewish appearance suggest that he (or they) possibly wished to establish *Sēfer hatôledet* as the foundation of Jewish gynecology. By “Jewish gynecology” I mean both the Hebrew corpus of gynecological texts and the involvement of Jewish male physicians in gynecology, which entailed their transformation into experts on women’s bodies.

Obviously, Do’eg the Edomite could not have known that this medical tradition would be soon superseded by the *Trotula* texts and Arabic Galenism. However, by the late Middle Ages, a change would occur in the way physicians relate to gynecological literature. They had been transmitters of the medical traditions of antiquity with little connection to practice, but they began to show an interest that would gradually transform gynecology and obstetrics into a male medical specialty.¹⁰⁹ In this context, *Sēfer hatôledet* would again be copied and put into circulation not only on account of its valuable chapters on the difficulties of childbirth, of great interest for contemporary obstetric surgery, but also because it presented the medical practice of women as subordinate to the practice of male physicians.¹¹⁰

There are still many things to be learned from *Sēfer hatôledet* and from the role of Do’eg the Edomite in the foundation of the Hebrew corpus of gynecology. Thus far, both of them have taught us a lot about translation and cultural transfer.

Appendix

Summary of the main correspondences between *Sēfer hatôledet* and Manuscript *H*, in contrast to manuscripts *B* and *L* (according to Bolton 2015). Numbers in brackets in the middle column refer to page(s) in Barkai’s edition. Folio(s) and lines are indicated on the right hand column.

¹⁰⁸ Samely 2017, 172.

¹⁰⁹ Green 2008.

¹¹⁰ See note 32 regarding the provenance and late date of the extant manuscripts.

<i>Gynaecia</i>	<i>Sēfer haṭôledet</i>	<i>Gynaecia</i> , Manuscript <i>H</i>
VII <i>Quali positione figurata est matrix?</i>	תשאל דינה אי זה הוא תבנית האם ותמונתה [Q1] (228)	It appears immediately following the prologue: <i>Quali positione figurata est matrix</i> (3r18)
In what form is the womb shaped?	What is the structure and appearance of the womb? ¹¹¹	
I [Prologue] [...] <i>in quot vel quas partes dividere oportet mulierum traditionem?</i> [...] <i>Explicit prologus.</i>	תשאל דינה לכמה חלקים נחלק מועשה הנשים [Q2] (228)	It has been removed from the prologue and placed after the question on the shape of the womb: <i>in quot vel quas partes dividere oportet universam mulierum?</i> (3v1–6).
Into what number, and what categories, ought an account of women be divided? [...] Here ends the prologue.	Into how many parts is divided the account of women? ¹¹²	This paragraph is missing (3v25)
VI [...] <i>quibus rebus ad se omnia continentur ut inereant matricis tunice? tenuissimis membranis et nervis.</i>	[Q2] This paragraph is missing. (229)	
[...] By what things are they all interconnected so that the layers of the womb attach to one another? By very fine membranes and sinews.		Missing (3v36)
XI <i>Qua magnitudine est orificium cum est conclusum?</i>	[Q2] Missing. (229)	
How big is the orifice of the womb when it is closed?		
XV <i>Quando incipit prima purgatio occurrere?</i>	[Q3] See discussion of this example in the essay.	See discussion of this example in the essay.
XXI <i>Quomodo probamus aliquas secundum naturam non purgare? ex eo quod ad integrum sanae sunt et nullam molestiam corporis sentiunt.</i>	יאותן אשר לא תריקן הרקק שלימה כפי תלדתם יחול עליהם הכאב והצער בשעת הוולדת או כמזך אליהו. (230)	[...] <i>ex eo quod ad impetum sanguinis molestias sustineant.</i> (4r30–31)
How do we recognize that certain women do not naturally purge? By the fact that they are totally healthy and suffer no affliction of the body.	Those who do not purge completely according to their nature, will feel pain and affliction at the time of menstruation, or in the nearby days.	[...] By the fact that at the onset of the blood, they suffer afflictions.

<i>[purgatio] eas senescere facit et insuper, vacuo partu, forte periclitari. Et annus quae purgantur sanae sunt. (4v4–5)</i>	[Q3] להביא הזקנה ומסכנת. הזקנות המריקות דם הם דברי אור	<i>[purgatio] eas senescere facit et insuper, vacuo partu, forte periclitari. Et annus quae purgantur sanae sunt. (4v4–5)</i>
[menstruation] makes them become old and endangers them during childbirth; once they do not menstruate anymore they are healthy.	Purgation contributes to health, although it brings rapidly old age and endangers. Old women who menstruate are healthy.	[menstruation] makes them become old and endangers them during childbirth; old women who menstruate are healthy.
LIII [...] <i>alie autem mulieri quae retro eam continet iuvere ut cum lenteolo anum eius conteneat, ne co-natu eius foris excludatur.</i>	ידיה לסמוך לדיה בסדין [...] והעומדות אחריה יאות לסמוך ידיה בסדין (234) כמו לאחור.	[...] <i>alie [autem] mulieres qua retro eam continet iuvere ut cum lenteolo manus eius foris excludatur. (6r15–16)</i>
[...] (The <i>obstetrix</i>) ought to instruct the other woman, however, who supports (the woman giving birth) from behind, to hold the anus back with a linen cloth, lest it be forced outside due to her exertion.	[...] and the women standing behind her should hold her <u>hands</u> backwards with a linen cloth.	The other women who support her from behind should hold outwards her <u>hand</u> with a linen cloth.
XCI <i>Propter quam causam post lavacrum infantis plantis retentis caput iusum suspenditur?</i> For what reason, after the bathing of the infant, is it to be suspended head downwards with the feet held fast?	[Q8] Chapter missing (240)	Missing (8v6)
CII <i>Quid faciemus si post lac biberit frequencius plo- ret?</i> (What are we to do if it should cry constantly after it has taken suck?)	[Q9] Chapters missing (242)	Missing (9r16)
CIII <i>Cum infans obdormierit ubi ponendus est?</i> (When the infant should sleep, where is it to be placed?)		

¹¹¹ Change in order regarding the oldest Latin manuscripts. In Hebrew, this is the very first question. See Barkai 1991, 228 and Bolton 2015, 144–45, and 138–39, respectively.

¹¹² The Latin prologue was not translated into Hebrew, but the question is placed after Q1.

<i>Gynaecia</i>	<i>Sēfer hatôledet</i>	<i>Gynaecia, Manuscript H</i>
CLIII <i>Quando gestandus est infans?</i> (When ought the infant be moved about?)	[Q9] Chapters missing (242)	Missing (9r16)
CV <i>Quomodo et qua re gestandus est infans?</i> (How, and in what, is the infant to be moved about?)		
CXXIII <i>Ad tussiculam eorum quid damus?</i>	[Q10] See discussion of this example in the essay.	See discussion of this example in the essay.
CXXXV <i>De dolore matricis</i>	[Q14] Missing (251)	Missing (13r35)
On pain of the womb		
CXXXVI <i>De mola matricis</i> [...] <i>illa etiam timiamata que antiqui Subponebant [...] haec omnia probamus, quia plurimum prodesset possint.</i>	אינו ישר בעינינו כי יזיק ולא יועיל. (251 and 253) [Q15] מולא [...] ומה שריו עושים הקדמונים [...] כל זה	<i>De mola</i> [...] <i>illa autem thymiamata que antiqui subponebant [...] haec omnia reprobamus siquidem plurimum sint contraria et nihil prodesset possint.</i> (13v34–35)
On <i>mole</i> of the womb. [...] Also those fumigants which the ancients used to apply below [...] all these things we recommend, since, for the most part, they can be useful.	How shall we treat the swelling of the womb called <i>mola</i> ? [...] regarding what the ancients use to do [...] all this is not correct in our eyes, since it will do harm and will not be useful.	On <i>mola</i> [...] But those fumigants which the ancients used to apply below [...] all these things we reject, since, for the most part, they are harmful and cannot be useful.
CLIII <i>Si autem contra naturam positus inventus fuerit infans, quid obsestrix facere debet?</i>	[Q22] See discussion of this example in the essay.	See discussion of this example in the essay.
CLXVIII <i>De embriulcia. si qui nullo modo manibus adduci possunt et aut magnitudine corporis sui resistunt aut morte aut ingenti strictura artati sunt, et in totum evelli non possunt, quid facere oportet? embriulciam adhiberi, vel embriotomiam. si quidem etiam pecus mortuum est, debemus misere mulieri parturienti subvenire, ante tamen omnibus predictis periculis, maxime cum sint periculosa sintomata quae nos terrere possunt ut periculum predicimus,</i>	בדים וימנע זה או גודל גופו. או שהם מתים. או שהם במצור ובמצוק צר ואין להם תיקון. או שכל כחני ומכל כלים העושים אל הענין הזה ונעוור לענין. ונשאל דינה ומה הם המקרים ואיך נעוור אליה. השיב אביה. המקרים הם מיני הקדחת הדודת ואז הסביל כל גופה חמום רב. ¹¹³ או יולד בה החולי הנקרא	<i>Sint qui nullo modo manibus adduci possunt et aut magnitudine corporis sui resistunt aut morte aut ingenti strictura artati sunt, ut in totum evelli non possint, quid facere oportet. Embryulciam adhibere vel embriotomiam. si quidem etiam pecus emortuum est. et debemus vel miserae parturienti subvenire maxime cum si et periculosa iuxta eam symptomata inveniantur.</i> (19v5) <i>Que sunt enim periculosa,</i>

*si febres sint maxime acutae nervositasque omnis
paciatur talisque fervor precedat ut et cangræna ibi
efficiatur et plurimum sudet, pulsus etiam minutus
sit aut in totum non appareat.*

קקרינא ותיע לרוב והדפס מוצע כאן או אפס כלל או
אפיסת הדעת יגיע עליה.¹¹⁴ (362)

*simpptomata, qua nos terre possunt ut peri-
culum predicamus, si febres sint vel maxime
acute nervositasque omnis paciatur talisque
fervor praecedat ut et cancrena ibi efficiatur
plurimum sudet, pulsus etiam minutus sit aut
in totum non appareat deliratio subsequatur.*
(19v1–9)

If (there are infants) who can in no manner be drawn out by the hands, and (those who) resist (being drawn out) either through the size of their body or through death, or are wedged in by a huge compression, so that they cannot be pulled out at all, what is it fitting to do? (It is fitting) to employ the extraction of the foetus, or the embryotomy. Even if the foetus is already dead we ought to assist the wretched woman giving birth, with all the dangers, however mentioned beforehand, especially since there are dangerous symptoms which can (so) terrify us that we predict peril, (namely) if fevers are especially acute and the entire nervous system suffers and inflammation of such a sort advances so that both gangrene is caused thereupon, and (the woman) perspires profusely, also (if) the pulse is diminished or not perceptible at all.

[...] And there are other [fetuses] for which there is not enough strength to deliver them with the hands and are withheld, also because the size of their bodies, or because they are dead or in such distress or pressure that it is impossible to remove them. It is therefore necessary to help her with *'embri' ūlṣā* or with *'embri' fōmi' a*, which are instruments made for this purpose, and to help with all our strength and with everything possible if other symptoms affect her.

Dinah asked: what are these symptoms and how shall we treat her? Her father answered: the symptoms are various acute fevers, and then her whole body will suffer a great inflammation; or she will suffer the disease called gangrene, and shall sweat profusely and her pulse will be very weak or will have no pulse at all, or will lost her mind.

What are these dangerous symptoms? Those that can terrify us that we predict peril, (namely) if fevers are especially acute and the entire nervous system suffers and inflammation of such a sort advances so that both gangrene is caused thereupon, and (the woman) perspires profusely, also (if) the pulse is diminished or not perceptible at all, madness will ensue.

¹¹³ I follow here the reading of both Vatican manuscripts.

¹¹⁴ Chapter 186, on the extraction on the fetus, has been drafted as two questions in manuscript *H*. This circumstance seems to have been used by the Hebrew translator or a later editor to make a more explicit separation. Thus, the first part begins at the end of Q22, while the second opens Q23. Moreover, it ends with a symptom (אפיסת הדעת) which only appears in the *H* tradition of manuscripts.

Gynaecia	Sēfer haṭōledet	Gynaecia, Manuscript H
CLXXII [...] <i>emorroidas raro quidem in mulieribus inveniuntur, frequentius tamen in collo et in orificio nasci solent [...] ipsasque emorroidas pulverem quot accipit id rizacum de pulvere quae fit ex coria mali granati et gallarum et sfragide tangimus, vel agaciam et ipoquistida in vino solventes inlinimus.</i>	תשאל דינה [מן] התחתנית הנולדת באם הנקראת אמרידיש איך נעזר. השיב אביה. פנמים מעטים יולדו בחיך אך תמיד נולדו בצואר האם או בפיה [...] ונשים עליהם אבק המקבל שרף עץ פרונלשל וקליפת רמון. גטלש. אכאס'א. אפוקיטסידוש [...] ¹¹⁵ (272)	XXVIII [...] <i>emorroides raro quidem in muliebri sinu inveniuntur, frequentius tamen in collo matricis et in orificio nasci solent [...] ipsasque emorroidas pulvere quot accipit id gallas [...] (23r18–21, 23v6–7)</i>
Rarely, in fact, do we find haemorrhoids among women (in their wombs); more frequently, however, they are wont to be produced in the neck (of the womb) and in the orifice (of the womb). [...] and we anoint the haemorrhoids themselves with a powder which is made from the rinds of pomegranate and oak galls, and we anoint (them) with Lemnian earth, or dissolving acacia and hypocist in wine we smear (the haemorrhoids with this).	[...] Very rarely are [hemorrhoids] found in the womb; they only grow in the neck and in the mouth of the womb [...] we will apply on them the powder obtained from resin of the wood of <i>prunelas</i> and pomegranate rind, oak galls, acacia and hypocists.	Rarely, in fact, do we find hemorrhoids in the womb of women; more frequently, however, they are wont to be produced in neck and in the orifice of the womb [...] and we anoint the hemorrhoids themselves with a powder which is made of <i>prunella</i> gum, rinds of pomegranate, oak galls [...].
Missing	Missing	<i>Fetus-in-utero</i> illustrations, 17r–19v
	<i>Pessaria. 15 and 16 missing (276–284)</i>	<i>Pessaria. 60, 25v–28r</i>

¹¹⁵ Both manuscript H and the Hebrew version specifically mention the womb. Also in both cases, the treatment differs slightly and, most importantly, include the ingredient *prunella*.

Bibliography

- Alfonso, Esperanza. 2008. *Islamic Culture through Jewish Eyes: Al-Andalus from the Tenth to Twelfth Century*. New York: Routledge.
- Barkai, Ron, trans. 1989. "A Medieval Hebrew Treatise on Obstetrics." *Medical History* 33: 96–119.
- Barkai, Ron, ed. 1991. *Les infortunes de Dinah, ou la gynécologie juive au Moyen Âge*. Paris: Cerf.
- Barkai, Ron, ed. and trans. 1998. *A History of Jewish Gynaecological Texts in the Middle Ages*. Leiden: Brill.
- Bolton, Lesley, ed. and trans. 2015. "An Edition, Translation and Commentary of Mustio's Gynaecia." Ph.D. diss., University of Calgary.
- Bos, Gerrit, ed. and trans. 1997. *Ibn al-Jazzār on Sexual Diseases and Their Treatment: A Critical Edition of Zād al-musāfir wa-qūt al-ḥādir (Provisions for the Traveller and Nourishment for the Sedentary)*. London: Kegan Paul.
- Bos, Gerrit. 2016. *Novel Medical and General Hebrew Terminology: Hippocrates' Aphorisms in the Hebrew Tradition*. Oxford: Oxford University Press.
- Bouras-Vallianatos, Petros, and Barbara Zipser, eds. 2019. *Brill's Companion to the Reception of Galen*. Leiden: Brill.
- Caballero Navas, Carmen, ed. and trans. 2003. "Un capítulo de mujeres. Transmisión y recepción de nociones sobre salud femenina en la producción textual hebrea durante la Edad Medieval." *Miscelánea de estudios Árabes y Hebraicos. Sección Hebreo* 52: 135–162.
- Caballero Navas, Carmen, ed. and trans. 2004. *The Book of Women's Love and Jewish Medieval Medical Literature on Women: Sefer ahavat nashim*. London: Kegan Paul.
- Caballero Navas, Carmen, ed. and trans. 2006a. "Algunos 'secretos de mujeres' revelados. El Šē'ar yašub y la recepción y transmisión del Trotula en hebreo." *Miscelánea de estudios Árabes y Hebraicos. Sección Hebreo* 55: 381–425.
- Caballero Navas, Carmen. 2006b. "Secrets of Women: Naming Sexual Difference in Medieval Hebrew Medical Literature." *Nashim, A Journal of Jewish Women's Studies and Gender Issues* 12: 39–56.
- Caballero Navas, Carmen. 2008. "The Care of Women's Health: An Experience Shared by Medieval Jewish and Christian Women." *Journal of Medieval History* 34,2: 146–163.
- Caballero Navas, Carmen. 2009. "Maimonides' Contribution to Women's Health Care and His Influence on the Hebrew Gynaecological Corpus." In *Traditions of Maimonideanism*. Edited by Carlos Fraenkel. Leiden: Brill. Pages 33–50.
- Caballero Navas, Carmen. 2011. "Medicine among Medieval Jews: The Science, the Art, and the Practice." In *Science in Medieval Jewish Cultures*. Edited by Gad Freudenthal. Cambridge: Cambridge University Press. Pages 320–342.
- Caballero Navas, Carmen. 2019. "Virtuous and Wise: Apprehending Female Medical Practice from Hebrew Texts on Women's Health Care." *Social History of Medicine* 32,4: 691–711.
- Caballero Navas, Carmen. 2021. "The Genesis of Medieval Hebrew Gynaecology: A Preliminary Assessment." In *Defining Jewish Medicine: Transfer of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 349–373.
- Cadden, Joan. 1995. *Meanings of Sex Difference in the Middle Ages: Medicine, Science and Culture*. Cambridge: Cambridge University Press, 1993. (Repr.)

- Cohen-Hanegbi, Naama. 2013. "Transmitting Medicine across Religions: Jean of Avignon's Hebrew Translation of the *Lilium medicine*." In *Latin-into-Hebrew: Texts and Studies*. 2 vols. Edited by Ressiane Fontaine and Gad Freudenthal. Leiden: Brill. Pages 1: 121–159.
- Fonrobert, Charlotte E. 2000. *Menstrual Purity: Rabbinic and Christian Reconstructions of Biblical Gender*. Stanford, CA: Stanford University Press.
- Freudenthal, Gad. 1995. "Science in the Medieval Jewish Culture of Southern France." *History of Science* 33: 23–58. Repr. in Gad Freudenthal, *Science in the Medieval Hebrew and Arabic Traditions*. Aldershot: Ashgate Variorum, 2005.
- Freudenthal, Gad. 2011. "Arabic into Hebrew: The Emergence of the Translation Movement in Twelfth-Century Provence and Jewish-Christian Polemic." In *Border Crossings: Interreligious Interaction and the Exchange of Ideas in the Islamic Middle Ages*. Edited by David Freidenreich and Miriam Goldstein. Philadelphia: University of Pennsylvania Press. Pages 124–143.
- Freudenthal, Gad. 2013. "The Father of the Latin-into-Hebrew Translations: 'Do'eg the Edomite,' the Twelfth Century Repentant Convert." In *Latin-into-Hebrew: Texts and Studies*. 2 vols. Edited by Ressiane Fontaine and Gad Freudenthal. Leiden: Brill. Pages 1: 105–120.
- Freudenthal, Gad. 2018. "The Father of the Latin-into-Hebrew Translators of the Middle Ages: Do'eg the Edomite and His 24 Translations (1197–1199)." In *A Tribute to Hannah: Jubilee Book in Honor of Hannah Kasher*. Edited by Avi Elqayam and Ariel Malachi. Tel Aviv: Idra. Pages 23–53. (Hebrew)
- Freudenthal, Gad, Michael McVaugh, and Kately Mesler. 2020. "Twelfth-Century Latin Medicine in Hebrew Garb: Doeg the Edomite as a Cultural Intermediary." *Medieval Encounters* 26,3: 226–284.
- Glaze, Florence Eliza. 1999. "The Perforated Wall: The Ownership and Circulation of Medical Books in Medieval Europe, ca. 800–1200." Ph.D. diss., Duke University.
- Green, Monica H. 1985. "The Transmission of Ancient Theories of Female Physiology and Disease through the Early Middle Ages." Ph.D. diss., Princeton University.
- Green, Monica H. 1996a. "The 'Development' of the *Trotula*." *Revue d'Histoire des Textes* 26: 119–203.
- Green, Monica H. 1996b. "A Handlist of the Latin and Vernacular Manuscripts of the So-Called *Trotula* Texts. Part I: The Latin Manuscripts." *Scriptorium* 50: 137–175.
- Green, Monica H. 2000a. "From 'Diseases of Women' to 'Secrets of Women': The Transformation of Gynecological Literature in the Latter Middle Ages." *Journal of Medieval and Early Modern Studies* 30,1: 5–39.
- Green, Monica H. 2000b. "Medieval Gynecological Texts: A Handlist." In *Women's Healthcare in the Medieval West: Texts and Contexts*. Aldershot: Ashgate. Pages 1–36 in the appendix.
- Green, Monica H, ed. and trans. 2001. *The Trotula: A Medieval Compendium of Women's Medicine*. Philadelphia: University of Pennsylvania Press.
- Green, Monica H. 2008. *Making Women's Medicine Masculine: The Rise of Male Authority in Pre-Modern Gynaecology*. Oxford: Oxford University Press.
- Green, Monica H. 2011. "Making Motherhood in Medieval England: The Evidence from Medicine." In *Motherhood, Religion, and Society in Medieval Europe, 400–1400: Essays Presented to Henrietta Leyser*. Edited by Conrad Leyser and Lesley Smith. Aldershot: Ashgate. Pages 173–203.

- Green, Monica H. 2016. "Constantine's *De genecia* Revisited: Women's Medicine at Monte Cassino." Paper presented at the International Congress of Medieval Studies, Kalamazoo, MI, May 14.
- Green, Monica H. 2019. "The Recovery of 'Ancient' Gynaecology: The Humanist Rediscovery of the Eleventh-Century Gynaecological Corpus." In *Transmission of Knowledge in the Late Middle Ages and the Renaissance*. Edited by Outi Merisalo, Miika Kuha, and Susanna Niiranen. Turnhout: Brepols. Pages 45–54.
- Green, Monica H. 2021. "'Cliff Notes' on the Circulation of the Gynecological Texts of Soranus and Muscio in the Middle Ages". Cited 18 May 2020. Online: https://www.academia.edu/49293690/Green_Cliff_Notes_on_the_Circulation_of_the_Gynecological_Texts_of_Soranus_and_Muscio_in_the_Middle_Ages_2021_.
- Hanson, Ann Ellis, and Monica H. Green. 1994. "Soranus of Ephesus: *Methodicorum princeps*." In *Aufstieg und Niedergang der römischen Welt. Teilband II, Band 37.2*. Edited by Wolfgang Haase and Hildegard Temporini. Berlin: De Gruyter. Pages 968–1075.
- Hess, Helmut. 1998. "Gynaecia Mustionis": *The Midwives' Catechism of Mustio (englisch und lateinisch) & Eucharius Rösslin's "Rosegarden"*. 2 vols. Frankfurt am Main: Haag and Herchen.
- Jacquart, Danielle, and Françoise Micheau. 1996. *La médecine arabe et l'Occident médiéval*. Paris: Maisonneuve et Larose.
- Kwakkel, Erik, and Francis Newton. 2019. *Medicine at Monte Cassino: Constantine the African and the Oldest Manuscript of his Pantegni*. Turnhout: Brepols.
- Lieber, Elinor. 1984. "Asaf's 'Book of Medicine,' a Hebrew Encyclopedia of Greek and Jewish Medicine, Possibly Compiled in Byzantium on an Indian Model." *Dumbarton Oaks Papers* 38: 233–249.
- Lieber, Elinor. 1991. "An Ongoing Mystery: The So-Called Book of Medicine Attributed to Asaf the Sage." *Bulletin of Judeo-Greek Studies* 6: 18–25.
- Pormann, Peter E., and Emilie Savage-Smith. 2007. *Medieval Islamic Medicine*. Edinburgh: Edinburgh University Press.
- Preuss, Julius. 1911. *Biblisch-talmudische Medizin: Beiträge Zur Geschichte Der Heilkunde Und Der Kultur überhaupt*. Berlin: S. Karger.
- Radicchi, Rino. 1970. *La "Gynaecia: di Muscione. Manuale per le ostetriche e le mamme del VI sec. d. C.* Pisa: Giardini.
- Rose, Valentin. 1882. *Sorani Gynaeciorum vetus translation latina*. Leipzig: Teubner.
- Samely, Alexander. 2017. "Educational Features in Ancient Jewish Literature: An Overview of Unknowns." In *Jewish Education from Antiquity to the Middle Ages: Studies in Honour of Philip S. Alexander*. Edited by George J. Brooke and Renate Smithuis. Leiden: Brill. Pages 147–200.
- Shatzmiller, Joseph. 1994. *Jews, Medicine and Medieval Society*. Berkeley: University of California Press.
- Shoham-Steiner, Ephraim. 2006. "'For a Prayer in That Place Would Be Most Welcome': Jews, Holy Shrines, and Miracles. A New Approach." *Viator* 37: 369–395.
- Steinschneider, Moritz, ed. 1888. "Haqdāmat hama'ātiq biktāb yād paris 1190." *Magazin für die Wissenschaft des Judenthums* 15: 197 and 6–14 (Hebrew section).
- Steinschneider, Moritz. 1893. *Die hebräischen Übersetzungen des Mittelalters und die Juden als Dolmetscher*. Berlin: Kommissionsverlag des Bibliographischen Bureaus.
- Verskin, Sara. 2020. "Gender Segregation and the Possibility of Arabo-Galenic Gynecological Practice in the Medieval Islamic World." In *Gender, Health, and Healing, 1250–1550*.

- Edited by Sara Ritchey and Sharon Strocchia. Amsterdam: Amsterdam University Press. Pages 291–314.
- Visi, Tamás. 2016. “Medieval Hebrew Uroscopic Texts: The Reception of Greek Uroscopic Texts in the Hebrew ‘Book of Remedies’ Attributed to Asaf.” In *Texts in Transit in the Medieval Mediterranean*. Edited by Tzvi Langermann and Robert G. Morrison. University Park PA: Penn State University Press. Pages 162–196.
- Visi, Tamás. 2021. “The Book of Asaf and Shabatai Donnolo’s Hebrew Paraphrase of Hippocrates’ *Aphorisms*.” In *Defining Jewish Medicine: Transfer of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 313–335.
- Wallis, Faith. 2011. “Why Was the *Aphorisms* of Hippocrates Retranslated in the Eleventh Century?” In *Vehicles of Transmission, Translation, and Transformation in Medieval Textual Culture*. Edited by Robert Wisnovsky et al. Turnhout: Brepols. Pages 173–193.
- Ziegler, Joseph. 1997. “Steinschneider (1816–1907) Revised: On the Translation of Medical Writing from Latin into Hebrew.” *Medieval Encounters* 3,1: 94–102.
- Zonta, Mauro. 2011. “Medieval Hebrew Translations of Philosophical and Scientific Texts: A Chronological Table.” In *Science in Medieval Jewish Cultures*. Edited by Gad Freudenthal. Cambridge: Cambridge University Press. Pages 17–73.

III. Theorizing Sex, Sexuality and the Female Body

Created to Bleed

Blood, Women's Bodies and Gender in Ancient Mesopotamian Medicine*

ULRIKE STEINERT

ABSTRACT: This contribution presents a study of female blood and genital discharges in medical and other textual sources from Mesopotamia, investigating medical concepts and cultural views surrounding menstruation and other processes linked to the female body, such as the fluids emitted during and after birth, menarche, menopause, and fertility. Assyriological research has up to now focused mainly on the problem of impurity associated with female blood, an issue which is controversial. The present study takes a contextual-interpretative approach arguing that Mesopotamian views concerning women's blood have to be seen in relation to the ambivalent status attributed to blood and to genital discharges in Mesopotamian culture. The article discusses the terms and expressions for different types of haemorrhage and female genital discharges, and analyses references to female bleeding in various contexts, in order to recapture the significance and meanings attributed to these bodily emissions. The facets evolving from the analysis reflect in culture-specific ways how views of women's bodily processes are infused with social meaning, reflecting cultural evaluations of women's biological and social roles. In short, female blood is seen in contradictory and context-dependent ways: as an unavoidable "trouble", as a potential danger to a woman's (or her foetus') life and health, as the counterpart to male warriors' shedding of blood in battle, but sometimes also as a source of female power and pollution posing a

* The research presented here was funded by a Medical Humanities Small Grant of the Wellcome Trust (London), and was carried out during a visiting scholarship at the Institute of Social and Cultural Anthropology (School of Anthropology) of the University of Oxford and at Wolfson College, Oxford, in January–March 2016 (Grant-No. 200707/Z/16/Z). Final work on this article took place during my employment in the project BabMed–Babylonian Medicine at Freie Universität Berlin, and in the Research Training Group (GRK 1876) "Early Concepts of Humans and Nature" at Johannes Gutenberg-Universität Mainz. The BabMed project has been funded by the European Research Council (ERC) under the European Union's Seventh Framework Programme (FP7/2007–2013; Project No. 323596); the GRK 1876 is funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – 215342465/GRK1876/2). I would like to thank Elisabeth Hsu and Jacob Dahl for inviting and accommodating me at Oxford, for giving me the opportunity to present my research at departmental seminars, for their support and feedback, which have inspired me to embrace both historical and anthropological perspectives on the body in the present paper. I am also grateful to Marie-Christine Ludwig, Maddalena Rumor and JoAnn Scurlock for discussions, for sharing unpublished work or information on textual parallels and for their helpful comments on aspects of the paper. I would further like to express my thanks to the reviewers for their valuable feedback and corrections.

threat to men's bodies, which however can be harnessed to serve socially sanctified ends, to get rid of evil and to fight illness.

1. Hippocratic Medicine and Comparative Studies of Menstruation

Cross-cultural and historical analyses of menstruation offer a striking example of how the body is not just something naturally or biologically given, but also culturally produced. While menstruation is not universally regarded as an essential prerequisite of the female body, marking sexual difference, it is "one of the primary ways in which the body has been rendered intelligible as sexed".¹ The history of representing the female body in discourses on menstruation also reveals how constructions of sexual difference have served to ground evaluations of women and their bodies as inferior to men.² For instance, in Hippocratic medicine, to be a woman means to menstruate (menstruation is the first function of the womb).³ According to the Hippocratic authors, women are wetter than men, because their bodies absorb more fluid (e.g. from food) due to their spongy and loose (wool-like) texture. Due to their constitution, which differs from that of the male body, women have to evacuate this surplus fluid in their bodies through a regular flow of menstrual blood.⁴ The representation of the female body as an unstructured, amorphous fleece in contrast to the male body (which is compared with a woven cloth) underlines the marginalised position of women in Greek society and underscores the stereotype of female inferiority.⁵

The Hippocratics called the menses *gynaikeia* "women's things" and "the natural things" (*ta kata physin*), but also used designations that indicate its ideally

¹ Shail and Howie 2005, 6, with Scheper-Hughes and Lock 1987, 7. With regard to the varying cultural constructions and explanations of menstruation, it is noteworthy that even in today's biological accounts, there is no universal agreement on the function of menstruation, see Green 2005, 62 n. 3.

² See e.g. the studies and surveys in Buckley and Gottlieb 1988; Delaney, Lupton and Toth 1988; Shail and Howie 2005. See also Winslow 1980; Crawford 1981; Martin 2001; further on the subject of menstruation, see also Furth and Shu-Yueh; 1992; Philip 2006; Read 2013; Sridhar 2019.

³ King 1998, 76; cf. Arata 2005, emphasising the centrality of observing a woman's menses in Hippocratic medicine as a diagnostic tool to detect and interpret pathological processes in the female body. A differing view on the necessity of the menses is expressed in the second century CE by Soranus (*Gynecology*, Book I, Chapters IV–VI; Temkin 1991, 16–27), arguing that women could stop menstruating if they adopted a male lifestyle. Soranus connects menstruation with the ability to conceive, but criticises other opinions that regular menstruation was crucial for women's health and served to discharge surplus material from the body. For discussions of menstruation in Greek medicine and science, see also Dean-Jones 1989; 1991, 114–120; 1994, 89–103; Salvo 2021.

⁴ Dean-Jones 1989, 178–179; 1991, 114–115; see also Hanson 1992, 36–39. Aristotle explained menstruation as a consequence of women being colder and having less internal heat than men, so that they could only partially transform ingested substances, the surplus of which they expelled as the menses.

⁵ See e.g. Hanson 1992; Dean-Jones 1991; King 1998.

monthly appearance (*katamênia, epimênia*).⁶ This view, similar to our own understanding of this process (as biologically given and natural), can be contrasted with evidence showing that (cross-culturally and historically) menstruation is more likely to have been scanty and infrequent, that menarche occurred later, menopause started earlier, and bleeding occurred with greater intervals (e. g. due to different diets, long lactation periods, or multiple pregnancies).⁷ Various terms for the menses attested e. g. in medieval or early modern period documents, such as “flowers”, “purgations”, the “monthly sickness/infirmity” or even “filth” and “poison”, highlight prominent and recurring aspects of discourses on menstruation and female body: on the one hand its importance for women’s health and fertility, on the other its perceived negative characteristics, as a source of women’s physical vulnerability and weakness and as a source of disgust and danger to men.⁸ Some of these aspects are also emphasised in traditional Chinese medicine, which views regular menstruation as central to women’s health (and vice versa, irregularities or abnormalities in the menstrual discharges are perceived as signals of imbalance or sickness), but at the same time associates women’s reproductive processes (including menstruation, childbirth and lactation) with a loss of vital energy and blood, causing a potentially dangerous depletion that can likewise lead to illness.⁹

These examples illustrate the wide range of cross-culturally differing views concerning menstruation. While in some societies, it is regarded of the utmost importance for a woman to menstruate and is seen as a sign of a woman’s fertility defined as central to her social roles as child-bearer, in other societies genital bleeding is not regarded as something typical or restricted to women. In some societies in Melanesia for instance, men practice penis-bleeding, which is viewed as equivalent to female menstruation and designated with the same term.¹⁰ Evaluations of menstruation also differ cross-culturally: some societies see it as polluting or powerful, while in others it is an unmarked category or positively valued (e. g. as a con-

⁶ King 1998, 29 *passim*; von Staden 1992, 14 with n. 50; see also Soranus, *Gynecology* Book I, IV 19 (Temkin 1991, 16).

⁷ King 1998, 4–5; Crawford 1981, 66–67; Strassmann 1997.

⁸ See e. g. Crawford 1981; Bildhauer 2005; Green 2005; McClive 2005; Read 2013, 24–38; Sridhar 2019; for Biblical attitudes, see Feder 2022, 207–224 and below 3.1. On the medicalisation of menstruation in modern Western culture, including the emphasis on “protection” in modern advertising for female hygiene products, see e. g. Delaney, Lupton and Toth 1988; Houppert 2000; Vostral 2005. For varying attitudes towards menstruation and other female fluids in the Greco-Roman world, see Salvo 2021 and other contributions in Bradley, Leonard and Totelin 2021.

⁹ See e. g. Furth 1999; Wilms 2005. The treatment of menstrual disorders, especially irregular vaginal discharges, gained an important role in medieval Chinese texts dealing with women’s conditions, aiming on the one hand at regulating menstrual flows and at balancing and supplementing the body with supporting and nourishing prescriptions. Cf. Furth and Shu-Yueh 1992 for the continuity of such treatments in TCM practiced in contemporary Taiwan.

¹⁰ See e. g. Lewis 1980, 112; Delaney, Lupton and Toth 1988, 267–273. Cf. also Green (2005, 60–61) and Stolberg (2005, 95–98) for notions of male menstruation in medieval and early modern Europe.

firmation of a woman's ability to conceive).¹¹ Even within one society, discourses on menstruation can reveal differing or contradictory cultural perceptions, as witnessed for instance in scientific or medical theories, in religious teachings, in symbolic representations in literature and other artistic media, or in the shared beliefs and practices of popular culture.

2. Mesopotamian Notions of Women's Blood

2.1. *Problems and Sources*

Following early approaches by Durkheim and Mauss who explored the social basis of religious and body symbolism, anthropological studies have interpreted the widespread pollution beliefs associated with menstruation as marking male fears of women in societies where female power is viewed ambiguously.¹² More recent anthropological and historical studies on menstruation have shifted away from the tendency to present beliefs about menstruation in a holistic and uniform fashion, mostly from the point of view of the dominant male (and often religious) authority, but focus instead on the perspectives and experiences of women, pointing out the range of cultural beliefs and practices associated with menstruation as well as women's varying evaluations, strategies and agency with regard to cultural beliefs and practices concerning menstruation.¹³

A modern researcher trying to reconstruct Mesopotamian notions of menstruation faces similar problems. Virtually all of the textual sources stem from a male, scholarly environment and perspective. Thus, the most important documents (which are also the most explicit), namely medical, ritual and omen texts addressing or treating problems of female genital bleeding, were written by male specialists who sometimes performed cultic or priestly functions as well. Although we know that female professionals engaged in women's health care, such as midwives, they have not left written sources reflecting on these issues.¹⁴ Other documents such as letters (mostly written by men) that have been cited as direct reference to women's monthly bleeding, are sparse and engage with the topic (if at all) only in a euphemistic or vague manner. We completely miss the voices and perspectives of women, which potentially distorts our picture of ancient beliefs and practices concerning women's bodily processes. In addition, we cannot but notice a silence in the written sources concerning a number of issues related to the topic, such as

¹¹ See e. g. the surveys in Buckley and Gottlieb 1988; Shail and Howie 2005.

¹² See Douglas 1966; 1975; with critical re-evaluation in Gottlieb and Buckley 1988, 1–50, esp. 28–34; cf. also Furth and Shu-Yuen 1992.

¹³ See e. g. Buckley and Gottlieb 1988; Winslow 1980; Crawford 1981; Furth and Shu-Yueh 1992; Green 2005; Read 2013.

¹⁴ For the predominantly male perspective of Mesopotamian medicine, in which the male body serves as the normative body, cf. also Heeßel 2006.

menarche (and rituals connected to it). We are thus constantly confronted with the question whether the silence on such matters is due to the nature of the textual sources and the male dominance reflected in them, whether this has to be explained in the light of cultural etiquettes, or whether specific notions and practices simply did not exist (e. g. rituals of menarche).

One characteristic of the Mesopotamian medical text corpus in contrast, for example, to Greco-Roman medical works is a general lack of theoretical treatises and thus a lack of explicit theoretical discussions of the local healers' notions concerning normal female bodily processes such as menstruation, which often poses problems for a modern interpreter aiming to clarify the exact meanings and notions associated with specific terms for body substances and physiological processes. Thus, medical cuneiform texts are predominantly concerned with pathological rather than with 'normal' processes such as menstruation or menopause, but normal body processes taken for granted may be identified or elucidated through looking at descriptions of variations or deviations from normal processes.¹⁵

The Mesopotamian medical text corpus consists mainly of diagnostic and therapeutic texts (the latter of which can be divided into medical prescriptions, incantations, rituals), as well as a number of medical commentaries (on diagnostic/therapeutic texts) and drug compendia.¹⁶ The majority of the preserved texts date to the first millennium BCE and stem from cities in Babylonia and Assyria (where they were often unearthed in temple and palace libraries or in the houses of healing specialists), but healing incantations are already attested from the third millennium onward, and a number of tablets with medical prescriptions date to the late third and the second millennium BCE.¹⁷

With regard to women's health matters, it is noteworthy that in Mesopotamian sources, remedies for women are usually not mixed with prescriptions for unrelated topics (e. g. lung diseases) in first millennium BCE texts, i. e. they form a specialised, delimited sub-corpus.¹⁸ Therapeutic texts display a typical format and

¹⁵ For instance, the medical texts themselves never state an explicit connection between the ceasing of the menses and fertility in older women, although there are a few preserved remedies for the case that "a woman's blood is cut off" or for the case that a woman's fecundity ("birth-giving") has stopped, possibly aiming at a reversal of the "natural" processes of menopause. For discussion and text examples cf. Böck 2010, 114; 2013, 33–35; Steinert 2013, 5–6 and below.

¹⁶ For an overview of the medical corpus and text genres, see e. g. Biggs 1987–1990; Attinger 2008; Robson; 2008; Geller 2010a, 87–117; Janowski and Schwemer 2010, 1–76; Scurlock 2014a; Fales 2019. Mesopotamian medical texts (diagnostic texts and prescriptions) are written in Akkadian, but incantations were also composed in Sumerian or in other, less well-known languages of the Ancient Near East.

¹⁷ Texts often cannot be dated exactly, if the text lacks a colophon providing a date or if the text has no clear archaeological context or provenience.

¹⁸ For the corpus of Mesopotamian women's healthcare texts, see e. g. Böck 2010; 2013; Couto-Ferreira 2013; 2014; Scurlock 2014a, 571–619; 2014b; Scurlock and Andersen 2005, 259–283; Steinert 2018; in preparation; Minen 2019. Within the preserved text sources, it is possible to differentiate different types of manuscripts: shorter excerpts and school texts (containing only

recipe structure: each prescription is usually marked as a delimited entry through horizontal rulings separating it from other prescriptions, and a prescription normally consists of a symptom description or purpose statement, followed by the recipe (giving a list of ingredients and instructions for the preparation and application of the remedy). In first millennium BCE texts, medical prescriptions are often combined with healing spells, which were usually recited over the prepared remedy before application.¹⁹

In the following analysis, I am discussing scholarly texts as well as literary texts such as myths, which have a bearing on the topic and allow a more contextualised understanding of Mesopotamian notions of female blood. The aim is to present a nuanced picture of cultural views regarding female bleeding, in comparison with general notions regarding blood and other bodily discharges. The next sections discuss terms and expressions for different female discharges in medical and other contexts, in order to recapture different facets of the ancient healers' views concerning women's physiological processes. Linking hints in incantations and mythological texts, I propose that Mesopotamian texts reflect a "two-gendered model of bleeding", which ties in, on the one hand, with cultural views regarding women and their social roles in relation to men, as well as with views concerning human nature in general. In the last part of the paper, I analyse contradictory and ambivalent evaluations regarding female blood, reviewing textual sources and expressions pointing to notions of pollution associated with female genital discharges, especially after delivery. A comparison with the impurity of male genital discharges helps to delineate Mesopotamian beliefs concerning the polluting quality of women's discharges in a more nuanced way. Finally, a discussion of women's bodily substances as remedies in medical texts will provide a broader perspective, since it focuses on the positive aspects that were sometimes ascribed to bodily emissions.

2.2. *The Terminology of Female Discharges in Mesopotamian Gynaecological Texts*

The gynaecological texts offer a number of different terms for female genital discharges including menstrual blood. The most common descriptive expression encountered in these texts is *dam(ū) sinništi* (MÚD[.MEŠ] MUNUS) "a woman's blood". Since Mesopotamian medical texts are largely practice-oriented and do not contain theoretical treatises explaining and spelling out the healers' understanding of these terms and their views concerning bodily processes such as menstruation and its functions, it is notoriously difficult to define what exactly is actu-

one or a few remedies) and longer collections of recipes inscribed on large multi-column tablets, which either deal with one specific topic or with multiple topics.

¹⁹ For medical incantations see e. g. Collins 1999; Cunningham 1997; Geller 2007a; 2010, 91–97, 109–111; Janowski and Wilhelm 2008; Janowski and Schwemer 2010.

ally meant by such terms (unless we are lucky enough to have a text commentary explaining the term at hand).²⁰ The most prominent context in which the expression “a woman’s blood” occurs, is stopping this discharge when it is excessive or abnormal, and it seems that the healers’ focus of attention was on regulating abnormalities rather than explaining normal bodily processes such as regular menstrual bleeding. The expression *dam sinništi* should rather be understood in a general, inclusive sense of “female genital bleeding” and presumably includes both the regular discharges that we call menstruation as well as abnormal phenomena. One should note however that none of the terms discussed in the following pages alludes to a concept of monthly regularity (as do some ancient Greek terms) and that the Babylonian understanding of menstruation thus remains rather vague and unclear (e.g. we lack textual references drawing a clear connection between the menses and female fertility).

A comparison of the attestations suggests that the expression *dam sinništi* “a woman’s blood” signifies bleeding in several different contexts. Thus, in the following passages the references to a haemorrhage that does not stop by itself apparently describe cases of abnormally heavy or acute bleeding:

K. 263+10934 obv. 1–5 (Neo-Babylonian tablet from Nineveh; 7th cent. BCE):

[If a woman’s blood flow]s (and) cannot be stopped, in order to stop it:

You crush [...], mix it with cedar ‘blood’ (resin),

you wrap it [in red wool], you insert it into her womb (viz. vagina) and it will stop.

[(If) ditto], you pound [*kal*]*û* (ochre) and *kalgukku*-mineral (pigment) together,

you [wr]ap it [in red wool], ditto (i.e. you insert it into her womb [viz. vagina] and it will stop).²¹

SpTU 4, No. 153 obv. 1–4 (Late Babylonian tablet from Uruk, 5th/4th cent. BCE):

If a woman’s blood flows and cannot be stopped, in order to stop (it): you prescribe (lit. “give her”) alum, *kalgukku*-mineral, [a mixture?] for ‘soaking’ (i.e. absorbing the flow); thereafter you give her the (mixture) for ‘soaking’ and ‘damming up’ (the flow); thereafter you give her thi[s] mixture [of alum?] and *kalgukku*-mineral: You roast alum, *kalgukku* – this means: [...], you make [a suppository?]. These drugs, as much as one has told you (to be appropriate), she applies one (portion) at a time, until? the wetness? has [dried? ...].²²

²⁰ The vagueness, fluidity and fuzziness of the terminology for female genital discharges is also encountered in other medical cultures, see e.g. King 1998, 90; Wilms 2005; 2006; McClive 2005; Steinert 2013 on the terminological overlaps between “blood” and “fluids” for different female genital discharges. Fuzziness appears to be a general feature of terminologies for bodily fluids (and other body parts), however, see Bradley, Leonard and Totelin 2021, especially the contribution by Coker 2021.

²¹ [DIŠ MUNUS MÚD-ša DU-k]*u*? NU KUD-su a-na KUD-si/[xxxx] ta-sàk ina MÚD gisEREN HI.HI/[ina SÍG.HÉ.ME.DA] NIGIN-mi ana ŠÀ.TÛR-ša GAR-ma KUD-is/[DIŠ?] KL.MIN IM.KA]L IM.KAL.GUG DIŠ-niš SÚD/[ina SÍG.HÉ.ME.DA NIG]IN-mi KL.MIN. See Steinert 2012 for an edition of the text.

²² Von Weiher 1993, 89–91. DIŠ MUNUS MÚD.MEŠ-šu DU.MEŠ-ma la ip-par-ra-su ana pa-ra-si na⁴gab-ú IM.KAL.GUG .../ša lu-ub-bu-ku SUM-ši EGIR ša lu-ub-bu-ku u ŪŠ-e SUM-su EGIR maš-šit an-n[*it* ša na⁴gab-ú?]/u IM.KAL.GUG SUM-su na⁴gab-ú tu-qal-la IM.KAL.GUG

The problem of excessive, acute bleeding can occasionally be stated explicitly, as in this rubric from a damaged recipe text:

BM 45736 obv. i 13' (unpublished Late Babylonian tablet from Babylon, ca. 5th cent. BCE): [... (a remedy) *wh*]en a woman's blood is excessive in quantity so that she is in a critical condition.²³

A focus on abnormal discharges is also apparent in the next examples, which reveal that the Babylonian healers regarded bleeding during pregnancy as problematic, because it entailed the danger of the woman losing her foetus (*ša libbiša*, lit. "that of [i. e. which is in] her belly"):

BM 42313+ rev. 12–14 (Late Babylonian tablet from Sippar, ca. 6th/5th c. BCE):

If the blood of a woman who is three months (pregnant) flows: (a remedy) so that she does [not abort] her foetus: [...] cow's horn(?), a *takpītu*-pearl(?), fourteen grains of the *nikip-tu*-plant, pith of the *errū*-plant (colocynth?) [...], all these *drugs* you put into a linen *dīdū*-cloth, [...].²⁴

The next passage demonstrates that the expression "a woman's blood" could also refer to the fluids and blood expelled during and after delivery. The focus of attention of such prescriptions lies again on regulating an abnormal and acute flow, which is potentially life-threatening:

SpTU 4, No. 153 obv. 7–9 (Late Babylonian tablet from Uruk, 4th/3rd cent. BCE):

Maštakal (and) *simbirru*-plant² are for cooling a pregnant woman, as it is said: You prescribe (lit. "give her") (it) for a woman who¹ has given birth and (whose) blood cannot be stopped. You prescribe (it) for a pregnant woman who is in her third or fourth month and keeps discovering blood. You prescribe (it) on an auspicious day, all (day) long(?), (but) you [do not(?)] prescribe (it) on an un[favourable (?), *lā magru*] day, so that she cools down in her flesh and the blood will be held back. (These are) drugs that absorb² (lit. 'soak') [...].²⁵

*lib-bu-u*² [...] / DÛ-uš Ú.MEŠ *an-nu-tu ma-la iq-bak-ka* 1.TA.ÀM *ina-aš-ši ki-i ru-ṭib-ti i-b[a-lu*² ...]. For further discussion and examples see also Steinert 2013.

²³ [... *e-nu*]-*ma*² MUNUS MÚD.ME-šú *at-ru-ma nak-da-a*[t]. Cf. CAD N/1 154 sub 3. For the text see Steinert (in preparation).

²⁴ DIŠ MUNUS šá 3 ITI MÚD-šú DU-*ak ana šà šà-šà* [NU ŠUB ...] SI ÁB / *ták-pít* 14² ŠE² ŠIM.^dMAŠ Ĭ.UDU ÚKUŠ.LAGAB [...] ʿx xʿ / ŠIM².H.IA DÛ.A.BI *ina di-di* GADA² GAR-*an x*[...]. For the text, see Steinert (in preparation). The *dīdū*-cloth was an item of underwear worn by women around the waist and attached with straps (CAD D 135–136; cf. Wasserman 2019, 1131–1133, 1138 who interprets *dīdu/ū* as a tunic-like skirt), but here the cloth was probably used as a tampon to insert the *materia medica* into the woman's vagina. For the therapeutic methods applied to stop gynaecological haemorrhage, see Steinert 2012. For the texts concerned with bleeding during pregnancy and avoiding miscarriage see also Finkel 1980; Scurlock 1991, 137–143; 2014, 571–581, 585–589; Schuster-Brandis 2008, 147–150; Böck 2013, 43–46; Couto-Ferreira 2013; Steinert 2013, 4.

²⁵ Von Weiher 1993, 89–91, ⁴IN₆.ÚŠ *sim*²-*bar*² *ana tak-ša-a-tú šá* MUNUS.PEŠ₄ E-ú MUNUS šá¹(text: šú) Û.TU-*ma* MÚD.MEŠ *la ip-par-ra-su* SUM-*s*[u] / šá MUNUS.PEŠ₄ šá 3 4 ITI.MEŠ-šú u MÚD *i-ta-nam-ma-ru* SUM-*su*: *ina u₄-mu* ŠE BAD-šú SUM-*su ina u₄-m*[u] *l[a*² ŠE NU²] / SUM-*su ina šá* UZU-šú ŠED₇-ú u MÚD *ik-kal-lu-u*: Ú.MEŠ šá ú-*lab-bak*-[ku² ...]. For discussion see also Steinert 2012, 79.

Beside the unspecific descriptive expression “a woman’s blood”, the therapeutic texts sometimes employ a special term to designate bleeding during pregnancy: *nahšātu*, a feminine plural noun related to the verb *nahāšu* “to prosper; to thrive”. The etymology indicates that *nahšātu* is used in a euphemistic fashion (probably alluding to the observation that the foetus of a woman who suffers from this discharge is not healthy and does not prosper). A Late Babylonian medical commentary from Uruk clarifies the meaning of the term:

SpTU 1, No. 39: 7'–8' (5th/4th cent. BCE):

ša nahšātu marṣat / sinništu ša ina mērešu damu itanammaru

(A woman) who suffers from *nahšātu* – (this means) a woman who keeps seeing blood during her pregnancy.²⁶

In addition, a few texts feature another descriptive expression, *dam harišti* “the blood of a woman in childbed”, designating especially the postpartum discharges (lochia). From prescriptions that aim at triggering the flow of the *dam harišti*, we learn that Mesopotamian healers regarded these discharges as necessary and normal, because they attribute symptoms such as fever (pointing to puerperal infection) to the fact that the postpartum blood is blocked or retained in the womb:

BAM 240 rev. 39'–42' (Neo-Assyrian tablet from Assur, 8th/7th cent. BCE):

If a woman gives birth and subsequently she has intestinal fever, vomits, the inside of [...]: (it is) the blood of the woman in childbed, which has been locked in her womb; this woman [...] during h[er] labour [...]. You pound wheat flour, powder of roasted *kasû* (tamarind?), powder of chaste tree² (wood), *kukru*-plant, juniper², [...], sesame bran (and) seed of the false carob (lit. ‘dove excrement’) [in] a mortar, [mix (it)] with *billatu*-substance, [you give it to her to drink and she will get well(?)].²⁷

There are two more Akkadian terms, which occur in a few texts from the first millennium BCE and which seem to be used in a more restricted sense indicating that they sometimes refer to the menstrual period in particular. The first one, *sagû* “flow (of blood)”, is possibly connected to the verb *sagû* “to trouble”.²⁸ This noun occurs most often in the context of an irregular non-occurrence of the menses and is interchangeable with *dam sinništi* “a woman’s blood” in this context. The texts

²⁶ Hunger 1976, 48; Wee 2017, 240; 2019, 323–325, 328. For discussion see also Stol 2000, 203 with n. 24.

²⁷ DIŠ MUNUS Û.TU-*ma* KÚM *er-ri* TUKU-*ši i-ár-ru ŠÀ šī* [...] / MÚD *ha-riš-ti šā ina ŠÀ-šā it-te-[es]-ke-ru* MUNUS BI *ina Û.TU-š[á ...]* / ZÍD ŠE.GIG ZÍD GAZI^{sar} BI[L].MEŠ ZÍD ^{gis}ŠE. NU ^{sim}GÚR.GÚR ^{gis}L[I[?] xxxx] / DUH.ŠE.GIŠ.Ī ŠE₁₀ TU^{mušen}.MEŠ [*ina*] ^{na4}NA.ZÀ.HILI SÚD *ina* DID[A HI.HI NAG-*ši-ma ina-eš*(?)]. For the text cf. also Böck 2010, 112–114; Steinert 2013, 6, 9; Scurlock 2014a, 608–616; Bácskay 2018, 108–112.

²⁸ Cf. CAD S 27 sub *sagû* B, while AHw 1003 sub *sagû* II and CDA² 310, among others, regard *sagû* as a menstrual bandage. See further Wasserman 2019, 1135, who includes it in a survey of Akkadian words for underwear, but notes possible confusion or overlap with the lemma *sāgu* “a (workers’) apron” (AHw 1003 sub *sāgu* I).

in question describe the symptom as “the blood being cut off/not seen”, beside purpose statements stating the aim of the therapy as “to make the flow appear” (*ana sagî kullumi*). Since some of the ingredients used in the recipes to induce bleeding recur also in recipes to provoke abortion, it is likely that these prescriptions could also be used to break off an early-term pregnancy by inducing menstrual bleeding:²⁹

BM 38624+ obv. ii 28'–30' (Late Babylonian tablet from Babylon):

(A remedy) for a woman to make her (menstrual) flow (*sagû*) appear: you mix one third of *tīy*[*atu*-plant, ...], root of male *pillû*-plant (mandrake³) with *baluhhu*-resin, [...], she will have (lit. see) her (menstrual) flow (*sagûša immar*). A remedy of [...].³⁰

A catchline in a therapeutic tablet belonging to the Late Babylonian compendium *Šumma amēlu muhhašu umma ukâl* (“If a man’s skull contains heat”) states that the following tablet in the series dealt with the comparable problem of a woman whose blood has stopped (lit. is “cut off”):

SpTU 1, No. 59: 14' (Late Babylonian tablet from Uruk, 5th cent. BCE):

DIŠ MUNUS MÚD-ša KUD-ma MÚD-ša NU [*innamir*]

If a woman’s blood is cut off so that her blood [is not seen] ³¹

It is impossible from such laconic statements to clarify the exact underlying reasons of the patient’s amenorrhea (e.g. an early-term pregnancy, onset of menopause, a hormonal disturbance, scarce menstruation due to insufficient diet, etc.).³² However, it seems clear from some prescriptions aiming to stop “the flow” (*sagû*) that the word can function as a synonym to the expression “a woman’s blood” (*dam sinništi*):

BM 73802+ obv. 6' (Late Babylonian tablet from Sippar[?]):

[... *ina*] SÍG.ÅKA *ana ŠĀ.TÛR-šu* GAR-ma 'sa'-gu-šu KUD-s[u²]

[...] you insert (the medication) into her womb (viz. vagina) [in] a wad of wool and her flow will stop.

The meaning “menstrual flow” is also implied by a medical commentary on Tablet 36 of the *Diagnostic Handbook* (SpTU 1, No. 39: 6'), which equates the term

²⁹ Cf. also Böck 2013, 37–40.

³⁰ *ana* MUNUS *sa-gu-ša ana kul-lu-mu šal-šu* ⁴KU.NU.[LUH.HA ...] / SUHUŠ ^{giš}NAM.TAR NITA *ina* 'ILLU ^{šim}BULUH HILHI [...] / *sa-gu-ša im-mar tu-ub-tú šā har-x*[...]. For the text, see also Steinert 2013: 6, 8; 2018; in preparation.

³¹ Hunger 1976, 65–66; Böck 2010, 110.

³² Cf. Stol 2012, 278–279. A connection with menopause may be indicated by the parallel expressions MUNUS šā MUD AL.KUD “woman for whom childbearing has stopped” and MUNUS KUD-tu₄ (*sinništu parištu*) “women who is cut off” found in ritual texts, which refer to a post-menopausal woman (who is supposed to spin wool used in the ritual). The logogram MUD used in these expressions, which is equated with *alādu* “to give birth”, should be differentiated from MÚD “blood” and is probably not a reference to the ceasing of the menses (see CAD P 167 sub 1b and 187 for references; Biggs 2006, 43).

sagû with *dam ardati* “blood of a (young) woman”, i. e. a woman of childbearing age.³³

A second term appearing exclusively in Late Babylonian texts in the context of “not seeing” the (menstrual) blood is the logogram NÍG.GIG. It is probable that NÍG.GIG has to be read as Akkadian *maruštu* here, because this word occurs in a comparable context in syllabic spelling.³⁴ However, the word *maruštu* (although derived from *marāšu* “to be sick”) does not denote sickness in particular, but usually means “trouble; misfortune; difficulty; hardship”.³⁵ In the context of women’s bleeding, NÍG.GIG/*maruštu* “trouble” thus seems to be a euphemistic expression attributing a negative connotation or value to this bodily process. Although the expression may hint at women’s experiences of feeling unwell or uncomfortable during their menses, the word does not *per se* allude to a view of menstrual bleeding as something polluting.³⁶

SpTU 1, No. 59: 12’–13’ (Late Babylonian, from Uruk, 5th/4th cent. BCE):

[So that a woman] who does not see her ‘trouble’, will see her ‘trouble’: You crush ‘heals twenty’-plant, [...] -root, [...] (and) *šašumtu*-plant together, in oil, beer and/or vinegar [...].³⁷

The brief survey of Akkadian terms and expressions for gynaecological bleeding in Mesopotamian medical terminology reveals that none of the terms is connected with the notion of regularity or monthly occurrence, and that at least one term (NÍG.GIG/*maruštu*) is associated with negative connotations, denoting something troublesome, but the term does not refer to something polluting or defiling. Although the words *sagû* and NÍG.GIG/*maruštu* encountered in first millennium

³³ Hunger 1976, 48; cf. Wee 2017, 240; 2019, 323–325, 327–328. In the respective passage in the manuscript of the Tablet 36: 100–102 itself, the word *sagû* is written defectively, but the passage likewise seems to refer to discharges (of a red, bright red and bright colour); cf. Stol 2000, 200–201; Scurlock 2014a, 252; Steinert 2013, 6–8 and Steinert 2018 for discussion.

³⁴ Tablet 36: 94–96 of the *Diagnostic Handbook* offers a syllabic attestation of *maruštu* “trouble”, which makes a prediction about a woman’s foetus, depending on whether the woman “stepped” to the left/right “during (the period of) her trouble” (*ina libbi maruštīša*). This passage seems to confirm the euphemistic meaning “menstruation”, although it also suggests that according to the Babylonian healers, a woman could be pregnant and still menstruate, cf. Stol 2000, 26, 199; Scurlock 2014a, 247, 252; Steinert 2017a, 231–232.

³⁵ The usual logogram for *maruštu* is NÍG.GIG, see CAD M/1 315–317; AHw 617. Note however that Sumerian *níg-gig* can also mean “taboo; forbidden thing” (lit. “troublesome thing”), equated with Akkadian *ikkibu*. Sumerian GIG usually means “sick(ness)” and corresponds to Akkadian *muršu* “sickness”.

³⁶ CAD M/1 317 connects one attestation of *maruštu* with (w)aršu “dirty”: an omen text speaks of the left hand as the “*maruštu* hand” and contrasts it with the *qātu elletu* “pure (i. e. right) hand”. Nonetheless, despite its negative meaning, *maruštu* has to be differentiated from the notion of impurity/pollution, since other terms exist to denote the concept, see e. g. Feder 2016 and below section 3.

³⁷ [DIŠ MUNUS?] ša (NÍG).GIG-šá NU im-mar NÍG.GIG-šá i[m]-mar úIGI-20 SUHU[Š ...] / ⁴ša-šu-un-tú DIŠ-niš ta-mar-¹raq¹ ina ¹KAŠ¹ u A.GEŠTIN.N[A ...]; cf. Böck 2010: 110.

BCE texts may stand for the menses in a more limited sense, the contexts in which the most common term *dam sinništi* “a woman’s blood” occurred suggest that it is a general expression for female genital bleeding, encountered in various situations (from acute, abnormal haemorrhage outside or during pregnancy and birth to [absent] menses).

2.3. The Mesopotamian Conception of Female Bleeding

If one compares the Mesopotamian and Hippocratic texts dealing with female bleeding and menstruation, it is apparent that Babylonian medicine does not use the same theoretical model of the female body, even though their understanding of female bleeding seems to be context-dependent and situational, indicating medical knowledge based on careful observation and practical experience.

Although the focus on female bleeding in the gynaecological texts suggests that shedding of (menstrual) blood was seen as something typical for women, on the other hand, it is likewise important that nowhere in the texts, does one encounter a word for “menstruation” referring to the expectation of a regular, monthly occurrence of this phenomenon. A Sumerian incantation from the Ur-III period (ca. 2112–2004 BCE) against the sickness demon Samana (“the Red One”) is known as an exceptional text that may contain an expression for menstruation as a monthly phenomenon. In the opening lines of the incantation, the demon is described as a ferocious animal, with imagery alluding to Samana’s blood-thirstiness.³⁸ The text then turns to describe Samana’s victims in a sequence of parallel statements referring to different specific groups of persons and things, including the noxious effect of the demon on young maidens:

AO 11276: 10–15:

[í]d-dè ka tag-ba ba-ni-ib-de₆-a-gin₇
 dumu-ga-ke₄ ninda-guru₅-na ba-ni-de₆-a-gin₇
 ki-sikil-le GABA ITI.ITI-a-na ba-ni-de₆-a-gin₇
 guruš-e zag ŠÚ.ŠÚ-a-na ba-ni-de₆-a-gin₇
 nu-gig-e nam-nu-gig-ga-na ba-[x]-a-de₆-a-gin₇
 'nu¹-bar-re nam-nu-bar-ra-na ba-ni-de₆-a-gin₇

When he carries off the river in its *devouring* (force?),
 When he carries off the suckling child at his pap,
 When he carries off the young maiden in the ... *of her months*(?),
 When he carries off the young man in his *prime*(?),

³⁸ For the text, see Nougayrol 1949, 213–226 and pl. III–IV; Finkel 1998, 72–76 No. 1; as well as Stol 2012, 274; 2016: 438; Beck 2016: 35 for discussion. In the first lines, Samana is said to have “the mouth of a lion” (ka pirig-gá, l. 2), he is called the “savage dog of (the god) Enlil” (ur-huš^den-líl-lá, l. 6), the “neck-slicer of (the god) Enki” (gú-šur^den-ki-ka, l. 7), “he of (the goddess) Ninisina, with blood-streaming mouth” (ka múd du₈-du₈^dnin-si-in-na-ka, l. 8), “the dog of the gods, (the one) with gaping mouth” (ur ka-du₈-a dingir-re-ne, l. 9). For the illness *sāmānu* linked with the Samana demon, see Beck 2016 with previous literature; cf. CAD S III–II2.

When he carries off the nu-gig at her vocation (lit. whilst carrying out her nu-gig-function),
 When he carries off the nu-bar at her calling (lit. whilst carrying out her nu-bar-function),
 ...³⁹

The expression GABA ITI.ITI-a-na is usually understood as a designation for the menses and read as *du₈ iti-iti-a-na*, lit. “in the releasing of her months”.⁴⁰ However, this rendering is problematic in terms of Sumerian syntax and grammar, as the expression *du₈ iti-iti-a-na* reflects the word order of Akkadian genitive phrases (composed of an infinitive and a noun) rather than the expected, reversed word order of such phrases in Sumerian. Yet, the context of the whole passage in the Samana incantation, in which the reference to the young maiden occurs, is suggestive that the reading of the phrase as *du₈ iti-iti* may be correct and somehow connected with menstruation.⁴¹ However, it is possible that the expression refers to menarche in particular, because all other human victims of Samana mentioned in the crucial text passage seem to be persons in liminal situations.⁴² Thus, one could suggest that both of the enigmatic expressions GABA ITI.ITI and zag ŠÚ.ŠÚ in lines 12–13 may refer to bodily changes associated with puberty and reaching sexual maturity. Since textual variants from other Samana incantations speak of the demon affecting the young maiden (*ki-sikil*) in her “chest/breast” (*gaba*) or her “breastbone(?)”, the difficult phrase GABA ITI.ITI-a-na in AO 11276: 12 could likewise refer to the body part *gaba* “breast”, i. e. to the growing of the female breasts.⁴³ Furthermore, it is conspicuous that menarche is never explicitly mentioned in Mesopotamian texts in connection with girls and puberty, but that instead the growth of the breasts and genital hair is described as a sign of sexual ma-

³⁹ See Finkel 1998, 73–74, 89 fn. 31; Stol 2012, 274.

⁴⁰ Thus, Nougayrol (1949, 213) rendered the phrase as “son flux mensuel”; Stol (2016, 438) translates it literally “loosening her months”, while Finkel (1998, 74) suggests “in her courses(?)”. Beck (2016, 35) reads the signs differently as *gaba BIR.BIR-a-na* translating “(the girl suffered from him) at her breast dropping(?)”.

⁴¹ Stol (2012, 274) cites another text passage from the beginning of *Enki and Ninhursag* as alluding to the non-existence of menstruation in a primordial time, when humans were neither affected by illness nor old age (line 24 [26]): “No maiden, washing herself, spilled (the used) water in the city” (*ki-sikil a nu-tu₅-a-ni iri-a nu-mu-ni-ib-sig₁₀-ge*), cf. ETCSL text 1.1.1, Attinger 1984, 8–10: 26 with n. 14; 2011, 3 with n. 9–10. Whether the lacking need of maidens to wash themselves in the passage is indeed to be understood as an allusion to a time without menstruation, remains speculative.

⁴² The phrase *ka tag-ba*, which describes the river line 10 is likewise not immediately transparent. But following the meaning “to consume” for *ka tag* and the idea that the incantation passage describes liminal states, line 10 could allude to the contradictory nature of the river, namely that it absorbs and removes all uncleanness, but is nonetheless regarded as pure. The phrase *ka tag* “to touch with the mouth; to stretch out the mouth”, with the meaning “to consume; to eat” see also the Nanše Hymn A 73, ETCSL text 4.14.1 (<http://etcsl.orinst.ox.ac.uk>); Attinger 2013.

⁴³ Thus Beck (2016, 35–36) reads the passage as a hint that Samana affected the female breast, asking whether it possibly alludes to a transmission of the disease to infants via the breast milk. Cf. Finkel 1998: 77 No. 2 lines 8 and 14, 79–80 no. 3 lines 12–13, and Finkel 1998, 87–89, No. 7 lines 15–16: “(it seized) the young man by his thigh (*guruš háš-a-na = eṭlu ina šaprišu*), (it seized) the young woman by her breast bone(?) (*ki-sikil giš-gaba-na = ardata ina šitiq irtiša*).

turity in literary texts.⁴⁴ Moreover, in references to women's bodily processes, the months are usually associated with pregnancy and childbirth.⁴⁵ Could it be that in the Samana incantation the growth of the breasts in puberty was associated with the girl's future reproductive roles (the ability to produce of breast milk to feed a baby)?

One could further ask whether the likewise puzzling phrase *zag šú.šú* describing the young man may be connected to *zag šú/šu₄* "to brand", referring here to rituals associated with puberty.⁴⁶ However, up to now we know nothing about puberty rituals in Mesopotamia and also lack clear evidence that "branding" or similar body techniques were performed during such rituals.⁴⁷

What speaks in favour of interpreting GABA ITL.ITI and *zag šú.šú* with puberty is Samana's attraction to other persons associated with liminal states or undergoing transitions, which is underlined by the suckling child in line II which seems to be in the transitional period of being weaned.⁴⁸ Equally suggestive in this regard is the occurrence of the *nu-gig* (Akk. *qadištu*, lit. "the holy woman") and *nu-bar* (Akk. *kulmašitu*) women in this context, since these female professionals performed ritual functions in connection with another liminal period, namely childbirth and nursing.⁴⁹

⁴⁴ See e.g. the Balbale-song of Inanna (Dumuzi-Inanna C, Sefati 1998, 132–150 lines 39–45), in which the goddess Inanna speaks cheerfully about her growing breasts and pubic hair in anticipation of the coming pleasures of marriage and sexual intercourse. A euphemistic expression alluding to the physical changes of puberty including menarche may be encountered in a letter of the Babylonian king Kadašman-Enlil to Amenhotep III from Tell el-Amarna (EA 3: 7–8, Rainey 2015, 68–69, 1326–1327), describing his daughter as a grown-up woman (MUNUS *irtabi*) and nubile (*ša zikari* = lit. "[ready] for a man"), ready for marriage (*ana a-hu-za-ti*). Cf. also Vogel 2014, 83–84.

⁴⁵ See Stol 2000, 20–25; cf. the expression *iti nam-munus-a(k)* "month of womanhood" (i. e. giving birth) in the Sumerian myth *Enki and Ninhursag* lines 85, 105, 124, 127 (Attinger 1984, 14–21; cf. ETCSL text I.1.1); Steinert 2017b, 310 fn. 68.

⁴⁶ Beck (2016, 35) translates the phrase as "(the young man suffered from him) at his covered(?) shoulder, without offering an interpretation. It is noteworthy that in the third millennium BCE sources, slaves were sometimes branded with an ownership mark, and the expression *zag šú/šu₄* (also rendered *šuš*) "branded" occurs once in a lexical entry beside other age categories, see Foxvog 1995, 2–3. The lexical list ITT I, 1231 has *guruš* "(young) man; worker", *dumu-níta* "boy, male child", *dumu-níta zag-nu-šú* "unbranded boy", *géme* "female servant", *dumu-munus* "girl, female child", *dumu-munus zag-nu-šú* "unbranded girl", and *dumu-ga* "suckling infant". In other documents as well, boys can either be "branded" or not "branded" (Foxvog 1995, 3), indicating that this marking was done at a certain age. Most third millennium BCE evidence for this practice comes from the Old Akkadian period. See further Giessler and Pientka-Hinz 2011–2013; Ditchey 2016.

⁴⁷ One could speculate whether puberty rituals for boys could have involved non-permanent body marks (e.g. body paints or incisions understood as equivalent to menarche?). Note alternatively that *šú-šú* ("to sink down; to fall; to become dark") designates the tuning down of musical instruments or choral arrangements (Kilmer 1993–1997, 471), and one could ask whether *zag šú.šú* may be connected with the voice changes in boys during puberty.

⁴⁸ Cf. also Beck (2016, 35) reading *níg-guru₅-na* "(the infant suffered from him) at his cutting off" (instead of *ninda-guru₅-na* "his pap"), which could likewise refer to weaning.

⁴⁹ See Westenholz 1989, 250–260; Böck 2014, 30–32; cf. Stol 2016, 605–616; Steinkeller 2022.

The questionable expression GABA ITI.ITI in the Samana incantation highlights the general lack of explicit references to menarche and associated puberty rituals in Mesopotamian literature or daily-life documents.⁵⁰ Similarly, the medical texts never seem to touch on the topic of menarche. One may ask whether this silence has to do with the fact that menarche was dealt with and discussed primarily among women and is therefore not represented in the medical sources: this would reflect the male background of the texts and their authorship, all the more so because menarche did not necessitate male healers' intervention.⁵¹

Despite the dearth of theoretical discussion concerning menstruation and menopause in the medical texts, their preoccupation with abnormal phenomena (i. e. the absence or overabundance of genital discharges) shows indirectly that the medical practitioners must have had some awareness of the 'normal' processes of menstruation and menopause. For instance, we are informed from a letter discussing the impossibility of making a woman in her sixties pregnant with the help of medical plants that people (and medical specialists) in the Ancient Near East

The Sumerian terms *nu-gig* (lit. "one who (deals with) taboo, forbidden [matters]") and *nu-bar* (lit. "one who is set aside") as well as Akkadian *qadištu* "holy one" allude to their connection to specific deities (Inanna and the healing goddess Ninisina) as well as to their professional functions connected e. g. to liminal and potentially defiling realm of childbirth (associated with impure substances such as the parturient's blood). These terms could thus have a euphemistic aspect to them. The *qadištu* and *nu-gig* are sometimes related to purifications, ritual and musical performances, women's rites (forbidden to men), to delivery and nursing. In contrast to their usual role, the *nu-gig* and *nu-bar* are occasionally also associated with infanticide or abortion, e. g. in the *Curse over Agade* 241 (Cooper 1983; ETCSL text 2.1.5; Attinger 2007, 13 with fn. 122–123). It is not entirely clear whether this line refers to infanticide or abortion of premature foetuses, but the connection between these women and abortion seems to be alluded to in a first millennium BCE incantation to Šamaš (SpTU 3, 84 iii 9–12): "It is in your power, o Šamaš, to call the names of the foetuses (*kūbu*) of the *nadītu*, the *qadištu*, the *kulmašītu*, the *ištarītu* of Anu, the little ones who never knew their own names, who (never) saw the sunlight!"

⁵⁰ Glassner (2014) interprets the cultic rituals in honour of Inanna in the Iddin-Dagan Hymn A 35–87 as liminal rites of initiation. The text describes a procession of different persons (e. g. young girls and young warriors [*saĝ ur-saĝ*], featuring as novices?) and mentions ritual actions of gender reversal, cultic performers yielding weapons, inflicting wounds on themselves with swords and sprinkling blood on Inanna's throne. Wolkenstein and Kramer (1983, 95–99, 170–171) have read this and another cult ritual performed for Inanna described in Išme-Dagan Hymn AB as allusions to connections between the goddess and menstruation. Another hint to a ceremony marking sexual maturity may be found in Old Assyrian letters mentioning a ritual performed by the father of a "grown-up" girl, which involved placing her on the knees of the god Assur (Stol 2016, 63–65). Since in one of these references the girl became a priestess, this ritual could have signalled the girl's dedication to the deity (in analogy to marriage). For rituals of passage connected with puberty and adolescence in the ancient Greek world, and for textual sources on menarche and the adolescent girl, compare King 1983; 1998, 75–88 *passim*; Calame 2014; Lefèvre-Novaro and Rutherford 2014.

⁵¹ Cf. Dammery (2011) for a cross-cultural study on menarche, also discussing changes in girls' education in the 20th century, from informal, private transmission of female lore about menstruation from mother to daughter, to a more public education in schools and through female hygiene products advertisements.

were aware of the loss of reproductive powers in older women, even though texts never explicitly refer to the ceasing of the menses in this connection.⁵²

Moreover, healers apparently regarded the absence of the menses during pregnancy as normal because they describe bleeding during pregnancy as pathological and dangerous, posing a risk to the foetus' life. A Late Babylonian tablet with instructions for protective amulets and incantations against miscarriage indicates that Mesopotamian healers drew connections between the absence of the menses and pregnancy, using them for calculations for the timing of ritual actions and the woman's due date. A ruled-off comment inserted after a rubric speaks of the first one hundred days of pregnancy as a time period in which amulet charms for the woman should not be handled. This period was calculated starting from the moment when the women's last period was over:

AO 6473 (= TCL 6, 49) rev. 11–12 (Late Babylonian tablet from Uruk):

Amulet charm(s) for a pregnant woman (so that) she does not abort her foetus.

Oral lore, *well proven*, (according to) a copy (of a tablet) from Babylon.

From the day that her (menstrual) bandages are no longer used (lit. have passed by for her) until one hundred days you shall not *handle* the stones of the amulet charm(s) for the pregnant woman.⁵³

Different texts sometimes give conflicting opinions concerning the correlation between the (non)-occurrence of the menses and pregnancy. A Late Babylonian medical text draws the conclusion that a woman is not pregnant, if her menses are only slight and the blood is of a black colour:

BM 79061 obv. 9–12 (Late Babylonian tablet from Sippar[?]):

(If) the [blo]od in a woman's (menstrual) bandage is black and little, (she is) not pregnant. To enable her to get pregnant: you give her *murrukānu*-plant, *uqnātu*-wood, olive, *namru-qu*-plant to drink daily, [...].⁵⁴

In contrast, a passage in Tablet 36 of the *Diagnostic Handbook* (SA.GIG) may present a conflicting view. These lines make predictions concerning the outcome of a woman's pregnancy, and about the gender of the foetus, by interpreting the woman's physical appearance and habits, e. g. with which foot she habitually starts walking:

⁵² For the letter of Ramses II to Hattušili III discussing the Hittite king's request to send him a medical specialist who could prepare a fertility remedy for Matanazi, Hattušili's sister, see Edel 1976, 31–32, 67–75.

⁵³ See Thureau-Dangin 1921, 163, 166, 170: *tak-šir šá MUNUS.PEŠ₄-tú šà ŠÀ-šú NU ŠUB-e / šu-ut KA ana ŠU.2 È gaba-ri TIN.TIR^{ki} / TA u₄-mu šá ka₄-ni-šú DIB-iq-šú EN 1 me u₄-mu NA₄.MEŠ šá tak-šir šá MUNUS.PEŠ₄ ul DAB-bat*. For comments on this text passage, see also Stol 2000, 49; Abusch et al. 2020, 52 text 5.1 with notes on lines 6–7. For *kannu* as menstrual bandage see also below.

⁵⁴ MUNUS [*da*²]-*mi-šú ina <<šá>> ka₄-an-ni²-[šú] 'GI₆ i-š¹/la [e]-ri-¹tu₄ a-na šu-ri-²-[i¹] / ú[mu]-ur²-ru-ka-nu úZA.GÌN-tu₄ za-'it / nam-ru-qu u₄-mu-us-šú ta-¹šaq¹-qf-i[š ...].*

If during her ‘trouble’ a fertile woman steps to the right: she is pregnant with a ‘sleeping one’.
If (during her trouble) she steps to the left: she is pregnant with a female.

...

If (a fertile woman) steps to the right or left: she is pregnant with twins.⁵⁵

The first omen correlates a woman’s gait “during her trouble” (*ina libbi maruštīša*, i. e. her menses) with the presence of a “sleeping foetus”, possibly alluding to a belief that a woman could be pregnant for a long time without knowing it, because she would continue to menstruate. The underlying idea could have been that the “sleeping” foetus would not consume the woman’s menstrual blood (which continued to be discharged) and thus would not grow to mature size (and the woman’s belly would not become bigger). The next omen presents a second case, in which the woman “steps” to the left “during her trouble”, which connects the left foot with a female foetus (possibly, a female foetus was believed to develop in the left side of the womb and to be smaller than a male one, consuming less menstrual blood as nourishment). The third cited omen expands on the left-right symbolism: if a woman (regardless of whether she had her ‘trouble’) started walking using sometimes the right and sometimes the left foot, she was pregnant with twins. This passage from the *Diagnostic Handbook* shows that while Mesopotamian medical texts usually regard the absence of genital bleeding during pregnancy as the norm and its occurrence as abnormal, some healers may also have held the opinion that it was possible for a woman to menstruate while pregnant.

2.4. The “Two-Gendered” Model of Bleeding

Although the Mesopotamian medical texts do not spell out an explicit and systematic theoretical model of menstruation as in Hippocratic medicine, it is possible to trace textual hints that throw a light on a local conceptualisation of female genital bleeding. These hints suggest that Mesopotamian medicine compared female genital bleeding with similar processes in the male body. This “two-gendered” model of bleeding and correlation between processes in the male and female body can further be related with Babylonian mythological narratives about the creation of humankind.

Support for an integrative “two-gendered” model is found in incantations against bleeding, which were recited in conjunction with the application of drug-based treatments, and which were used interchangeably for women suffering from abnormal bleeding and men suffering from nosebleed. This suggests that both types of haemorrhage were seen as comparable phenomena. One such incantation against bleeding found in a first millennium BCE gynaecological text bears the rubric *ana MÚD KIR₄ u MÚD MUNUS KUD-si* “to stop nosebleed or a woman’s blood” (BM 40152 rev. iii 17 from Babylon).

⁵⁵ Tablet 36, lines 94, 95, 98, cf. Stol 2000, 199; Scurlock 2014a, 247, 252; Scurlock and Andersen 2005, 280 (with a differing interpretation); Steinert 2017a, 231–232.

Similar implications can be gleaned from another incantation used both against *nahšātu* (abnormal haemorrhage in pregnant women) and abundant nose-bleed.⁵⁶ This text contains an etiological explanation for bleeding in both sexes, which alludes to Babylonian creation myths, in particular to the *Atramhasis Epic*, where the mother-goddess Bēlet-ilī/Mami and the god of wisdom Ea create the first human being from clay and a mixture of blood and flesh from a slain god.⁵⁷ In the incantation, it is likewise the mother goddess Bēlet-ilī who is said to have “made” (*banû*) the blood for every human being that the gods created. Her actions have the unforeseen, negative consequence that human beings bleed, which is described with poetic metaphors drawing on the environment:

Incantation. “(For) all that the gods created of mankind,
[Bēlet-ilī] made their blood.
Ea [sa]w them and began to cry,
Tears came to Mami’s ch[ee]ks.
[... they ca]lled? all the gods,
[...] Ištar, Bēlet-ilī, Šamaš, Gula, (saying):
[‘Oh ...!’] From the young man’s nose and from the young woman’s vagina
His (i. e. their) blood continually drips and flows, his (i. e. their) tears continually drip and flow –
Li[ke] ‘a (waterlogged) meadow’ whose dike is not holding back (the water),
‘Like’ a fermenting vat whose stopper does not stop (the outflow),
Like a waterskin whose strap is not strong, whose drawstring is not trustworthy.
You are the god who *holds back* the *redness* (i. e. blood) of mankind!⁵⁸
Go up to heaven and bring down the seal of Anu and
Bind the man’s head!
Put a sealing on the disorder of her vagina (*eli lā dumuq ūrīša idâ šipassu*)!
May he put in a good word for her, whatever is *appropriate*!” Wording of an Enuru-incantation.

Spell for a woman who suffers from *nahšātu* (Ms. A). (Mss. B and C: Spell [for the case that] blood flows copiously from his [the patient’s] nose.)

⁵⁶ BAM 237 ii 1’–6’ (A) // BAM 386 (iv) i’¹ 1’–6’ (B) // SpTU 4, No. 129 vi (i’¹) 11’–27’ (C) (von Weier 1993, 32–40) // K. 3304+8785+9217 (unpubl.) i 1’–7’ (D). See Köcher 1971, xxvii; Collins 1999, 177–181; Schuster-Brandis 2008, 322–331, cf. Kette 62–62 *passim*. BAM 237 is a gynaecological compendium focussing on abnormal bleeding and other female discharges, while the other three manuscripts containing the spell are compendia with prescriptions for amulet necklaces. The incantation rubric in KAR 237 ii 7’ is: KA.INIM.MA MUN[US *ša na-aḫ-šā-a-te* GIG-at]; BAM 386 iv 7’ and SpTU 4, No. 129 i 28’ read instead: KA.INIM.(MA) MÚD ina KIR₄-šú šur-du-ma DU-ku “Recitation (for the case that) blood flows copiously from his (the patient’s) nose”.

⁵⁷ See Lambert and Millard 1969, 56–59; Foster 2005, 235–236 Tablet I 189–230. In the myth, it is actually the mother-goddess who mixes clay with the flesh and blood of the slain god and shapes the first human being, while Ea performs the necessary purifications.

⁵⁸ This line, preserved in SpTU 4, No. 129 i 23’ and in K. 3304+ i 3’, reads: *at-ta ilu* (DINGIR) *šā ta-ku-lu sa-’-mat amēlūti* (NAM.LÚ.U₁₈.LU). The verbal form of *kalû* “to hold back” used here is irregular, although the spelling of the Nineveh manuscript can be explained as Assyrian vowel harmony.

According to the incantation the reason why humans bleed is that the gods created them in this way – it is thus an unavoidable part of the human condition. However, the gods take pity on their creatures and send a deity (whose name is unfortunately lost in a gap) to bring down from heaven “the seal of Anu” (the god of heaven) and to seal off the body part from which the blood flows, which alludes to the common therapeutic practice of using haemostatic minerals to staunch excessive bleeding.⁵⁹ The incantation presents abnormal bleeding in the form of a (contrastive) parallelism between the male and female body, which could involve a subtle symbolism. Most strikingly, the text correlates male and female bleeding with two opposite orifices: men bleed from the nose, women from the vagina. It is noteworthy that female genital bleeding is not paralleled with a male genital discharge here, but a similar idea that nosebleed is an alternative route for menstrual blood is well known in Hippocratic medicine.⁶⁰

The “two-gender” model of bleeding presented in the incantation can be further related with the creation of mankind in the *Atramhasis Epic*, where we encounter a similar binary parallelism of the male and female body, which can be contrasted with the Biblical creation story (where Eve is created from Adam’s rib and women are thereby subordinated to men) and with the Greek myth of Pandora, which leads to a negative evaluation of the female gender.⁶¹ Interestingly, the *Atramhasis Epic* involves a two-step process of human creation: first a human model or prototype is created (from a mixture of divine and earthly ingredients), then the mother-goddess and Ea proceed to create gendered human beings from clay, which is the precondition for the sexual reproduction of the species:

They entered the House of Destiny,
The Prince Ea, (and) the wise Mama.
While the “Wombs” were assembled,
He was treading the clay before her.
She was reciting the incantation formula,
Ea, sitting before her, was making recite her.

After she had recited her spell,
She spat spittle on her clay.
She pinched off fourteen lumps,
Seven she put to the right,
Seven she put to the left,
Between them she laid the brick.

⁵⁹ For a discussion of some drugs used to stop gynaecological bleeding, see Steinert 2012; 2020, 57–60. For amulet stones against haemorrhage see also Schuster-Brandis 2008, 109–110, 140–141.

⁶⁰ See e. g. King 1998, 14–15, 51–52, 58–61, 68–74.

⁶¹ See King 1998, 23–27, highlighting that Pandora is created and given to men by the gods as a “beautiful evil” with the mind of a bitch, bringing many evils and diseases to mankind through the subsequent opening of her jar. For an alternative reading of the Genesis passage referring to the creation of Eve, see Hunziker-Rodewald 2020.

The reed-sliver of the canebrake, the cutter of the umbilical (cord), she had ready.
 While the wise and accomplished ones are assembled,
 The seven and seven "Wombs",
 Seven (of them) produced males,
 Seven (of them) produced females.
 While the Womb is creating destiny,
 They crown (*kullulu*) them in pairs,
 They crown them in pairs before her.
 Mami is drawing the designs for humankind.⁶²

This account of gendered creation entails a view of the sexes as complementary: one is not subordinated to the other, even though men and women are not identical physically and socially. This is to say that even though women were often subordinate to male authority in the typical roles they performed (as daughters, wives, sisters – after all, Mesopotamian societies in the second and first millennia BCE were patrilineal and patriarchal) and even though it is true that the male and female genders were associated with different prototypical social roles, the myth implies that both sexes are necessary and equally important for the perpetuation of the social order, and that male and female bodies are different, but parallel creations.

Other texts provide similar hints implying that women's reproductive roles were seen as parallel to prototypical male roles. Thus, an Akkadian birth incantation compares women shedding their own blood during birth ("lying in her blood") with warriors' being wounded in battle.⁶³ This juxtaposition implies that in giving birth women were perceived as fulfilling an equally necessary function to sustain and perpetuate society as did men on the battlefield. In both situations, the shedding of blood is tied to the imminent danger of death. Both the creation of human beings in the *Atramhasis Epic* and the comparison of women in childbirth and warriors ascribe to blood and bleeding a contradictory and ambivalent value: it is a crucial substance to create life, but the shedding of blood is closely tied up with death and mortality. A similar ambivalence seems to be ascribed to female bleeding in the gynaecological texts: sometimes it is deemed as normal, healthy and necessary, sometimes it is regarded as abnormal and dangerous.

⁶² See Lambert and Millard 1969, 60–63; Stol 2000, 113–114; Foster 2005, 270 iii 15–31. The text is a composite taken from the Old Babylonian version of Tablet I 249–254, continued by the Neo-Assyrian recension preserved on K. 3399+ obv. iii 3–14; for the Old Babylonian recension of the passage compare Tablet I 249–260.

⁶³ This comparison is encountered in incantations and other literary texts from the second and first millennium BCE, see Lambert 1969, 31: 33–50, esp. line 40; Foster 2005, 1006; Scurlock 2014a, 606; Hammons 2008, 101–106; Haul 2009, 206, 356–357 AO 6702 i 18–21 and 368–371 (commentary); Bergmann 2008, 31, 50–51. Joan Goodnick Westenholz (1996, 192–193) has pointed out that the metaphor positing identity between warriors and women in labor is based on the shared feature of shedding one's own blood. The same correspondence between giving birth and fighting is also found in Greek texts, see King 1998, 124.

2.5. Male vs. Female Genital Bleeding

Apart from the parallelism between women's vaginal bleeding and nosebleed in men encountered in medical incantations, a number of medical texts draw comparisons between male patients bleeding from the penis or anus and female genital bleeding. In prescriptions from rectal disease texts, a man passing blood from the anus can be compared with a woman suffering from unhealthy bleeding during pregnancy (*nahšātu*):

BAM 99 obv. 19–21 // BAM 100 rev. 2'–5' // BAM 161 vi 1–2:

If a man continuously passes (*nadû* Gtn-stem) blood from his anus like a woman (suffering) from *nahšātu*, and you have checked him that he does not have (symptoms) of rectal disease, then he suffers from 'overflowing of the bowels'. You wrap date-stone in red wool, smear (and) spatter (it) with oil, insert (it) into his anus.⁶⁴

Other medical texts use the intriguing euphemistic expression "to be struck by the weapon" (*kakka mahāšu*), which stands for abnormal bleeding from the genitals or from the anus and is used with reference to both men and women (in renal disease texts and gynaecological material):

BAM 235 obv. 4–5 (Neo-Assyrian tablet from Assur, ca. 7th cent. BCE):

If a woman 'is struck by the weapon', you crush blood of a par[tridge, ...], (and) *nuhurtu*-plant together, you give it to her to drink in beer, [...].⁶⁵

BAM 159 i 9–11, var. BAM 112 ii 17'–19'; BAM 182 obv. 6'; BAM 396 iv 3–5:

If a man discharges (*tabāku* D-stem) blood from his penis, he is 'struck by the weapon' like a woman – in order to cure him: you crush (together) chickpeas, *nuhurtu*-plant and horned alkali, leave it out overnight under the star(s), and in the morning he shall drink it on an empty stomach and he will get better.⁶⁶

BAM 99 obv. 27–29 // BAM 152 iii 8–12 // JRL 10, 74: 13–15:

If a man discharges (*tabāku* D-stem) blood from his anus, he is 'struck by the weapon' like a woman – in order to cure him: you crush together seed of *dadānu*-carob and the head of a carp, he shall drink (it) regularly in boiled wine on an empty stomach and he will get better.⁶⁷

⁶⁴ See Geller 2005, No. 35: 19–21: DIŠ NA ina DÚR-šú GIN₇ MUNUS ša na-ah-ša-te ŠUB. ŠUB-a ta-hi-is-su-ma / DÚR.GIG.KÁM NU TUK-ši ter-di-it ir-ri GIG NA₄ ZÚ.LUM.MA / ina SÍG.HÉ.MED NIGIN-mi Ì.GIŠ EREN SÙ ana DÚR-šú GAR-an. See also Geller 2005, No. 22 (AMT 43/1+ iii 14'–19' // BAM 99 rev. 42–51).

⁶⁵ See Scurlock 2014a, 585–587: [DIŠ] MUNUS gišTUKUL ma[h-š]a-at MÚD BURU₅. [ḪABRUD.DA^{mušen} ...] / [U]NU.LUH.HA DIŠ-niš SÚD ina KAŠ NAG-ši [...].

⁶⁶ See Geller 2005, No. 1; Parys 2014, 13: DIŠ NA ina GIŠ-šú MÚD ú-tab-ba-ka GIN₇ MUNUS gišTUKUL ma-hi-iš / ana [T]I-šú GÚ.GAL U^uNU.LUH.HA NAGA.SI DIŠ-niš SÚD / [ina] KAŠ ŠUB ina MUL₄ tuš-bat ina še-rim NU pa-tan NAG-ma TI.

⁶⁷ See Geller 2005, No. 35: 27–29: DIŠ NA ina DÚR-šú MÚD ú-[tab]-ba-ka GIN₇ MUNUS gišTUKUL ma-hi-iš ana TI-[šú] / NUMUN gišKIŠ₁₆.HAB [U]GU SUHUR^{ku₆} TĒŠ.BI SÚD ina GEŠTIN AL.ŠE[G₆].GÁ / [N]AG.MEŠ-ma TI-uť.

It has been suggested that “to be struck by the weapon” could be a euphemistic phrase for menstruation,⁶⁸ but this interpretation is weakened by the fact that gynaecological texts prescribe treatments for this condition to stop the discharge, something which is not expected if the haemorrhage was regular menstruation (which stops by itself).⁶⁹ Some rectal disease texts like BAM 99 use the term *naḥšātu* and the phrase “to be struck by the weapon” for making differential diagnoses.⁷⁰ Moreover, the expression “to be struck (or wounded) by a weapon” for abnormal, potentially life-threatening vaginal bleeding and its use in comparison with bleeding from the anus and penis reminds us of the similar association of women in labour and warriors encountered above: bleeding is again associated with bloodshed and wounds caused by weapons. The connection alludes to the physical constitution of humans grounded in mythological accounts: because human bodies were created from flesh and blood, they are also mortal, they are vulnerable to blood loss and thereby to death.⁷¹ In short, blood is an ambivalent substance in Mesopotamian thought, a sign of human life and a reminder of their mortality. This ambivalence may be of some relevance with regard to notions about the impurity of blood and genital discharges to be discussed in the following section.

3. Blood, Genital Discharges and Impurity

3.1. *The Ambivalence of Genital Discharges in Cross-Cultural Perspective*

In earlier anthropological and historical accounts of menstruation, the belief in the impurity of menstrual blood and other genital discharges was regarded as

⁶⁸ E. g. Stol 2016, 438 with n. 12 considers both “to be struck by the weapon” and *naḥšātu* as potential terms for menstruation. In contrast, apodoses for women in physiognomic omens forecasting that a certain body feature meant that the woman would “die through a weapon” probably refer to a violent death (murder) and not to dying from haemorrhage, see e. g. Böck 2000, 155: 46.

⁶⁹ The same applies to the term *naḥšātu* which is used as a disease term (with *marāṣu* “to be sick; to suffer from”) and explained as abnormal bleeding during pregnancy in the commentary SpTU 1, No. 39: 7’–8’ (Hunger 1976, 48; Wee 2017, 240; 2019, 323–325, 328). See already Biggs 2006, 42–43 with n. 29. In contrast to Wee (2019, 325), I understand the comments on *sagû* and *ša naḥšātu marṣat* in SpTU 1, 39: 6’–7’ and 7’–8’ as two unrelated commentary entries and not as continuous comments, since these two expressions are drawn from different entries/omens in the base texts that are several lines apart from each other. I. e., in my view, *sagû* and *naḥšātu* are not synonymous, although both refer to a haemorrhage of some sort.

⁷⁰ Cf. BAM 99: 1, 19–20, 25, 27, 30, 42 (Geller 2005, No. 35), differentiating cases in which the man suffers from rectal bleeding due to rectal disease or from other conditions, such as internal illness or “overflowing of the bowels”. Both verbs *naḍû* and *tabāku* in the examples cited above are used with regard to emitting various body substances (faeces, urine, blood, sweat etc.).

⁷¹ Cf. the “blood test” in the *Cuthean Legend* about the king Naram-Sin, in which the king’s soldiers test whether their foreign enemies from the mountain lands are humans or demons by pricking their skin with a lance and a pin, to see if they bleed (Goodnick Westenholz 1997, 314–315; Foster 2005, 351–352: 63–71 [first millennium BCE version]).

quasi universal and associated with the concept *taboo* (as something forbidden).⁷² The anthropologist Mary Douglas defined impurity as something out of place, and argued that the perception of bodily discharges as polluting and dangerous has to do with their liminality.⁷³ Influenced by Emile Durkheim's and Marcel Mauss' understanding of the body as a social body, Douglas argued that the main function of impurity prohibitions (such as in the Biblical book of Leviticus) is to preserve the "wholeness" of society: the body's boundaries represent society's boundaries; thus, body fluids leaving the body threaten both the body's and society's boundaries. Douglas connected beliefs in the impurity of menstrual blood with the social structures in hierarchical and patriarchal societies, where men are viewed as superior, but where women have power to threaten this superiority.⁷⁴ However, recent anthropological and historical studies have elucidated that the notion of menstrual blood and other genital discharges as polluting or dangerous is neither universal (in some societies, attitudes towards menstruation are positive or mixed), nor can menstrual taboos such as the seclusion of menstruants be regarded solely as an oppression of women.⁷⁵ Anna Meigs has criticized Douglas' definition of pollution, suggesting a more concrete explanation, namely that the physical disgust and fear felt towards others' bodily emissions derive from a perception of them as subject to decay and thus as potentially contaminated. Meigs also emphasizes that bodily emissions are often conceived as ambivalent and connected both to decay/death and to growth/creation. She also points out that body emissions of others are often viewed as polluting only when they threaten to access one's own body and when access is not desired. Moreover, bodily emissions such as menstrual blood may be regarded as polluting in some contexts, but as positive in others, as can be gleaned from the use of human body substances as therapeutic agents in some societies. Which body emissions are regarded as polluting differs from culture to culture.⁷⁶ Other studies have also shown that the female oppres-

⁷² See e. g. Philip 2006, 8–12; Malul 2002, 379–380.

⁷³ Douglas 1966, 41–57; 1975, 47–59. A similar definition of pollution as derived from body emissions and from their ambivalent status at the body's margins is given in Leach's discussion of taboo (Leach 1972, 49–50).

⁷⁴ See also Eilberg-Schwartz (1990, 178–182) arguing that the impurity of female genital discharges in the priestly regulations in Leviticus was viewed as more severe than that of male semen because of men's superior status over women, and thus reflect male rule and control of female fertility in Biblical society.

⁷⁵ See e. g. Buckley and Gottlieb 1988, 3–53, esp. 6–8, who argue that the Polynesian term *taboo* (lit. "something that is marked thoroughly") is not inherently negative and can both mean "holiness" and "impurity" depending on the context. See further Sridhar 2019, who emphasizes the ambivalent notions concerning menstruation, as can be found for example in Hindu cultures, ranging between a notion of imbalance or ritual impurity, austerity and self-purification on the one hand, and associations with sacredness, female deities, temples and festivals on the other, celebrating menstruation as an aspect of female reproductive powers (see esp. *ibid.*, 2–72).

⁷⁶ Meigs 1978, 304–318, esp. 308–310. She compared pollution beliefs and practices in Papua New Guinea and North America and encountered many general similarities. See below for the use of female body substances in Mesopotamian healing rituals. Cf. also Malul 2002, 386–387

sion model and Douglas' model of the social symbolism of (menstrual) pollution are too simplistic, because they are based on a holistic view of society focusing primarily on a dominant male perspective.⁷⁷

In order to put the discussion of Mesopotamian evaluations of menstrual blood and other genital discharges in perspective, a comparative look at notions of menstrual impurity in other ancient cultures of the Near East and Mediterranean can make us aware of culture-specific nuances in the concepts of pollution and debates in neighbouring fields of research. For instance, differing conclusions concerning the impurity of menstrual blood have been advanced for ancient Greece. In his study entitled *Miasma*, Robert Parker concludes that the Greeks do not seem to have feared menstrual blood as impure and argued that prohibitions against temple visits for persons polluted by menstrual blood (or other genital discharges) appear only in late sacred laws of non-Greek cults.⁷⁸ Helen King draws attention to the association of menstrual blood with sacrificial blood from animals as a symbol of social order (female bleeding was seen as necessary like the shedding of sacrificial blood), but also as a symbol for the contrast between female and male spheres (which explains the exclusion of women from bloody sacrifices, warfare, butchery), namely that women bleed, but men shed blood.⁷⁹

But there are differing opinions on the matter. Thus, Heinrich von Staden argues instead that the Greeks regarded women as "exceptionally susceptible to impurity and dirt".⁸⁰ He interprets the prohibitions in the Greek sacred laws and the negative statements of Greek authors about the genital discharges of women as a continuous tradition stipulating the impurity of menstrual blood, but notes that such views could have been influenced by Oriental religions. Nonetheless, the sensitivity of Greek and Roman writers (including Aristotle) concerning menstrual blood reflects its ambivalent evaluation in this culture as both polluting and purifying, harmful and beneficial.⁸¹ Parturition was rated as most polluting, while menstrual blood and intercourse was less seriously defiling.⁸²

for contaminating and non-contaminating body substances in the Old Testament, pointing to a specific focus on discharges from the genitals as polluting, while other body substances (such as urine, faeces, sweat, blood from wounds etc.) were viewed as largely un-contaminating. However, cross-cultural comparisons show that the Biblical differentiation of pure and impure body emissions is not universal, but culture-specific, see e. g. Meigs 1978, 304–310.

⁷⁷ E. g. Buckley and Gottlieb 1988, 3–53; Delaney 1988, 76–77.

⁷⁸ Parker 1983, 100–103.

⁷⁹ King 1998, 88–98.

⁸⁰ Von Staden 1992, 13–15. Von Staden also notes (*ibid.*, 9–13, 15–20) that Hippocratic medicine applied therapies with excrement (and other malodorous or strong substances such as asphalt, sulphur) especially for women's conditions, suggesting that such uses were motivated by the idea that "pollutants can be powerfully defiling, but their power can also be turned against impurity itself" (*ibid.*, 16).

⁸¹ Von Staden 1992, 14 with notes 49, 52–55. For the dangerous, magical and curative powers of menstrual blood in Greco-Roman authors, cf. also below.

⁸² Von Staden 1992, 14, referring to sacred law texts stating varying periods of exclusion from

It is also notable that words for ritual purification such as *kartharsis* were used (for example, in the Hippocratic corpus) to refer to menstruation, which implies that menstrual blood could have potentially polluting properties.⁸³ Another hint to the susceptibility of female bodies to impurity is the high frequency in the Hippocratic texts of washes and purifying treatments in gynaecological treatments, as well as a higher reluctance to physical contact with women's genitals,⁸⁴ a pattern which is not, however, encountered to the same degree in Mesopotamian medical texts, where healers seem to have had no reluctance whatsoever to apply vaginal suppositories (a prominent therapy in gynaecological texts) or to come into physical contact with women suffering from haemorrhage or other vaginal discharges.

Especially Biblical and later Rabbinic notions concerning the impurity of menstrual blood and other genital discharges have received much attention from Assyriologists who have argued that Mesopotamian texts contain similar beliefs, and also interpreted elements in cuneiform sources on the basis of Biblical accounts.⁸⁵ However, this approach is problematical, because the beliefs of each culture should be understood and interpreted within their own context, religious, ideological and social frameworks. Nonetheless, similarities as well as differences between different Ancient Near Eastern cultures vis-à-vis genital discharges can be informative as to the unique elements of each culture's belief system. In contrast to the sparsity and vagueness of Mesopotamian sources, the impurity of menstrual blood and other discharges from the womb is a prominent topic in priestly writings in the Bible and in later Rabbinic sources, but no explanation is given as to the reasons for the impurity.⁸⁶ It is noteworthy that outside the priestly litera-

temples for pollution through contact with a parturient (three days), giving birth (up to 21 days and up to 40 days after a miscarriage), menstruation (six to nine days), and sexual intercourse (one day).

⁸³ Von Staden 1992, 15.

⁸⁴ Von Staden 1992, 15.

⁸⁵ For a critical review of Biblical and Assyriological interpretations, see Philip 2006, 2–18; Couto-Ferreira and Garcia-Ventura 2013. For Rabbinic Judaism see Fonrobert 1995 and 2000.

⁸⁶ Biblical scholars have argued that the impurity of genital discharges including semen and menstrual blood is that they were connected with death (or loss of life-force), or that the pollution beliefs reflect the ambivalence of these discharges (associated simultaneously with life and death), see e. g. Milgrom 1993; Wenham 1983. Cf. Eilberg-Schwartz 1990, 178–182. Feder (2022, 207–224) interprets notions of impurity related to genital discharges and sexual intercourse as stemming from male fears of losing one's masculinity or virility, but also from fears of potential contagion or contamination through another's body fluids. Feder (2022, 218–224) links the negative Biblical views of menstrual blood as polluting and dangerous with “a repugnance toward the emissions themselves”, arguing that embodied experience and strong emotions reinforced cultural judgments and discourses, which reflect misogynistic tendencies. It is noteworthy that Rabbinic texts (Mishna, Midrash and Talmud) link menstruation and menstrual taboos with Eve's disobedience, which led not only to the expulsion of Adam and Eve from Eden, but was further connected with the introduction of death (expressed as the ‘spilling’ of Adam's blood’ by Eve) into human life. For this act, Eve was punished by God with menstruation and commandments related to it (especially the prohibition of intercourse during the menses), see Fonrobert 2000, and 1999, 30–33 for a discussion of relevant texts.

ture (e. g. in Gen 18: 1–15 and 31: 35), menstruation is clearly described as something unique to women, as “the way of women” and “the way it is for women”. Here, menstruation is connected to female fertility and the ability to conceive, while menopause (lack of menstruation) is regarded as a sign of old age and of the loss of female reproductive powers, a connection that is never expressed explicitly in Mesopotamian medical texts.⁸⁷ The priestly legislation of impurities in Leviticus 15 defines menstruation alongside long-term abnormal discharge from the womb as two impure female genital discharges (Lev 15: 19–24 and 25–30), which are described in chiasmic parallelism to the impurity of male genital discharges: normal semen and long-term abnormal discharge (Lev 15: 2b–15 and 16–18). Both menstrual blood and semen have a defiling effect in sexual intercourse. The impurity of menstruation defiles the woman, her bed/seat and anyone touching them, as well as a man who has intercourse with a menstruant.⁸⁸ The priestly legislation shows an intricate differentiation between menstruation (*niddah*), long-term abnormal discharge from the womb (*zawah*) and the discharges associated with childbirth (Lev 12). While the impurity of menstruation lasts seven days,⁸⁹ the impurity of the parturient is compared with the former (Lev 12: 2, 5), but the set period of impurity is longer and divided into two stages, which points to the more severe character of the impurity.⁹⁰ The length of the parturient’s period of impurity depends on the sex of the newborn (40 [= 7 + 33]) days for the birth of a son, and 80 (= 14 + 66) days for the birth of a daughter).⁹¹ Abnormal female genital discharge (Lev 15: 25–30) is defined as a flow of blood from the womb which lasts many days and occurs “not at the time of her menstruation”. The woman suffering

⁸⁷ Philip 2006, 19–25. The Hebrew word for menstruation *niddah* may be connected with Akkadian *nadû* in the meanings “to pour out; to discharge body fluids; to excrete”, although some scholars have linked *niddah* with a root NDD meaning “to distance oneself”, and with the menstruant’s separation from the sacred domain/community or her seclusion within the home (Philip 2006, 32–33; cf. Malul 2002, 381; Feder 2022, 218–219). The word develops the abstract meaning “impurity” (Philip 2006, 33–37).

⁸⁸ Normal ejaculation of semen is to some extent parallel to menstruation, with the difference that a man who has ejaculated semen is impure until the evening, he has to wash his body and launder his clothes; if he had intercourse with a woman, the latter was also impure until evening and had to wash herself. Vice versa, the period of impurity for a man who had sex with a menstruating woman is the same as for the woman herself. Philip (2006, 57–60) comments on the novel prohibition of menstrual sex in Lev 18: 19 and 20: 18, 21, where menstrual sex results in a threat of punishment and defiles not only the persons, but also the land. For a recent analysis of the legislation in Leviticus 15 see also Feder 2013, 159–164; cf. further Feder 2022, 175–239.

⁸⁹ Touching menstrual blood or objects that were in contact with it likewise resulted in impurity for the effected person and necessitated washing and laundering of clothes.

⁹⁰ This can also be seen in the fact that Lev 12 mentions explicitly that the parturient woman should stay in seclusion at home during her period of impurity and should not come close to the holy. Similar to a man or woman cured from abnormal genital discharge, the parturient also had to bring a sacrifice (a purification offering and a burnt offering as thanksgiving for successful birth) to the priest, when the set period of impurity had passed, see Philip 2006, 119–122; Feder 2022, 229–230.

⁹¹ See Philip 2006, 113–119 for discussion.

from it was seen as impure like a menstruant as long as this condition lasted, but she became pure again after seven days, if the discharge stopped (i. e. menstruation served as the model for defining abnormal female discharge).⁹²

Among the Hittite ritual texts there are a number of rituals for pregnant women, parturients and the newborn, which had protective and purificatory functions, but the impurity of the woman's postpartum discharges is never mentioned in these texts, and the Hittite sources do not preserve any discussion of menstrual impurity.⁹³ The Hittite rituals for mother and child had multiple stages displaying characteristics of rituals of passage. Ritual actions for the mother involving, for example, special offerings began already in the latter stages of pregnancy. From the seventh month onward, the pregnant woman and her husband had to abstain from sexual intercourse, the woman had to observe special dietary prohibitions.⁹⁴ During this period, the husband had to be washed when he was with his wife, he had to use a separate table and eating utensils, and his wife was forbidden to eat at the same time as her husband, which seems to indicate that the focus of these regulations was rather to protect the pregnant woman from negative influences and impurity.⁹⁵ The rituals and offerings preparing the woman and the birth equipment (especially the birth-stool) for the delivery represented the central element of purification, which aimed at safeguarding a successful and easy delivery and at avoiding disaster by removing any possible source of evil.⁹⁶ Immediately after birth, rituals were performed to remove evil from the newborn and to purify the mother (especially through washing). On the seventh day following delivery, offerings were performed on behalf of the newborn, and a second ritual of purification and integration was held for the child in the third or fourth month after birth,

⁹² The removal of an abnormal male genital discharge sets the same period of seven days to assure recovery, but in addition the man had to wash and launder his clothes (Lev 15:13).

⁹³ See Beckman 1983; Pringle 1983; Mouton 2008. Only one reference in an unrelated ritual from Kizzuwatna, expresses the view that absorbing different kinds of blood including blood from a woman's body is defiling to a consecrated person (priest, priestess), but it is not entirely clear whether this refers to menstrual blood in particular (Strauss 2006, 232–233).

⁹⁴ For a discussion of the birth rituals as rituals of passage, see Mouton 2008, 25–81. The rituals stemming from the Hittite milieu suggest that delivery usually took place in the “inner chamber” of the woman's home, into which she entered in the eighth month to stay there until after birth (Pringle 1983, 132). Some passages suggest separation of the pregnant woman from the community prior to birth, and Beckman (1983, 133, 141, 148, 154 Text K) understood one of the ritual texts as indicative that the pregnant woman was separated from her family and delivered outside her home. Cf. Mouton 2008, 55–70, 83–94, 109–122 and Pringle 1983, 138 on Texts H and K, which may display varying customs with regard to the place of delivery.

⁹⁵ See Beckman 1983, 134–135, Mouton 2008, 25–33, 39–70, 116; cf. Pringle 1983, 138–139.

⁹⁶ Beckman 1983, 138–139, 140–143; Mouton 2008, 118 rev. 9, 25, 28. See also Beckman 1983, 86–123; Strauss 2006, 284–309; Mouton 2008, 83–94, 95–109; Pringle 1983, 138–140 for the antenatal rituals Texts H and the *Ritual of Papanikri*, the latter of which was performed to remove the impurity caused by damage to the birth-stool prior to delivery. See also Beckman 1983, 32–41 Text B for ritual actions during delivery.

depending on whether the baby was a boy or a girl.⁹⁷ The Hittite birth rituals seem to focus on bringing about and preserving purity as a 'sacred' or wholesome state for mother and child rather than focusing on the parturient (and the blood of birth) as a source of pollution, which is an idea more prominently found in the Biblical and Mesopotamian texts (see below).

Recently, Yitzhaq Feder has reanalysed the semantics of terms for purity and impurity in Ancient Near Eastern textual sources and assessed the conceptualisation of pollution in the Hebrew Bible, as well as in Mesopotamian and Hittite texts.⁹⁸ Influenced by modern psychology and anthropological research, he sees the basis of pollution beliefs in embodied cognition and grounded in concrete experiences. Feder points to the universal cognitive response of disgust and fear caused by (potential) contact with sources of contamination, and argues for a close link between concepts of defilement/pollution and contagion (both involve a belief in a "transfer of some essence" from a source to a target through physical contact).⁹⁹ In his study of the term "pollution" (*tum'ah*) in the Hebrew Bible, Feder identifies three different schemas of embodied experience and models of pollutions that are expressed by this term, which he defines as UNCLEANLINESS, INFECTION and STAIN OF TRANSGRESSION (and which appear to be of graded severity). Forms of pollution connected to the experience of UNCLEANLINESS (e.g. normal genital discharges such as menstrual blood or semen) require that the polluted person or object be distanced from the divine sphere; this type of pollution, which elicits the core emotion of disgust, could be removed by passage of time and washing. In contrast, forms of pollution related to the INFECTION model (e.g. abnormal genital discharges, leprosy, corpse impurity) were regarded as dangerous and associated with fear of contagion. This form of pollution required more complex purification procedures including passage of time, washing, sacrifice and separation or banishment from the community. The severest form of pollution designated as STAIN OF TRANSGRESSION is caused by violations of cultural norms such as murder and sexual misconduct, which provoked divine punishment. This pollution defiles both the person and the land and cannot be removed by ritual cleansing or sacrifice, but demands expiation or compensation.¹⁰⁰ Although this three-fold model is certainly applicable to most of the forms of pollution dealt with in Leviticus, Feder points out that the menstruating woman and the parturient do not fit into one of the three schemas alone, because these rules contain elements and characteristics from all three pollution types: passage of time (UN-

⁹⁷ Cf. Beckman 1983, 134–137, 142–143, 157–158, 160–161 Text K; Mouton 2008, 116–117 obv. 27–36, 119 rev. 38–44; see also Beckman 1983, 42–59 Text C for post-natal rites for the baby; cf. Pringle 1983, 133, 135, 139.

⁹⁸ Feder 2013, 2014, 2016, 2022. For Hittite concepts of purity and impurity see also Mouton 2012; 2014.

⁹⁹ Feder 2013, 155–159; 2016, 100; 2022, 207–224.

¹⁰⁰ Feder 2013, 163–165; 2016, 101; 2022, 53 Table 2.3, 186 Table 9.1 *passim*.

CLEANLINESS), seclusion and sacrifice (INFECTION, in the case of the parturient) and STAIN OF TRANSGRESSION (strict prohibition of sexual intercourse). If one regards the prohibition of menstrual intercourse in Lev 18 as a later innovation, the legislation concerning the menstruant in Lev 15 could be reconciled with the UNCLEANLINESS model. But the case of the parturient's impurity in Lev 12 remains problematic, because the quality of her pollution is closer to the UNCLEANLINESS schema than to the INFECTION model, which focuses on fear of contagion and is closely associated with diseased persons.

3.2. Genital Discharges and Impurity in Mesopotamian Textual Sources

In his survey of Akkadian terms of impurity, Feder emphasises that Akkadian does not seem to have a term for pollution comparable to Hebrew *ṭum'ah*, which involves a "metaphysical force".¹⁰¹ He suggests that the adjectives *lu'û* and (w)*aršu/maršu* "dirty, unclean" and *lā ellu* "not pure" appear in the context of UNCLEANLINESS, often with regard to defiled persons or objects disqualified for contact with the sacred domain/cult, while *lu'û* is also found in the context of INFECTION causing illness.¹⁰² Feder also discusses the Sumerian term *uzug*, related to Akkadian *musukku* (including their etymology) referring to a category of unclean person, but he did not go into detail with regard to the texts and contexts, in which these terms are used in references to women and genital discharges,¹⁰³ which will be discussed here. According to Feder, the common denominator of persons referred to with the terms *uzug/musukku* is that they were "banished or isolated from communal activity", because there are texts which refer to (city) "gates of the impure" and to "impure" persons having to leave the city.¹⁰⁴ He further sees

¹⁰¹ Feder 2016, 103.

¹⁰² Feder 2016, 103–105, 111; 2022, 221. For recent discussions of Mesopotamian concepts of purity, see further Sallaberger 2006–2008; 2011; Ambos 2012; Couto-Ferreira and Garcia 2013, 516–517; Feder 2014. These studies emphasize the range of meanings connected to Sumerian and Akkadian words for "pure", ranging from "clean" (e.g. garments, bodies), refined (e.g. metals), "shining" (e.g. metals, stones), "pure, holy" (said of persons and objects fit for cultic use), "free" (of guilt/claims), "proper" (behaviour) and show the connection of the purity terms with positively valued, concrete qualities of objects (especially brilliance). K. van der Toorn (1985, 27–37; 1989) explained Mesopotamian concepts of ritual purity as based on an analogy between social and religious etiquettes: one had to conform to divine standards of proper appearance (e.g. washing, clean clothes, avoiding specific strong odours from foods), if one wanted to approach the gods. On the other hand, the Mesopotamian concept of impurity is often described in terms of pollution, as something physical that enters the body from outside (e.g. through physical contact, ingestion) and can be removed through physical action (e.g. rituals of washing, or transmission), see Ambos 2012, 92. On a religious level, anything that angered the gods or one's personal deities could be expressed through the language of impurity, which includes a broad range of actions and causes (from wrongdoing to being the victim of defiling sorcery), but van der Toorn (1985, 29–37) singles out especially the areas physical integrity and cleanliness, sexuality, and food observances as sources of impurity.

¹⁰³ Cf. Feder 2016, 105–107, 112–116.

¹⁰⁴ Feder 2016, 105. Cf. below.

all three schemas represented in textual sources dealing with *uzug/musukku*: he relates the feminine form *musukkatu* “impure woman” to both menstruants and parturients and to the schema of UNCLEANLINESS, arguing that these women had to be secluded, were prohibited from having sexual intercourse and defiled other persons or objects, making them unfit for contact with the sacred realm.¹⁰⁵

Re-reading Mesopotamian textual references concerning the impurity associated with female genital discharges, I will argue that we find an ambivalence that is similar to the ancient Greek attitudes. At the same time, the aspect of pollution has in my view been overemphasised in the Assyriological literature, stemming from an uncritical transfer of Biblical notions of menstrual pollution unto the Mesopotamian texts. Thus, Karel van der Toorn argued in his study on women’s lives in Babylonia and Israel that in Mesopotamia, just like in the Biblical world, a menstruating woman was regarded as impure, because menstrual blood “filled the gods with repugnance”, assuming on the basis of one single omen text that menstruating women were excluded from cultic activities.¹⁰⁶ Furthermore, van der Toorn and others have claimed that in Mesopotamia, women were separated from their husbands or families after birth or during their menses, while Marten Stol assumed on the basis of textual hints and specific terms that both menstruating women and parturients were impure and had to undergo purifications to become free from their pollution.¹⁰⁷

A cautious reading of the texts claimed as evidence for pollution beliefs concerning menstrual blood shows that in many cases, at best very implicit or vague textual references have to some extent been over-interpreted as expressing notions of menstrual impurity and taboos.¹⁰⁸ For instance, late third-millennium BCE administrative texts indicating that women were excused from work in temple

¹⁰⁵ Feder 2016, 106–107, following earlier authors such as van der Toorn 1994 and Stol 2000; 2016.

¹⁰⁶ Van der Toorn 1994, 54; for the text in question (KAR 423: 15) see below; Biggs 2006, 43; Sallaberger 2011, 22; Guichard and Marti 2013, 74–75, 85; Stol 2016, 439. The predominant view in Assyriology and Biblical studies is that the whole Near East has essentially the same view or *Weltanschauung* with regard to menstrual blood, see e. g. van der Toorn 1985, 31; 1994, 53–54, 91–92; Malul 2002, 379–394.

¹⁰⁷ Stol 2000, 205–206; Stol 2016, 438–441. Stol based his assumption that menstruants and parturients took a ritual purificatory bath mainly on a few references to a city gate in Nippur called the “Gate of the Impure (Women)”, which was associated with a seasonal ritual involving “impure women”. According to Stol, the vicinity to the Euphrates River could imply that public ritual washing took place there, but this interpretation remains speculative. For the terms implying impurity, cf. below.

¹⁰⁸ Cf. Frandsen 2007, discussing ancient Egyptian sources on menstruation (*ḥšmn*, lit. “purification”) and documents (so-called “absentee lists” from New Kingdom Deir el-Medina) indicating that workers building the royal necropolis at Luxor could be absent from work during their wife’s or daughters’ menses, while there are also hints to the menstruating women leaving the necropolis during their periods. At the same time, Frandsen (2007: 99–105) warns that there does not seem to be a clear concept of pollution connected with the menses in Egypt, and suggests that these absences of men and women aimed at avoiding their contact with the sacred sphere of

households for six days per month have been read as evidence that they had to observe rules of menstrual seclusion (even though male workers also get a number of days per month off).¹⁰⁹ Similarly, it has been argued from a few Mari letters mentioning e.g. a “female servant of the king has become pure (*illilma*) and has entered the palace” that women living in the royal palace had to leave for special quarters during their menses.¹¹⁰ These interpretations have lately been scrutinised and heavily criticised.¹¹¹

It seems that the Mesopotamian sources, when read in a nuanced way, yield an ambivalent attitude towards the genital discharges in both sexes. The textual evidence suggests in my view that the notion of impurity is found predominantly in connection with parturient women and postpartum discharges on the one hand, and in contexts where the ritual purity of men was at stake (i.e. such notions are linked to the rules for approaching the gods and visiting a temple, making offerings). Similar regulations concerning ritual/cultic purity were also of importance to the king, since as the head of state he was in a particularly vulnerable position vis-à-vis the gods and often (as in the case of the Assyrian king) had to fulfil priestly/cultic tasks.

A few omen apodoses reflect the notion that female genital discharges, in particular abnormal ones, made the person suffering from them ritually impure and that such an impurity could be transferred to other persons by physical contact. Thus, a cultic offering is rendered impure by a woman suffering from abnormal bleeding during pregnancy (*nahšātu*) according to an omen apodosis from the extipicy series *Bārūtu*:

KAR 423 i 11, 14–15:

If blood drips on the *isru* on the right, an impure person/man has touched the offering.

If blood drips on the *isru* on the right and left, a woman who suffers from *nahšātu* has performed an impure offering.¹¹²

It has to be emphasised that omens such as these describe hypothetically observable features of the exta, providing insight into the analogical reasoning typical

the tomb, which symbolises regeneration and had to be kept apart from the mundane realm of human reproduction. See further Janssen 2021.

¹⁰⁹ Cf. Lafont 1987, No. 45; cf. Civil 1983, 52; Waetzoldt 1988, 36–37; Couto-Ferreira and Garcia-Ventura 2013, 520–521 for a differing interpretation of the figures of monthly leave for men and women in Ur III administrative texts.

¹¹⁰ See Ziegler 1999, 18 n. 103, 232–233 No. 59: 4–5. The source of the impurity is not stated however. Other Mari letters that have been interpreted in support of the temporal menstrual seclusion of royal women including the queen do not even mention impurity, but only a temporal absence or change between different domiciles (see ARM 26/1, III no. 13, with 105 n. 59; cf. Durand 2008, 561–563).

¹¹¹ See Heimpel 2003, 183; Couto-Ferreira and Garcia-Ventura 2013, 519–522 for a re-analysis.

¹¹² [šumma(BE) ina isri] imitta(15) damu(MÚD) usallih lā(NU) ellu(KÙ) nīqa(SÍSKUR) ilput(TAG) ... šumma(BE) ina isri imitta(15) u šumēla(150) damu(MÚD) usallih/sinništu(MUNUS) ša nahšātu maršat(GIG-at) nīqa(SISKUR) lu'ā iridi(UŠ). The text is a Neo-Assyrian excerpt from the *Bārūtu*-series, see Heeßel 2012, 35, 43, 53 comments to col. i 8–15.

for Mesopotamian divination rather than into daily life situations. The two omens run parallel, drawing a link between blood dripping on a specific part of the exta (*isru*) and either an impure person who has touched an offering or a woman suffering from *nahšātu* who performs a defiled offering. The parallelism of both apodotes and the content of the protasis (blood dripping on something) imply that the contamination of the offerings is caused in both instances by their contact with a person's abnormal genital discharge. However, it is hard to conclude from the statement in KAR 423: 15 that menstruating women were in general forbidden to participate in religious or cultic activities, since this text only speaks of abnormal genital discharges.¹¹³

A second text often cited as proof for menstrual impurity is § 7 of the Middle Assyrian Palace Decrees, which contains a regulation stating that "when the time of making cultic offerings (*nīqu*) draws near, a woman of the palace who is not (sexually) 'approachable' (*ša lā qarābšani*) shall not enter into the presence of the king."¹¹⁴ It is possible however that this prohibition, which alludes to avoiding physical and sexual contact of the king with menstruating palace women, only concerned times, when the king actively served in the cult and thus aimed at safeguarding his cultic purity. Such prohibitions indicate a concern that impurities should be kept away from the king and the divine sphere in order to avoid divine anger, but it is difficult to draw conclusions about the rules of everyday life concerning menstruation from this text.¹¹⁵

Before we continue discussing the evidence for the impurity of female blood, it is worthwhile to point out that according to Mesopotamian medical and ritual texts, abnormal genital discharges in men and involuntary seminal emissions likewise rendered the affected man impure and caused his gods to turn away in anger, as can be gleaned from rituals and prescriptions which aimed at removing the impurity stemming from such emissions.¹¹⁶

¹¹³ Although women officiating as high priestesses of deities are generally not attested after the Old Babylonian period (except for places in the periphery such as Emar), there are several other female religious offices or professions in Mesopotamian texts (such as the *qadištu* and *nugig*) who were involved in the cult of certain deities, including participation in cult rituals, see Sallaberger and Huber Vulliet 2003–2005, §§ 3.2–3.4, 5.1, 5.7; Goodnick Westenholz 1989, 253–255, 257–260.

¹¹⁴ Roth 1997, 200, with Weidner 1954–1956, 276; cf. van der Toorn 1994, 52.

¹¹⁵ See already Philip 2006, 6–7, arguing that this rule was probably recorded because it differed from everyday practice.

¹¹⁶ The sex omens in *Šumma ālu* contain in fact only few, but occasionally contradicting statements concerning impurity arising from heterosexual practices. Two omens in Tablet 104 describe male impurity caused by female sexual action: if the woman touched either the man's or her own genitals, the man will be impure and not find divine acceptance (CT 39, 45: 28, 36). Another omen stipulates that excessive ejaculations cause male ritual impurity (CT 39, 45: 27). The preceding omen (CT 39, 45: 26) reverses the negative evaluation for the case that a man ejaculates in his dream by predicting financial gain for him, cf. Guinan 1997, 466–467, 473; 2002, 188 n. 14 for discussion. Underlining the significance of impure ejaculations even in one's dreams, one omen in a section in *Šumma ālu* Tablet 96 on actions to ensure one's purity when going to a tem-

BAM 319 obv. 1–7 // BM 54650: 1–6:

If a man's limbs are "poured out" like (those of) a sick person, [...], his feet and his ... are weak, he talks (about doing something), but does not achieve (anything), his sexual desire is taken away, he is always angry, his semen flows like one who has illicit sex with a woman, either with his urine or spontaneously: that man is impure (*ul ēl*), god and goddess have turned away from him, his word does not find acceptance.¹¹⁷

The symptom description includes a number of bodily and psychological symptoms, but the involuntary or spontaneous discharge of "semen" is the crucial symptom responsible for the man's impurity. Although the discharge is designated as semen and compared with semen ejaculated during sexual intercourse, the text has to be concerned with abnormal genital discharge, since the patient is said to discharge it also during urination, and is deprived of his potency/sexual appetite. The immediate consequence of the patient's sexual impurity is the anger of his personal deities, but the symptoms are attributed to sorcery performed against the patient by a woman, in front of the divine couple Ištar and Dumuzi (lines 9–14: figurines representing him have been deposited in a grave).¹¹⁸

A more explicit comparison of impure male "seminal" emissions with female genital discharges is found in a group of prescriptions for sexual impurity and potency problems. The text is concerned with "abnormal genital discharges" called *suhsu/su'su*, which occur outside sexual intercourse in both men and women.¹¹⁹ Also in this text, the discharges are attributed to sorcery:

STT 280 obv. i 22–25 // BM 68033 rev. 9'–10' // LKA 144 rev. 23–28 // BAM 207 obv. 1'–4' // BAM 320 obv. 7'–9':

If a man is bewitched so that his body is 'poured out', his semen flows whether he is walking, standing or lying down or when he is urinating, like (those of) a woman his *seminal emis-*

ple (CT 39, 38 rev. 13 // CT 39, 36: 109) states that if a man (before going to the temple) has dreamt of intercourse with a woman, but did not have an emission, he is regarded as "pure" (*ēb*). The final part of the apodosis has been interpreted in varying ways: CAD I/J 315a assumes a restricting precaution (he may walk around in the temple, but he should not pass before/face the deity; see also CAD P 158 sub 4b). Sallaberger (2011, 29–30 with van der Toorn 1989, 342) proposes a more positive reading (his omens are reliable and he is not blocked/cut off from the deity). A similar association of impurity through touching the genitals as in *Šumma ālu* Tablet 104 is expressed in a Nineveh fragment with rituals against nightmares and erotic dreams (K. 2993 rev. 12', CDLI no. P238229 courtesy H. Stadhouders). It asserts that if a man dreams of having intercourse with a woman and stretches out his hand to touch her vagina, he is "impure" (NU KÜ).

¹¹⁷ Farber 1977, 227, 237 lines 1–8, Abusch and Schwemer 2016, 250 No. 8.29.

¹¹⁸ The following complex ritual addressed at Ištar aims at releasing and purifying the patient. The text concludes with prescriptions "when his semen should drip (again)" (Farber 1977, 233–234 lines 84'–88', 89'–93'; Abusch and Schwemer 2016, 258–259 lines 127–132), which are likewise administered to achieve purity. The recipes involve drinking iron in beer, kissing patina, touching bitumen or bronze, and a leather pouch filled with ingredients to be worn around the neck.

¹¹⁹ Abusch and Schwemer 2011, 104 Text 2.5 sub 3: 1–7; cf. Farber 1977, 234 "Anhang". For the variant prescription recommended for this case in STT 280 i 26–27 and BM 68033 rev. 11', see Zisa 2021, 389–390 text K prescription 3 (lines 24–29, with further parallels). The word *suhsu/su'su* is also used to refer to normal semen and can mean "genitals, crotch", see Reynolds 2010, 301–302 and commentary on BM 55484+ v 22'; George 2013, 119 No. 19: 28.

sions are impure (*kīma sinništi su'ussu lā ēl*). That man's semen has been buried with a dead person in the earth. To cure him: root of *baltu*-thorn, root of *ašāgu*-thorn, *annuhara*-alum, alum, iron, pomegranate rind, 'salpetre dust' – these seven drugs you pound [together]. He drinks (it) in grape juice on an empty stomach and he will recover.

In their recent edition of this text, Tzvi Abusch and Daniel Schwemer translate the crucial passage referring to *suhsu/su'su* "his private parts are impure like those of a (menstruating) woman", preferring to relate the impurity to the genital organs as source of the discharge rather than to the discharge itself. In another medical text, the word *su'su/suhsu* is found together with the more common *rihūtu* "semen" and stands for abnormal genital discharge in men and women looking similar to semen.¹²⁰ It is at least conspicuous that there is no direct reference to female blood in the passage, and if a comparison with a menstruating woman was intended it is made again purely by allusion, in a euphemistic way.¹²¹ It is also possible that the Mesopotamian healers attributed an ambivalent status to "female semen": while a few textual hints suggest that women could also produce "semen" or "fluids" during intercourse and contribute to procreation, other medical texts mention female "semen"/"fluids" only as an abnormal, unhealthy discharge, to which notions of impurity may have been attached, similar to another female discharge, *nahšātu* (see above). However, it is surprising that the gynaecological texts treating such discharges never state that the affected women were impure.

3.3. Designations of Women Associated With Genital Bleeding Indicating Impurity

Especially in Mesopotamian medical/ritual texts and omen literature, we sometimes find designations characterising women that point to notions of impurity in association with female genital bleeding. A look at the contexts in which these words occur shows that this impurity has an ambivalent power: on the one hand it is believed to be polluting, on the other hand it can be used to ward off and dispel evil powers and illness.

3.3.1. *urruštu* "Dirty Woman"

The word *urruštu* is the feminine form of *urrušu* "dirty, filthy thing or person" and connected with the verb *urrušu* "to make dirty" (D-stem of [*w*] *arāšu* "to be[come]

¹²⁰ *Suhsu/su'su* is encountered as abnormal genital discharge in both sexes in BAM 205: 40'–41' // (Biggs 1967, 68; Scurlock and Andersen 2005, 89 sub 4.3). See also Steinert 2017b, 310–311 for discussion.

¹²¹ Note that abnormal haemorrhage from the penis is attributed to illicit sexual intercourse (and diagnosed as the "Hand of Šamaš") in the *Diagnostic Handbook* (Tablet 14: 109, see Scurlock 2014a, 123, 131; see also the commentary SpTU 1, No. 36: 23–24, Hunger 1976, 44), but there is no direct statement that the discharge caused the patient to be impure in this passage (the prognosis is even worse – death).

dirty”) and the adjective *aršu* “dirty”.¹²² In the texts, in which it occurs, *urruštu* is found in parallelism with *musukkatu* and *harištu*, terms that refer to women in the period after delivery (cf. below), which suggests a link of their impurity with postpartum discharges/blood. However, it is widely assumed that *urruštu* refers to a menstruating woman as well.¹²³ All textual references to the *urruštu* occur in a similar context in incantations against diseases, some of which were associated with notions of uncleanness and with ideas of infection through contact with impure substances. In all the incantations, the treated condition is to be countered by pure water fetched by divine beings (the daughters of Anu) from pristine places, i. e. water which has not been polluted by contact with an *urruštu* or a *musukkatu*. In all cases, these passages describe the *urruštu* washing herself, her hands or her clothes in a river, or stepping into water. The motif is found in an incantation against *bušānu*, an infectious disease prominently affecting children, in particular the mouth, nose and throat, characterized by a bad smell (the word literally means “stench”):

The *bušānu*-disease gives the impression of a lion ..., its grip is strong! Like a wolf, it takes hold of the mouth, like a tiger it takes hold of the gums. ... Whom shall I send to the heavenly daughters of Anu? May they lift up their flasks of silver and their phials of gold! May they draw water from the Ulai river (and) from the wide sea, in which no dirty woman has washed her hands, in which no *musukkatu* has washed her clothes! (*ašar urrušti lā imsû qātiša [musu]kkatu lā imsû lubārīšu*) ...¹²⁴

A variant formula occurs in an incantation against the *sagallu*-disease affecting the lower extremities, associated with infected lesions on the feet, which Mesopotamian healers attributed to contact with dirty bath water (e. g. having stepped into someone’s dirty bath water):

... (List of diseases), [they have descended from the stars of heaven], they made feverish all the young men, they made feverish [the baby on the shoul]der of the nursemaid. Whom

¹²² CAD U/W 248; AHw 1464, 1497. The word *urrušu* occurs in reference to persons and garments, and in contrast to radiant things such as jewels and heavenly bodies.

¹²³ See e. g. CAD U/W 248a; Stol 2000, 205; Böck 2013, 40; Feder 2016, 104; differently van der Toorn 1985, 31 (regarding *harištu* and *urruštu* as terms for the parturient).

¹²⁴ SpTU I, No. 44: 69–74 (Hunger 1976, 51–55) // BAM 543 iii 65’–iv 2 // BAM 28 rev. 3–11 // BAM 29 rev. 18–32 // BAM 533 rev. 76–89 // AMT 54/3 ii 1–7, for an edition of the incantation see Farber 1990, 313–316; Collins 1999, 191–195; Heeßel 2010, 55–57; Scurlock 2014a, 390–398. Surprisingly, J. Scurlock translates *urruštu* as “a woman who has recently had intercourse” (literally “ploughed [with a seeder plow]”), deriving the word from the verb *erēšu* “to cultivate (by means of a seeder plough)”. Nonetheless, the parallelism with *musukkatu* “a woman with a flow of blood”, *harištu* “women in childbed” and their lexical associations with bleeding make this derivation unlikely in my view. Stol (2000, 205) speculates on the basis of this text passage that a menstruating woman (*urruštu*) only had to wash her hands, while a postpartum woman (*musukkatu*) had to take a bath to become pure again, but the variants of this passage in other incantations contradict this clear differentiation (see below with n. 126).

should I send to the heavenly daughters of Anu? May they lift up ... their pots of pure lapis lazuli, may they draw water from the Ayabba, the wide sea, water from the Tigris (and) water from the Euphrates, over which no dirty woman has bent down, [in whi]ch no *musuk[katu]* has washed herself! (*ša urrušti lā uširru u musukk[atu lā imsū ina libb]i*) ...¹²⁵

An incantation for eye ailments replaces *urruštu* with *harištu* “women in child-bed”, a word which refers to a woman during and after delivery, in particular to a postpartum woman.¹²⁶ Because of the occurrence of *harištu* instead of *urruštu* in the incantations just cited, the *Chicago Assyrian Dictionary* proposed to differentiate between two lemmas, *harištu* “woman in confinement” and “menstruating woman”, the latter of which was explained as a free variant of *arištu* (*aruštu*) “dirty” and thus derived from (*w*)*arāšu* “to be dirty” instead of *harāšu* “to be in labour, confinement”. But this differentiation of meanings and etymologies seems unjustified, since the textual attestations link the *harištu* with delivery and the postpartum period.¹²⁷ Whether the terms *urruštu* and *harištu* were also used by extension to include the menstruating woman (because both had a flow of blood) is not clear.

Another intriguing passage mentioning the *urruštu* is found in an incantation against the baby-snatching demon Lamaštu, daughter of the god of heaven Anu, who was banned from the divine community and consequently denied a regular temple cult because she wanted to eat the flesh and blood of humans, thereby breaking the basic rule of mutual support between the gods and humans. Lamaštu became a demonic femme fatale with appalling features, roaming the wilderness and streets, always looking for human victims, especially babies whom, it was believed, she strangled or poisoned with her breast milk. She is also associated with fevers, infectious diseases and dirt.¹²⁸ The passage of interest here is part of an incantation from a ritual series solely concerned with countering Lamaštu.¹²⁹ Here,

¹²⁵ CT 23, 2–3 (= K. 2473): 1–8 // AMT 31/2: 2–8, see Farber 1990, 311–312.

¹²⁶ The text was included in Tablet 1 of the series on eye ailments and is preserved in BAM 510 ii 35–iii 5 // BAM 513 iii 1'–6' // BAM 524 iii 10' (Farber 1990, 312–313; Collins 1999, 210–213; Attia 2015, 16; Geller and Panayotov 2020, 84–85 lines 98'–107', especially 103'–104'). The relevant passage reads: “(May they draw) water (from the Ayabba, the wide sea) into which no woman in childbed has descended, in which no *musuk[katu]* has washed her hands!” (*mē ... ša harištu lā ūridu ana libbi musuk[katu] lā imsū qātīša*).

¹²⁷ CAD H 103–104; cf. AHW 3324, 26a (“Frau im Kindbett”); CDA² 107, 108. A lexical passage explaining “the bandage of the *harištu*” with the “bandage of an impure/dirty woman” (cf. below), but it cannot be assumed on the basis of such explanations alone that *harištu* also meant “menstruant”. The equation with *mušēniqtu* “nursing woman; wet nurse” in *Malku* = *šarru* I 126 (Hrůša 2010, 38, 310) and medical texts concerned with postpartum problems such as retention of the postpartum blood (designated as *dam harišti*) focus on the period after birth, although some literary texts use *harištu* in the meaning “woman in labour”, see e.g. the *Lamentation over the Destruction of Ur* 221, connecting the labouring mother (*ha-ri-iš-ta ama*) with “lying in one’s blood” (ETCSL c.2.2.2).

¹²⁸ See Farber 2007. The link between dirt/impurity and contagion in Lamaštu incantations lends further support to Feder’s pollution schema INFECTION (cf. above).

¹²⁹ For the first millennium BCE Lamaštu series and texts see Farber 2014; for studies of Lamaštu, see e.g. Wiggermann 2000; Götting 2009.

the clothing of the “dirty woman” is mentioned in a litany of places and entities, by which Lamaštu is conjured, i. e. she is forced to leave by invoking the magic power of these entities:

Spell: “Fierce is the Daughter of Anu who wreaks havoc among the babies.
 She is fierce, of divine (power), terrifying. From the highest mountains she comes down,
 with
 teeth (like) donkey’s teeth, a face (like) the face of a lion.
 The small of her back is speckled like a leopard,
 her cheek is yellowish pale like ochre.
 When Asalluhi saw her, the Daughter of Anu from heaven,
 He made all her strength fade away, using an ingenious spell of his own:
 Be gone to the mountain which you love,
 Take deer and ibexes—
 Take all the mothers of (their) young!
 I will make for you a canvas boat, will make you board it.
 I will let get on board with you four dogs, two white (and) two black.
 I will make you sail over the Ulai river, the ocean, the wide sea.
 I will bind your feet to a free-standing tamarisk and a lone reed-stalk.
 I will surround you with a magic circle of flour. You are conjured! May you be bound by the spell!
 I have conjured you by the river ordeal, city gate (of) justice and main square.
 I have conjured you by the Šar’ur, the powerful weapon, the attendant of the Lord-of-the-lands.
 I have conjured you – may you be bound by the spell!
 ...
 I have conjured you (lit. put you under oath) by the power (lit. oath) of the *angry* heart and (anger)-darkened head,
 by the power of well and ditch, by the power of garbage pile and its dust,
 by the power of the clothing of a dirty woman (*nīš lubārē ša urrušti*), by the power of the road and those who travel on it.
 Evil one! By the power of Heaven be conjured, by the power of Earth be conjured!
 By the power of the great gods be conjured! By the power of the great gods of heaven and earth be conjured!”
 Recitation against Lamaštu.¹³⁰

The entities by which Lamaštu is conjured (lit. put under oath) in the latter part of the spell, are endowed with symbolic as well as magic power, and some of them have strong negative or ambivalent connotations alluding to impurity, marginality and liminality, befitting Lamaštu’s status and character, such as the street, well and ditch, garbage pile and dust. The dominant notion connected with Lamaštu is indeed that of defilement and dirt, and of marginal places associated with impurities. Thus, Lamaštu is euphemistically called “pure one” (OA₂: 1) or described as having dirty hands (Lam. II 106; RA: 3), taking her resting place in the (dung-

¹³⁰ The translation given here largely follows Farber 2014, 103, 169 Lam. II 34–60, with minor adjustments.

filled) tracks of domestic animals (Lam. I 38–39), and she is designated as “the sister of the gods of the streets” (Lam. I 2, one of her seven names).¹³¹ In this passage, the clothing of the “dirty woman” is listed among these marginal and liminal places and functions as a powerful object related to Lamaštu’s character, which can be used to dispel the evil demon.¹³² The impurity attached to the *urruštu*, *harištu* and the *musukkatu* best fits the schema of UNCLEANLINESS as described by Feder (see above): these women are associated with dirty and liminal places and with washing; their defilement is linked to their bodies and clothes and it pollutes water, without explicitly mentioning blood or genital discharge as the source of the impurity. On the other hand, the stained clothes of the *urruštu* are credited with the power to fight off disease-bringing, dirty, evil demons who infect human bodies.

3.1.2. (m)usukkatu

The third term that we encountered above in the medical incantations beside *urruštu* and *harištu* is (m)*usukkatu* (Sumerian munus-ú-zúg/zug₄), the feminine form of *musukku*, related to Sumerian *uzug*, which is usually rendered as “ritually impure; (person) under (temporary) taboo”.¹³³ Possibly, *musukku/musukkatu* are connected with the Akkadian verb *masāku* “to be ugly/bad/rotten” (in the D-stem “to spoil; to make disgusting”) and provided the basis for Sumerian *uzug*, although it is usually assumed that *musukku/musukkatu* are loanwords from *uzug*.¹³⁴ The *Chicago Assyrian Dictionary* explains the meaning of *musukkatu* as “a woman in the period after she has given birth ... when she is in a tabooed state until she has taken a ritual bath; it may also refer to a menstruating woman”.¹³⁵ This view has been widely accepted in the Assyriological literature.¹³⁶ According to this view, both parturients and menstruants were regarded as impure because of their genital discharges, had to be isolated or secluded for a certain period of time, during which it was forbidden for their husbands to have sexual intercourse with them; and they all had to take a ritual bath to become pure again.¹³⁷

¹³¹ See Farber 2014, 280–281, 172–173, 298–299, 148–149, 144–145.

¹³² See also Steinert 2016, 247–248 for discussion.

¹³³ CAD M/2 239–240 “unclean man or woman; person under a (temporary) taboo”; AHw 678b “kultisch Unreiner”; CDA² 220 “ritually unclean; impure person”; cf. Behrens 1978, 150–159; van der Toorn 1985, 31; 1989, 348; 1994, 52, 92; Stol 2000, 205–206; 2016, 439–440; Feder 2016, 105–108 for discussion.

¹³⁴ See Feder 2016, 112–116 for discussion and further literature. Note also a related adjective *musukkāu* referring to a poor-quality silver. For a discussion of *uzug* see also Emilianov 2013.

¹³⁵ CAD M/2 240a.

¹³⁶ See especially van der Toorn 1985, 31; 1989, 348–351; 1994, 52, 92; Stol 2000, 205–206; 2016, 439–440; Guichard and Marti 2013, 85; Feder 2016, 105–108. Van der Toorn (1985, 31) believes that *musukkatu* in addition also referred to “one who has not yet washed after sexual intercourse”, but does not cite specific evidence for this assumption.

¹³⁷ Compare Feder 2022, 219, 230–235 on the inconclusive evidence from the Biblical texts

In his discussion of Mesopotamian pollution concepts, Feder observed that the terms *uzug* and *musukku/musukkatu* occur in different contexts, which can be linked with all three of the underlying models of pollution identified by Feder in Leviticus (UNCLEANLINESS, INFECTION, STAIN OF TRANSGRESSION), depending on the described situation. Sumerian and Akkadian mythological texts provide instances, in which this impurity affects male or female deities as a consequence of having been engaged in tabooed forms of sexual intercourse. For instance, in the Sumerian myth *Enlil and Ninlil*, the god Enlil becomes *uzug* after raping the young virgin goddess Ninlil. As a consequence, he is punished by the fellow gods who banish him from the divine counsel and his city Nippur, and later on after he had repeated sexual relations with Ninlil, by sending him down to the netherworld.¹³⁸ Similarly, in the Babylonian myth *Nergal and Ereškigal*, the netherworld goddess Ereškigal becomes *musukku* after engaging in sexual relations with the god Nergal. Ereškigal explicitly says that her state of impurity, resulting from her intercourse with Nergal, prevents her from exercising her divine office of providing judgement in her domain, the netherworld.¹³⁹ In both myths, the intercourse resulting in impurity constitutes a breach of norms, because it takes place without a proper marriage ritual and the consent of the parents.¹⁴⁰ Because of the moral transgression implied in the narratives, Feder connects *uzug/musukku* in these two texts with the STAIN OF TRANSGRESSION model of pollution.¹⁴¹ Of special interest is further that the state of impurity is connected to the realm of sexuality, caused by sexual actions transgressing a moral boundary.

A second context in which *uzug/musukku* occurs in Sumerian and Akkadian texts is in association with disease. In these instances, humans (male or female persons) designated by this term are mentioned together with other groups of persons suffering from specific illnesses or bodily defects, who are temporarily banned from the city.¹⁴² The clearest reference is found in building inscriptions

and archaeological sources for the menstruant's seclusion within the home or for her segregation from the community (beyond her banishment from the cultic sphere), although the practice of ritual washing following a period of impurity arising from genital discharges may have been common.

¹³⁸ ETCSL c. 1.2.1; Behrens 1978, 150–159 for discussion of lines 59–60.

¹³⁹ See Ponchia and Luukko 2013, 19–20 lines 313–314, 329–330; for discussion Hutter 1985, 94–100; Feder 2016, 106.

¹⁴⁰ At the end of the Middle Babylonian version from Tell el-Amarna (rev. 40–42), Ereškigal asks Nergal to become her husband, so that they could rule over the netherworld together, which probably removed her impurity (Ponchia and Luukko 2013, xcvi).

¹⁴¹ Feder 2016, 106.

¹⁴² In this vein, the connection of a city gate in Nippur with the *uzug/musukku/musukkatu* may allude to such ritual practices or processions associated with the temporary removal of “im-pure” persons from the city, for instance at times of religious festivals. The *abul musukkāti* “Gate of the impure women” at Nippur is known from an Old Babylonian cuneiform tablet with a map of the city, and from a later text explaining different ritual events at Nippur throughout the year, where it is said that a procession of *musukkātu*-women “went out” of the city on the 19th day of the month Ayyaru, because Ninurta had entered his temple “in anger” (OECT II, 69+70 i 23 §7,

of Gudea of Lagaš (ca. 2122–2102 BCE), in connection with his re-building of the temple of the god Ningirsu, where he emphasises that he removed any kind of social conflict, injustice and violence (e. g. arguing, beating) as well as sources of impurities and impure persons from the city of Girsu:

The ruler cleansed the city, he let (purifying) fire go over it.
He banned from the city all persons (ritually) unclean (ú-sug-ga), *the fearsome one* (ní-ĝál), (and) the lú-GI.AN.¹⁴³

The terms ní-ĝál and lú-GI.AN are usually understood as referring to a “monstrous-looking person” and to a man suffering from a venereal disease or abnormal discharge.¹⁴⁴ Removing any source of hazard, evil, sickness, impurity was apparently regarded as a main precondition for successfully restoring the divine abode and inviting the deity to reside there.¹⁴⁵ In a similar passage, the sequence of banned persons includes women as well:

(Gudea) cleansed the city, he let (purifying) fire go over it.
He set up the brick mould, determined the (first) brick by means of an oracle.
Persons (ritually) unclean (lú-uzug₅-ga) who *cause fear* (ní-ĝál), the lú si ĝi₄-a *with a shrivelled penis*(?) (ĝiš bír), (and) women doing work he banned from the city.
No woman would carry the basket; only the best warriors would work for him.¹⁴⁶

Hermann Behrens suggested that the expression “women doing work” (iv3 munus KIN[kīĝ₂] du₁₁-ga) referred to postpartum women who have recently given birth, while others assumed that it referred to the impurity of sexual in-

see George 1990, 158; cf. George 1992, 154: 19' and 448; Reynolds 1996, 91; for the city gate see also Stol 1998–2001, 540; 2004, 671–672; Gibson, Hansen and Zettler 1998–2001, 560 fig. 10). This gate is instead called *abul usukki* “gate of the impure” in a hymn to Ninurta (KAR 119 rev. 14–15, Lambert 1960, 120; Steinert 2014, 152–155). The name *ká-gal ú-zúg* = *abul mukukkātīm* is also attested lexically (Civil et al. 1971 [= MSL 13], 228 Kagal Tablet I 4; cf. also 66: 4 OB Proto-Kagal). Stol (2016, 400–441 with fn. 38) believes that the name of this city gate located close to the Euphrates stems from its customary use as a place of ritual washing, because a few documents mention a prebend (*bala-gub-ba*) associated with a copper vessel (^{ur}udu₅šen) in connection with the gate. Cf. also above n. 107.

¹⁴³ Gudea Cylinder A xiii 12–15, Edzard 1997, 77; ETCSL t.2.1.7 lines 341–344, with lines 323–339. See also Cylinder B xviii 1, Edzard 1997, 98, ETCSL 2.1.7 line 1221 (in the context of the whole passage xvii 12–xviii 11), speaking of impure persons (ú-si₉) having to sleep at the margin of the city.

¹⁴⁴ Behrens 1978, 155; Averbeck 1987, 637 with fn. 253; Feder 2016, 106–107. Edzard (1997, 77) translates ní-ĝál as “unpleasant to look at” but does not offer a rendering for the other term.

¹⁴⁵ See Feder 2016, 106–107 arguing that these were measures to assure public safety by removing all “sources of danger”. As Behrens (1978, 156–157) pointed out it is unclear how long the temporary removal of these groups of persons lasted, i. e. for the whole period of temple building or only during the necessary purification rituals.

¹⁴⁶ Gudea Statue B iii 12–iv 6, Edzard 1997, 32. The reading ĝiš bír for NITA.UD and interpretation “with a shrivelled penis” was proposed by Attinger 1993, 558 § 598, example 324. Goodnick Westenholz (2009, 88–89) surmised that the group of persons mentioned here are castrates who were likewise regarded as impure because of their bodily deformity and therefore had to leave the city.

tercourse.¹⁴⁷ None of these interpretations can be proven. The following parallel line (iv 5) speaks of the interdiction for women “to carry the basket”, i. e. to take an active part in the temple building work, which is to be done only by the best young warriors (saĝ ur-saĝ), which would invite the interpretation that the exclusion of women was due to the possibility of defilement caused by their menstrual blood.¹⁴⁸ Or was it simply believed that women should not perform the physically strenuous work of carrying building material? It is likewise possible to read the prohibitions concerning women in a similar vein as Gudea’s ban on all activities causing social stress and exploitation (e. g. tax collecting, oath-taking).¹⁴⁹ It is also noteworthy that the female munus ú-zúg is not used in the Gudea passage above, which is usually taken to be specifically connected to menstruants and parturients.

The masculine form *musukku* also occurs in association with another person suffering a disease in a first-millennium BCE ritual text used for protection and release from sorcery, divine wrath and sickness, in which *musukku* is mentioned beside a person with a severe skin disease (*saharšubbû*, possibly leprosy), in a context suggesting that such persons could be used as recipients of the patient’s misfortune and evil.¹⁵⁰

The question that remains to be discussed is whether munus ú-zúg/*musukkatu* refers to both parturients and menstruants (as has been generally assumed), and what can be elicited from the texts concerning the impurity of these women. The medical incantations discussed above, in which the *musukkatu* was mentioned together with the *harištu* “woman in childbed”, and in which these women were associated with washing and polluting the wash water, seemed to suggest that *musukkatu* designated primarily a postpartum woman who was perceived to be in a liminal state of impurity (due to her genital discharges during and after birth).¹⁵¹

¹⁴⁷ Behrens 1978, 156. The latter opinion is advanced in Averbeck (1987, 637–638 fn. 253) following suggestions by T. Jacobsen and S. Cohen (based on Leviticus 15 and the on Akkadian expression “the work of a woman” [*šipir sinništi*] referring to sexual intercourse, CAD S 290 sub 2’).

¹⁴⁸ The text also mentions that burials and wailing were not performed (Statue B v 1–4, Edzard 1997, 32).

¹⁴⁹ Cf. also Steible 1991, 161, translating “die Frauen, die (Bau-)Arbeit leisteten”.

¹⁵⁰ See BMS 12: 97 (Ebeling 1953, 82–83; Mayer 1993, 321), where the practitioner secretly strews wool from a sheep’s forehead on a *musukku* or a person with *saharšubbû*-disease, indicating a transfer of the evil affecting the patient. For the accompanying prayer, see also Oshima 2011, 112–113, 354–362. Persons suffering from *saharšubbû* were stigmatised and often forced to live outside the city, see e. g. CAD S 36–37; Scurlock and Andersen 2005, 231–233. An Old Assyrian text with the “statutes” of the Kanesh colony, which has previously been understood as referring to an “impure” man who should not walk around freely “in the gate of the *kārum*” (trading station), has in fact nothing to do with pollution or contagion, see Larsen 1976, 284–285 with fn. 2 (lines 15’–19’), 294 with fn. 24; *contra* van der Toorn 1985, 32 with n. 286.

¹⁵¹ A connection of the term (munus) uzug with women’s reproductive processes is implied by a Sumerian proverb (SP 3. 153), in which the state of an old woman is contrasted with that of an uzug-woman. The short proverb seems to express character traits ascribed to the goat as an

Some Assyriologists assumed that in Mesopotamia, the perceived period of impurity after birth lasted thirty days, but so far there is no concrete textual evidence for the duration of this period.¹⁵² The assumption of a thirty-day period of post-partum impurity rests on a debatable passage in the Late Babylonian ritual text AO 6473, which has been interpreted as a reference to the first month after delivery. The whole tablet, however, is concerned with the fabrication of protective amulets to be worn during pregnancy, not after birth. Thus, the crucial line stipulates in my view that the practitioner shall not “see” the pregnant woman during the month when she was due to give birth (1-*en* ITI šá Û.TU-šú NU IGI-šú). It is worth quoting the passage in full:

You coat the tip, bottom and middle of an *ittamir*-stone (bead) with gold (foil), you thread it on a cord of black-dyed wool. Two magnetite stones in nugget form, two ‘date stones’ with clasps(?) of gold and two leather bags – *huburu*-plant, ‘wood of release’ (*iš pišri*) and ‘heals twenty’ (*imhur-ešrā*)-plant you put inside (the bags). You thread (the stones and the bags) on each side of the *ittamir*-stone. You attach *huppu*-burls of blue-dyed wool on each side, one (on) each (side). You knot seven knots on each side (of the burls). You recite the incantation “They have come down to the land” over (the amulet). Then you put (it) around the neck of the pregnant woman as her *kurinnu*-necklace and fasten it tightly around her neck. Each [mon]th you let (the amulet) descend (a little from her neck), but (during) the one month (in which) she is to give birth you shall not see her.¹⁵³

As Abusch et al. (2020, 52, commentary on lines 6–7) point out, the ritual specialist lowered the woman’s amulet necklace a little over the period of her pregnancy, by untying one pair of the fourteen knots tied into the amulet string each month, starting one hundred days after the woman’s last menstruation (cf. below). This process of gradual lowering of the necklace symbolized the gradual downward movement and release of the foetus. Thus, when all the fourteen knots were untied, the woman entered the month in which she was to give birth, during which no further manipulation of the necklace was to be done by the healer (probably the amulet was removed when the woman went into labour). There is no indi-

animal (maybe alluding to a fable?): “The goat spoke in the manner of a wise old woman but behaved in the manner of an impure woman” (Alster 1997, 106, 392; ETCSL c.6.1.03: ud₅-de₃ nam-um-ma ba-dug₄ nam-u₂-zug₄ ib₂-ak). Although the exact meaning of the sentence remains enigmatic (how can a goat speak in the manner of an old woman?), the message seems to correlate contrasting categories, and the opposition between words and actions can be associated with two contrasting body openings (mouth and vagina). It may be that the old woman is associated with controlled, wise speech, the “impure woman” with the inability of being in control of her body emissions (in contrast to a self-contained state).

¹⁵² See Labat 1957–1971, 179a; van der Toorn 1985, 311; 1994, 92; Stol 2000, 206.

¹⁵³ AO 6473 (= TCL 6, 49) obv. 8–14, Thureau-Dangin 1921, 162, 164–166, 168; cf. Schuster-Brandis 2008, 147–148 (with a differing interpretation). My translation follows the latest edition of these lines by Abusch et al. 2020, text 5.1, with the exception of the concluding sentence in line 14, which they translate “for one month after her delivery you must not see her” (*ištēn arḫu ša alādiša ul tammaršu*). The word *kurinnu* in line 13 seems to denote an object of jewellery (CAD K 560 translates “necklace”).

cation that the expert refrained from seeing the woman because he was concerned that she was in an impure state. But it seems safe to assume that the sentence “you shall not see her” meant only that no further manipulation of the woman’s necklace was supposed to happen in the month of delivery. The fact that we also have rituals which were carried out for a pregnant woman in the month of delivery, contradicts the assumption that purity played a role in the Late Babylonian text AO 6473.¹⁵⁴

In a few omen texts from the first millennium BCE, we encounter the belief that physical contact with a *musukkatu* can have a negative effect on a man, for instance if he accidentally touched or saw an “impure woman” passing by in the street.¹⁵⁵ The first passage found in a text from Assur has been freely restored in this sense:

If a man touches a *musukkatu*-woman passing by, [he will] not [...] for six days.¹⁵⁶

The formulation “for six days” in the omen apodosis has tempted some scholars to restore “he will not be pure” (*ul ēl/ēlil*[KÛ]) in this line (which remains uncertain), and has triggered the conclusion that the imparted period of impurity mirrors the period of impurity of the *musukkatu*, arguing that *musukkatu* refers to a menstruating woman in this omen.¹⁵⁷ However, a Neo-Babylonian tablet related to the terrestrial omen series *Šumma ālu* offers a contradicting omen statement, which is found in a passage dealing with encounters and incidents happening to a man while walking through the street. Many of these encounters are associated with the negative apodosis “he will not attain his wish”. Most of these omens append a short instruction for the client, describing an immediate counter-action that will “release” (*pašāru*) him from the impending misfortune.¹⁵⁸ One of the omens concerns seeing an “unclean *harimtu*” (*harimtu musukkatu*) in the street:

¹⁵⁴ For example, there were rituals to delay delivery when the stipulated month of giving birth was Nisannu (the first month of the Babylonian calendar), since it was believed that a child born in this month would cause disaster for his/her family, see Ebeling 1931, 3–8; cf. Stol 2000, 93–94.

¹⁵⁵ A similar idea is seen in a therapeutic text from Assur (AO 7760, Labat 1950; for the context see Geller 2007b; 2009), which contains a remedy for winning divine favour (“so that a man’s god and goddess take pity on him”), which recommends in addition to an amulet that the patient should not touch an unclean woman (ii 13 *sinništu*[MUNUS] *lā*[NU] *elletu*[KÛ]), maybe to assure the positive effect of the amulet necklace. In a lexical entry (discussed below), the expression “unclean woman” explains the formulation “soiled bandage of a woman in confinement”, associating female impurity with the postpartum discharges.

¹⁵⁶ KAR 300 rev. 6 (Heeßel 2007, 113–115, 143. No. 39): [*šumma*(DIŠ) *amēlu*(LÚ)] *musukkata ētiqta ilput 6 ūmē ul* [x]. This early Neo-Assyrian tablet contains omens drawn from the behaviour of animals and humans.

¹⁵⁷ Van der Toorn 1985, 31 with n. 281; 1989, 349; 1994, 52; Stol 2012, 275; 2016, 440.

¹⁵⁸ Köcher and Oppenheim 1957–1958, 69–71, 72 (copy) and 76 Funck 3 (Text B).

If (a man walks along the street and) there is an impure *harimtu* in front of him: no obtaining of wishes – he may touch her breast and will be released.¹⁵⁹

The word *harimtu* is often translated as prostitute, but it can also refer more broadly to a single woman not integrated into a patriarchal household. The *harimtu* is often associated with a marginal life in the streets.¹⁶⁰ However, impurity was not a general attribute of the *harimtu*, since the omen texts differentiate between seeing or meeting a *harimtu* and an impure one.¹⁶¹ Seeing an “impure *harimtu*” in the street foreshadows failure (not obtaining something desired), but touching her breast releases the impending misfortune. According to Jean Bottéro, *harimtu musukkatu* here referred to a menstruating *harimtu*-woman.¹⁶² But the recommended apotropaic touching of the woman’s breast could allude to the positive powers of breast milk and especially to the therapeutic use of the milk of a *musukkatu* known from medical texts (to be discussed in the next section below).¹⁶³ For this reason, the impure *harimtu* in this omen more likely refers to a *harimtu*-woman who has recently given birth. Following the two omens just discussed, seeing a *musukkatu* in the street was regarded as something negative, but it was also nothing unusual or unexpected to meet such a woman in public, as was seeing a potsherd standing upright in the street (which contradicts the view that women after childbirth would necessarily stay in seclusion).

This survey has found little support for the conclusion often found in Assyriological publications that the term *musukkatu* refers to a menstruating woman, in addition to the parturient. While the exact meaning of the “impure women” in Sumerian texts remains difficult to grasp, the term *musukkatu* is paralleled in Akkadian texts with *harištu* “woman in childbed” and *urruštu* “dirty woman”, pointing to a notion of impurity associated in particular with the genital discharges of childbirth (linked with reproduction). These women are said to defile water through washing themselves or their clothes, which can be related to the experiential model of UNCLEANLINESS described by Feder,¹⁶⁴ but physical contact or proximity to a *musukkatu* also foreshadowed something negative happening in the future, e. g. a period of misfortune. However, it also has to be borne in mind that the retained postpartum blood was regarded as a cause of sickness in par-

¹⁵⁹ See Köcher and Oppenheim 1957–1958, 76 Text B Funck 3, obv. 26 (cf. also lines 25 and 27): *šumma*(DIŠ) *harimtu musukkatu ana pani*(IGI)-*šu lā*(NU) *kašād*(KUR) *šibûti*(AŠ₂) *tulâ*(UBUR)-*ša ilappat*(TAG)-*ma pašir*.

¹⁶⁰ See e. g. Assante 1998; 2007; Roth 2006; Cooper 2006–2008, 14–15; Steinert 2014, 130–131, 139, 144–145 for discussion.

¹⁶¹ See the preceding omen in Köcher and Oppenheim 1957–1958, 76 obv. 25 (seeing *harimtu*-women in the street signals attainment of one’s wishes).

¹⁶² Bottéro 1987–1990, 208 §14; cf. also Stol 2016, 440.

¹⁶³ For a similar apotropaic touching of an object note similar statements in the omen series *Šumma âlu* (CT 39, 38 rev. 8 ff.). In this passage, touching a dog (figurine) of the healing goddess Gula when going to the temple of his personal god would render a man pure.

¹⁶⁴ Feder 2016, 106.

turients, which may have underscored the notions of pollution associated with it. Furthermore, the impurity of the parturient may also have been linked to the liminal nature of childbirth, which was also a potentially dangerous event. Finally, with regard to the debated question whether *musukkatu* also refers to menstruants, the fact that medical texts mention the breast milk of a *musukkatu* makes it more likely that the word designates primarily a woman during the period of her lochia (postpartum discharges). It is possible that the term may have been extended to refer to women having other genital discharges (normal/abnormal, menstrual/non-menstrual), but this cannot be proven from the sources reviewed so far.

3.4. *The Medical Use of Female Body Substances*

Another significant aspect connected with ancient views of menstruation is the ambivalent power ascribed to female bodily emissions. Anthropological research shows that human body emissions (blood, urine, faeces, sweat, semen, etc.) are often not only regarded as dirty or polluting, but they are also seen as positive in other contexts and ascribed curative or vitalising powers.¹⁶⁵ Similarly, some Greco-Roman medical authors express ambivalent notions concerning the application of human body substances for curative purposes, especially with regard to those derived from the female sex. Pliny's *Natural History* includes chapters on the healing powers of women's breast milk and menstrual blood (Chapters 28.21, 28.23), but he also expresses suspicions that the use of female body substances is linked with superstitious and barbarous practices, which he attributes to women in particular:

The remedies said to be derived from the bodies of females closely approach the marvellous nature of prodigies; to say nothing of still-born infants cut up limb by limb for the most abominable practices, expiations made with the menstrual discharge, and other devices which have been mentioned, not only by midwives but by harlots even as well!¹⁶⁶

Mesopotamian medicine offers examples for the use of parts or products of the human (and animal) body, such as bones, skull, semen, hair, urine or tooth, although such ingredients are sometimes known to stand for *materia medica* of plant or mineral origin.¹⁶⁷ Of special interest in the present context are prescriptions making use of female body substances such as menstrual blood and breast

¹⁶⁵ E. g. Meigs 1978, 308–310.

¹⁶⁶ *Natural History* Chapter 28.20, translation by Bostock and Riley 1855. Available at www.perseus.tufts.edu. Note also *Natural History* Chapter 7.13 (15). For discussion of the ambivalent notions around menstrual blood in ancient Rome, see e. g. Lennon 2010.

¹⁶⁷ See Biggs 2006, 47–49 for examples of ingredients derived from substances of the human body. For example, drug designations such as “sailor’s faeces”, “human excrement” or “human bone” are in fact equated with plant names, as can be gleaned from drug lists (see e. g. Köcher 1995, 204; Stol 2003–2005, 505a; Rumor 2017; 2020a).

milk. A couple of first millennium BCE medical texts recommend particularly the breast milk of a *musukkatu* as an ingredient, sometimes specifically the milk of a *musukkatu* who has given birth to a son.¹⁶⁸ The applications are mainly external and found in treatments for the eyes (bandages, salves) and in a recipe for epilepsy (or a related ailment) as an ingredient of an ointment. The choice of the milk of a *musukkatu* “impure woman” (instead of merely human milk) is likely linked with a belief in the particular efficacy of this special milk, which supports the interpretation of the word *musukkatu* as a term for women during the first weeks after delivery when they emit postpartum discharges (lochia).

In the treatise on eye ailments from Nineveh, a few recipes use milk of a *musukkatu* mixed with other crushed *materia medica* (plants, minerals or animal substances) for eye salves or bandages.¹⁶⁹ One of these passages reads:

EYES (IGI) Tablet 1 (BAM 510 i 31'–32' // BAM 513 i 21'–22' // BAM 514 i 38'–40' // BM 54641+54826 obv. 8–10'):

If a man's eyes are full of blood and he cannot sl[ee]p day and night [...], if the inner part of his eyes is red and his eyes are covered (i. e. closed): you parch *kasû*-plant (tamarind?), knead it (together) with [...] and sheep [du]ng in the milk of an impure woman (and) bandage (his eyes with it). ... (recipe continues)¹⁷⁰

The use of sheep dung in an application for infected eyes looks bizarre from a modern perspective, but it is uncertain whether the ingredient could be an alter-

¹⁶⁸ See CAD M/2 239; CAD Š/3 150 (most instances in medical recipes refer to the milk of animals, however).

¹⁶⁹ The use of breast milk for treating eye infection attested in other ancient cultures (in Egyptian, Greek, Roman, Indian, Byzantine texts) may suggest that in the absence of modern antibiotics, breast milk may have been of some help in the past (Hirschberg and Blodi 1982, 19, 45, 197, 295, 321). Interestingly, it is still common lore among present day mothers that breast milk can be used to treat minor health problems of their babies, such as eye infection (so-called Red Eye), ear infection or eczema. Modern lab studies have confirmed limited effects of the antibodies in breast milk – and more so in colostrum, the first milk produced in the first hours after a delivery – against pathogens and conditions such as conjunctivitis (Baynham et al. 2013; Ibhanebehbor 1996). However, since the period in which colostrum is produced is rather short (it lasts only two to four days after delivery, an identification of the milk of a *musukkatu* with colostrum is unlikely in my view. The efficaciousness of the milk of a *musukkatu* appears to rest on its association with the postpartum discharges, which can last for several weeks after delivery.

¹⁷⁰ Geller 2010b, 62; Attia 2015, 10, 29; Geller and Panayotov 2020, 66 IGI 1 lines 36'–37': *šumma amēlu ināšu dama malā urra u mūša lā iṣallalma [...]* *šumma libbi inīšu sām ināšu katmā kasā turrar itti [...]* *kabūt immeri ina šizbi musukkati talāš tašammid*. More eye recipes applying breast milk are found in BAM 510 i 42' // BAM 514 i 48' (fragmentary, Attia 2015, 11; Geller and Panayotov 2020, 69–70 IGI 1 line 47'), where possibly galena (*šimbizidū*) is crushed in the milk of a *musukkatu* and applied as salve (for eyes that are full of blood). The same mineral *šimbizidū*, which has been linked with the lead-based substance galena, a well-known mineral in ancient eye cosmetics, is also crushed with the milk of a *musukkatu* and applied to the eyes in a recipe in Tablet 3 (BAM 516 i 68'; Scurlock 2006, 368 No. 124; Attia 2015, 74; Geller and Panayotov 2020, 163–164 line 39'). For further eye prescriptions with the milk of a *musukkatu*, see BAM 515 iii 21' and iv 9 (EYES Tablet 2, Attia 2015, 48, 52; Geller and Panayotov 2020, 142 line 155', 148–149 line 205').

native name for a plant.¹⁷¹ In a Neo-Assyrian text from Nimrud with treatments for epilepsy and similar ailments, “milk of an impure woman who has given birth to a son” is found as ingredient of an ointment. This expression is of particular interest, because “milk of one who has given birth to a male (child)” is also found as a remedy in ancient Egyptian medical papyri. One text recommending this special kind of breast milk as ingredient in treatments for skin burns (‘London Medical Papyrus’ BM EA 10059) links its application in accompanying spells with a myth about Isis who healed her child Horus suffering from burns with her milk.¹⁷² It may be asked whether the rare formulation “milk of an impure woman who has given birth to a son” in the Mesopotamian texts was adapted from the Egyptian “milk of a woman who has given birth to a male” through cross-cultural contacts and exchanges, or whether it is a parallel, but independent phenomenon and merely a variant of the more usual ingredient “milk of an impure woman.” At least the element “impure woman” is never found in Egyptian contexts of the formulation, but is only encountered in the Mesopotamian sources. Breast milk was also regarded as a remedy in Greco-Roman medicine. For instance, Dioscorides’ *Materia Medica* (2.78) contain a few recommendations for the use of a woman’s milk (e.g. for bloodshot eyes and gout). In his *Natural History* (chapter 28.21), Pliny recommends breast milk as a remedy for various ailments such as fever, gnawing sensations, for bloodshot or painful eyes, for diseases of the ears, lungs, stomach, against gout or diarrhoea. But he adds that “the milk of a woman who has been delivered of a male child is the most efficacious, and still more so if she has had male twins; provided always she abstains from wine and food of an acrid nature.”¹⁷³

A Neo-Assyrian remedy from Nimrud uses this special “milk of an impure woman who has given birth to a son” in the context of treating epilepsy, which seems to be unparalleled in Egyptian and Greek sources:¹⁷⁴

¹⁷¹ The dictionaries give references to two other kinds of ‘dung’: *kabūt alpi/Šeriš* ‘dung of an ox’ and *kabūt imēri* ‘donkey’s dung’, both of which also occur in the texts written with the classifier for stones and minerals, which means that these substances could be of mineral origin as well (CAD K 29 s. v. *kabū* A sub b; Schuster-Brandis 2008, 448).

¹⁷² Leitz 1999, 72–73 Incantation 34–35, and Pommerening (2015) for further references and discussion. Papyrus Ebers contains several treatments recommending milk of a woman who has given birth to a son (mostly in compound recipes): as in Mesopotamia, it is prescribed there mainly for eye diseases (blood in the eyes, inflammation), but also in ointments against skin rashes and burns, and in bandages against swellings (Westendorf 1999, Eb 109, 111, 368, 384, 408, 414, 499, 500, 575, 642, 763). Pommerening’s study elucidates the transfer of the expression into Greek, together with a loan translation of an Egyptian prescription using this milk found in the Hippocratic treatise *De sterilibus* (Pommerening 2015, 2090). Breast milk of a woman who has born a son is also found in later Greek and Latin medical authors, e.g. in Pliny’s *Natural History* XXVIII 72. For breast milk in Egyptian medicine and for its conceptualisation with regard to the female reproductive body, see also Pommerening’s contribution in this volume.

¹⁷³ Translation by John Bostock and H. T. Riley (1855). Available at www.perseus.tufts.edu.

¹⁷⁴ CTN 4, No. 72 i 3’–9’ (Kinnier Wilson 1956, 40; Stadhouders 2011, 39–40, 46 § 2’).

[If a man while] walking down the street falls down on his face, his eyes are open wide, (but) he has no saliva (flow) and he cannot move his hands and feet through his own volition, (then) an Evil One has seized that man, the creation of Antašubba (epilepsy) is inseminating him. ‘Dung of Šeriš’ and salicornia you dry, crush and mix with the milk of an impure woman who has given birth to a s[on], you recite the (pertinent) incantation, rub him repeatedly (with this salve), put (a bead of) smelted iron around his neck and the Evil One (that is) upon him will be eradicated.

Incidentally, as in the eye remedy from the treatise EYES discussed above, this recipe prescribes a substance designated as “dung”, here “dung of the god Šeriš” (ox dung), a drug name often encountered among stones in amulet prescriptions and therefore possibly of mineral origin.¹⁷⁵ But the most conspicuous aspect of this prescription is the contrast between the diagnosis, i. e. the patient being “inseminated” (*rehû*) by a demon (linked with Antašubba, a form of epilepsy), and the prescription of breast milk, a substance looking similar to semen and likewise linked with reproduction.¹⁷⁶

A related, variant drug name attested in the treatments for epilepsy is “urine of a *musukkatu* who has given birth to a son”, found as an ingredient in a recipe for a leather pouch in a text from Nineveh (BAM 476 obv. 10’–13’). Beside the urine, this recipe mentions several exotic ingredients, some of which may stand for medical plants. These include an animal with two tails (fragmentary), “the tongue and blood of a male partridge” (EME MÚD *iššûr hurri* NITA), “urine of an impure woman who has given birth to a son”, the “tongue of a *harriru*-mouse”, the “head of a bat” (SAG.DU SU.TIN^{mušen}) and “spur of a bat” (*rikibti arkabi*), which are wrapped together into the hide of a virgin kid and the hide of a dormouse (*arrabu*), to be worn around the neck.¹⁷⁷ For practical reasons, one could assume that the drug named “urine of an impure woman” should rather be a solid ingredient and may thus not be meant literally, but could likewise be an alternative or alias name for a plant ingredient. Similar prescriptions using bizarre ingredients (so-called *Dreckapotheke*) are also attested elsewhere in connection with epilepsy and illnesses attributed to demons and ghosts, which reminds us of the association between demons such as Lamaštu with substances deriving from animals or human bodies or associated with powerful dirt and impurity.

¹⁷⁵ See Schuster–Brandis 2008, 448, sometimes written with the classifier for stones, e. g. in BAM 183: 4; BAM 194 iv 18, v 9; BAM 316 iv 8. The milk of an impure woman who has given birth to a son is also attested in the Assur text BAM 35 i 20’ concerned mainly with skin ailments, where it is found in a prescription for an ointment applied to the face and nostrils.

¹⁷⁶ For epilepsy and demons associated with it, see Stol 1993, 5–21; cf. also CAD R 252–254; *rehû* means “to inseminate; to impregnate; to pour over; to overcome”.

¹⁷⁷ “Head of a bat” is an alternative name for the *lišān kalbi* plant (“dog’s tongue”, cynoglossum [?]), as is explained in the drug compendium Uruanna III 36 (see CAD S 419b; Rumor 2017, 9), and possibly more of the named ingredients here are alias names as well. For *rikibti arkabi* “spur(?) of a bat”, see also Zisa 2022, 168–173 *passim*. For discussion of the notion of alias names vs. ‘secret’ names (*Decknamen*), see Rumor 2017; 2020a.

Another body substance with these connotations is blood and menstrual blood in particular. Although the Mesopotamian medical texts never mention the curative use of menstrual blood itself, we find several remedies mentioning a “soiled rag” or cloth stained with a woman’s blood as an ingredient. Drug designations such as “blood of a wronged man” or “blood of a dead man” occur as alternative plant names in drug compendia, but the actual use of animal blood is quite common in Mesopotamian medicine, for example in external applications.¹⁷⁸

From lexical passages such as *ur₅-ra* = *hubullu* Tablet 19 and from medical texts, we learn that the expression “soiled rag” (*ulāpu lupputu*, Sumerian *túgníg-dára šu-lál*) is synonymous with the word *kannu* “bandage”,¹⁷⁹ designating a piece of cloth worn by menstruating and postpartum women to absorb the blood.¹⁸⁰

Ur₅-ra = *hubullu* Tablet 19: 301–307:¹⁸¹

<i>túgníg-dára</i>	= <i>ú-la-pu</i>	“rag, bandage”
<i>túgníg-dára múd</i>	= MIN <i>da-mi</i>	“ditto (bandage) for the blood”
<i>túgníg-dára šu-su-ub</i>	= MIN <i>su-ú-ni</i>	“ditto for the loins”
<i>túgníg-dára šu-lál</i>	= MIN <i>da-me</i>	“soiled bandage” (Akk. “ditto for the blood”)
<i>túgníg-dára gal₄-la</i>	= <i>si-in-bu</i>	“loincloth” (Sum. “bandage bound around the genitals”)
<i>sír-ra</i>		
[<i>túgníg-dára b</i>]ar-ra	= <i>kan-nu</i> (var. TÚG)	“bandage (var. cloth) of ...”
	<i>šá e-riš-ti</i>	
[<i>túgníg-dára úš-a</i>]	= MIN <i>šá ha-riš-ti</i>	“ditto of the woman in childbed”

These lines link *ulāpu* (also *hulāpu*) “rag, bandage” with a cloth that could be worn (or bound) around the lap or loins¹⁸² and could be used “for (absorbing)

¹⁷⁸ CAD D 77–78 s.v. *damu* 1b–2'. For alias plant names of this type, see Uruanna I 204 “blood of a black snake” (as name of the *aktam*-plant); Uruanna III 106–107 “blood of a wronged man”, “blood of a dead man”, III 317–317a “blood from the nose of a man/woman”; “lion’s blood” (= the sap inside the tamarisk), see Rumor 2017; 2020a, 40. Some texts explicitly mention slaughtering an animal or collecting its blood, which shows that at least in some cases we can be sure that indeed the animal’s blood was used, e.g. for ointments to soothe the snake sting, in potions for potency (see e.g. Zisa 2021, 165, 167, 169, 176, 181 *passim*) or in therapies for epilepsy-related conditions (e.g. TCL 6, 34 i 1'–9', Scurlock 2014a, 339–340). See also Steinert 2012, 67, 83, 84–85 for the prescription of (animal) blood in cases of abnormal haemorrhage.

¹⁷⁹ See above 2.3 for *kannu* as “(menstrual) bandage in first millennium BCE gynaecological texts. The term *kannu* also means “band” (to tie the hair), belt (e.g. of wrestlers) or rope (CAD K 156–157 s.v. *kannu* B; Wasserman 2019, 1133; Abusch et al. 2020, 59 text 5.3 comments on line 13'–14').

¹⁸⁰ For *túgníg-dára* in Sumerian texts, which is interpreted either as a loincloth worn as underwear or as a strip of poor-quality cloth used as “menstrual rag” or sanitary towel”, see Sjöberg 1973, 140; Waetzoldt 1980–1983a, 25; Volk 1995, 185–186; Civil 2008, 10; Pomponio 2010, 193, and further Garcia-Ventura 2013 discussing also the related term *túgú níg-dára* “loincloth”; for *ulāpu* see also Wasserman 2019, 1133. Cf. CAD L 252–253 s.v. *lupputu*.

¹⁸¹ Landsberger, Reiner and Civil 1970, 136.

¹⁸² Cf. CAD U/W 71–72; CAD S 388–390; AHw 1059, 1408, as implied by the equation in line 305. CAD books our passage under *sūnu* B (rather than *sūnu* A “genitals”), which designates “a part of clothing” and is explained as synonym of *ulāpu* in the commentary HAR-gud Recension E 79 (Landsberger, Reiner and Civil 1970, 142; also in the medical commentary SpTU I, No. 27

the blood” (*damu*). The genitive *dame* is given as translation for Sumerian *šu-lál* in line 304, which is usually rendered with the adjective *lupputu* “soiled” in Akkadian, but here clarifies the use of the bandage (^{túg}níg-dára/*ulāpu*) as a menstrual rag.¹⁸³ The entry *kannu* (var. TÚG) *ša erišti* is probably unrelated to *urruštu* “dirty woman” (or the adjective [*w*]aršu),¹⁸⁴ but the last entry “bandage of the woman in childbed” is explained in a commentary as “(the bandage) of an impure woman” and expands on the connection with women’s genital discharges.¹⁸⁵

If we turn to prescriptions from the first millennium BCE using “soiled bandage/rag”, we have to add one note of caution. Since it is known that a number of Akkadian drug designations referring to animal substances served as alternative names for plants, it is possible that the drug “soiled rag” is also a “metaphorical” drug name with symbolic associations, which is not to be understood literally, but stands for a plant substance. A Late Babylonian medical commentary on the therapeutic series *Qutāru* “Fumigation” as well as the drug compendium *Uruanna* equate *ulāpu lupputu* with “fox flesh/meat” (*šīr šēlebi*/*UZU KA₅.A*).¹⁸⁶ However,

rev. 12, Hunger 1976, 35–36). However, the logogram ^{túg}ÚR (also ^{túg}TÚN) for *sūnu* indicates that it was often worn around the thighs or loins suggesting an intrinsic connection between the assumed homonyms, although references show that the *sūnu*-cloth had different uses, e. g. as a piece of clothing or as a cloth for filtering. The process of semantic extension from body part terms to items of clothing worn on them is well attested (Malul 1986, 29). The logogram ^{túg}NÍG.DÁRA ŠU.LÁL is equated with *ulāpu lupputu* or *ulāpu lu’u* “dirty rag” in the Late Babylonian medical commentaries SpTU 1, No. 28 rev. 4’ (Hunger 1976: 37) and BRM 4, 32: 6 (Scurlock 2014a, 342). For *sūnu*, see also Wasserman 2019, 1135.

¹⁸³ For a further, though subtle symbolic link between the cloth covering the genitalia and menstruation, cf. the Sumerian myth *Inanna and Šukaletuda*, in which the gardener Šukaletuda unties and removes the sleeping goddess’ loincloth (^{túg}níg-dara₄) and assaults her sexually, for which Inanna takes revenge by turning all the subterranean waters and wells in the land into blood (cf. Volk 1995, 41–51; Grahn 2010).

¹⁸⁴ The word *erištu* (in late sources also *arištu*) is probably not related to *aruštu*, the feminine form of (*w*)aršu “dirty”. AHw 242a sub 3a connects the expression in HAR-ra = *hubul-lu* with *erištu* “request” (erroneously spelled *arištu*) and suggests the meaning “Umstandskleid” (maternity dress), which seems unlikely. However, CAD A/2 268 proposes based on other lexical equations that *erištu/arištu* means “(garment) of sorrow” (mourning) and is unrelated to (*w*)aršu “dirty” or *harištu* “woman in childbed”. Note that ragged and dirty clothing is a usual sign of mourners (cf. the lexical sections in CAD K 222 sub *karru* B, CAD A/2 309 sub *aršu* and CAD U/W 210 s. v. *urāšu* C), which may have motivated the inclusion of the entry here. The reason why *erištu* is listed side by side with *harištu* in this passage may also have to do with the similar sound of *erištu* and *harištu*.

¹⁸⁵ See ur₅-gud D Tablet III 428, cf. ur₅-gud B Tablet V i 25 (Landsberger, Reiner and Civil 1970, 139, 141): [^{túg}níg-dára] úš-a = MIN *ša harišti* = *ša lā elleti* (KÜ-ti).

¹⁸⁶ For references see also CAD Š/2 269 sub 1d; CAD U/W 71–72; CAD L 252–253. The commentary BRM 4, 32: 6 (Scurlock 2014a, 342) gives the order ^{túg}NÍG.DÁRA ŠU.LÁL: UZU KA₅.A (also found in CT 14, 37 [K. 14120]: 2’), while in most other attestations in tablets related to the compendium *Uruanna* (from a section entitled “lion’s blood is the fluid inside the tamarisk”), we find the reversed order [UZ]U KA₅.A = ^{túg}NÍG.DÁRA ŠU.LÁL, with the latter standing in the right column together with a group of plant names, while the terms in the left column form a group of expressions referring to body substances (meat) of animals and humans (CT 37, 26 i 17, var. Köcher 1955, No. 28 i 29; cf. also K. 4199 i 8’ [Meek 1920, 138–139], followed by the entry “the

“fox flesh/meat” itself is not known to be a plant name, and it is not written with the classifier for plants as would be expected (as e. g. in ⁴EME UR.GI₇ = *lišān kalbi* “dog’s tongue”). The equation of “soiled rag” and “fox flesh/meat” may play on the red colour of a blood-stained rag, a piece of meat and the fur of a fox, but it is difficult to say whether the two expressions are alternative names for one and the same drug.¹⁸⁷ Another medical fragment listing drug names resembling a commentary (BAM 307: 23) juxtaposes [UZU KA₅].A¹ = ⁴gNÍG.DÁRA ŠU.LÁL, followed by the plant name *sikillu* (⁴SIKIL), but it is uncertain whether *sikillu* is a further equation, whether it is an alternative drug with equivalent properties or qualities, or whether it forms a separate, unrelated entry.¹⁸⁸

Interestingly, “soiled rag” as a drug is found several times in rituals and medical prescriptions for babies.¹⁸⁹ Likewise remarkable is that this drug is always applied externally, in ointments, fumigations and amulets/leather bags worn on the body. Third, the ingredient often occurs in apotropaic prescriptions warding off demonic agents of disease. The apotropaic significance of the “soiled rag” is elucidated by an incantation from the series against Lamaštu, in which “the soiled rag from a brothel/inn” is listed among other magically potent objects, by which the demon is conjured and which are called “the abominable things of yours”:

I am casting a spell (against) your persistent counsel, ...
 I have cast against you a *tranquilizing* spell:
 By (this) command of well-being be off, be g[one]!
 You are not one who can do whatever she pleases!
 Your demonic adversary, the magician Asalluhi,
 Will render your venom ineffective, will pull away your hands,
 from the body of this baby who is under tutelage of his personal god.
 He will make disappear fever, cold, frost (and) ice.
 Before I will conjure you by the work of evil,

fluid from fox meat = human semen”). Note the equation “flesh from the head of a snake” ([U]ZU SAG.DU MUŠ) = *sikillu* (⁴SIKIL) is listed in the same section, a few lines before “fox flesh/meat = soiled rag” in CT 37, 26 i 12 and Köcher 1955, No. 28 i 24).

¹⁸⁷ For a rare prescription of vixen meat as a foodstuff for a woman giving birth among other types of meat, cf. BAM 248 iv 25–27.

¹⁸⁸ Scurlock (2014a, 380, 417, 624, 674, 683 701 fn. 10–12) consistently equates “soiled rag” and *sikillu*, understanding the former as an alternative name for the latter. But often “equations” of differing plants or drugs in Uruanna are meant to give alternative choices between different drugs with equivalent effect. Note also that there are other alternative names or equivalent drugs for the plant *sikillu*, which refer to animal substances (cf. CAD S 243 lex. section). Maddalena Rumor (2020b) presents a study on the *sikillu* plant (possibly to be identified with squill) in Mesopotamian medicine. One commonality between “soiled rag” and *sikillu* seems to be that both are prescribed for ghost-induced ailments together with smelly substances such as sulphur. However, one difference between them is that *sikillu* is not found as ingredient of fumigations, as is “soiled rag” (Rumor, personal communication). The *sikillu*-plant is designated as a “plant for purification” from evil (the Sumerian name literally means “pure [plant]”), which is often used as an emetic and was thought to be particularly effective to dispel witchcraft.

¹⁸⁹ See CAD U/W 71–72; CAD L 252–253.

By the work of ..., by the soiled rag from an inn/brothel (*ulāp aštammi lupputu*),
 (and) pig's lard, get hold of (all) these abominable thing(s) of yours!
 Take them away, bring them out of here,
 The evil gods, the evil agents,
 The ones who belong with you, who march in front and behind you!
 Like dew of the stars, like a spectre of the windows,
 Like a mongoose do not slither in by the door-pivot,
 Do not climb over the sherds of the roof!
 I will make you ride on the four winds,
 Will fill your boat with travel provisions, will send you, yes: you, off.
 Clever Adapa, the Sage of Eridu,
 Who can see you in Eridu, will have a close look at you, yes: at you.
 He will render your venom ineffective, will pull away your hands
 from the body of this baby who is under tutelage of his personal god.
 Be off, be gone!" Incantation formula.
 Recitation against Lamaštu.¹⁹⁰

The accompanying recipe for an ointment to be rubbed on the baby, over which the incantation is recited, indeed employs the "soiled rag" together with other substances, which must have produced a mixture quite offensive to the nose:¹⁹¹

Its ritual: (A piece of) donkey's hide, fuller's paste, 'soiled rag', *ziqqatu*-fish (and) lard from a white pig – you mix all together, rub him (with it), and he will be well.¹⁹²

The efficacy of the ingredients in warding off Lamaštu rests partially on the spell, which is supposed to function like an oath: Lamaštu is conjured (lit. put under oath) by invoking objects associated with her: the soiled rag and pig's lard.¹⁹³ Through these objects, Lamaštu is forced by oath to stay away from the baby, but she is also offered these objects as a substitute – a reminiscence to Lamaštu rituals and amulets, in which the demon receives or is depicted with provisions in the form of foodstuff, cloth and other objects connected to the female sphere (e. g. a spindle).

A similar, but more elaborate ointment for the baby is preserved in Tablet III 64–68 of the Lamaštu Series; a variant of the recipe is also found in a collection of prescriptions for salves and fumigations from Sultantepe (STT 281 iv 1–9, 15).¹⁹⁴

¹⁹⁰ Lam. II 1, 4–27; Translation in Farber 2014, 164–167.

¹⁹¹ JoAnn Scurlock (personal communication) supposes that the ingredient "soiled rag" refers to a plant with a nasty smell.

¹⁹² Lam. II 28–30; Farber 2014, 166–167.

¹⁹³ Pig lard is reminiscent of a piglet (and dog puppy) depicted suckling on her breast on the Lamaštu amulets, functioning as substitutes for the human victim. See also Lam. III 14, in which the demon receives the heart of a piglet to eat as a substitute. Both pig and dog have an ambivalent status in Mesopotamia – both are associated with the streets, functioning as garbage disposals, and the pig is sometimes linked with dirt (e. g. sullyng places with their excrements), an aspect further underlined by the "soiled rag" (see Steinert 2014; 2016). Cf. above for the similar conjuration of Lamaštu by the clothes of a "dirty woman" (*urruštu*).

¹⁹⁴ Farber 2014, 29, 135–136, 190–191; Scurlock 2014a, 683.

Bitumen from a boat, bitumen from a rudder, bitumen from an oar, bitumen from any other equipment of the boat, dust from a quay and a river crossing, pig lard, fish oil, hot bitumen, ghee, *ankinūtu*-plant, *aktam*-plant, *aprušu*-plant, *azallū*-plant, a (piece of) donkey's hide, fuller's paste, 'soiled rag', NUN.BAR.HUŠ-fish, lard from a white pig, (var. adds: tallow, [...] fat, cedar resin ['blood'] – twenty-two ingredients for) an ointment (var. adds: against Lamaštu. ... You rub the baby [with it] and he will get well.)

Beside the set of symbolically charged ingredients already encountered before, this recipe also makes use of medical plants as well as of bitumen from boat parts and dust from river banks, reminiscent of the boats in which Lamaštu is driven off to the netherworld in incantations and on some Lamaštu amulets. If we further take into account that the drug "soiled rag" occurs predominantly in recipes (prophylactic or therapeutic) to ward off ailments attributed to demons or ghosts, one may propose another line of interpretation as an underlying rationale for using this ingredient, taking into account cultural associations that may be linked to the "soiled rag": namely, a connection with blood on the one hand, a life-substance which demons feed on (because they lack it), a connection with dirt (which is also an attribute of demons such as Lamaštu), and an association with decay and death, the latter of which may have triggered the association of the "soiled rag" with the treatment of ghost-induced illnesses. Another aspect that comes into play is the sensory significance of smelly, repulsive substances encountered together with "soiled rag" in prescriptions against demons and ghosts, such as animal hair and dung, stag horn, bitumen, sulphur (e.g. in fumigations). The use of strong scented materials for warding off evil, to attract or repel spirits, to treat illnesses such as possession disorders is often reported in ethnographies, and anthropologists argue that smells are used to mediate transitions between social categories (e.g. in rites of passage), because they signal processes of transformation.¹⁹⁵

Two other prophylactic treatments for babies known from first millennium BCE sources list "soiled rag" among the ingredients, the first being an ointment to avert sickness and the second a fumigation to ward off the "wind demon" (*lilû*). Both examples combine ingredients of plant, animal and (supposedly) "human" origin (such as combed-out hair):

K. 6901+ iii 61'–64' // LKU 32 left edge; var. BAM 183: 6–7:

If you do not want illness to approach a baby: seed of *e'ru*-tree (cornel?), tamarisk seed, *pap-parhû* seed and 'soiled rag' you roast, crush and mix with oil. Before (the baby) is given the breast to suckle, you rub him (with the mixture), and he will stay healthy.¹⁹⁶

¹⁹⁵ See e.g. Gell 1977, 25–27; Howes 1987; Classen, Howes and Synnott 1994, 123–158; Parkin 2007. For discussion of value judgements and social implications linked with pleasant and repelling odours in Mesopotamia and their associations with contrasting phenomena such as health/life vs. sickness/death, see also de Zorzi 2019; Steinert 2022: 505–506.

¹⁹⁶ Farber 1989, 64–67 §15. and §15A. A variant of the remedy is found in K. 3628+ rev. 13'–15' // BM 134780: 8'–10' (Farber 1989, 67 §15; Scurlock 2014a, 623, 625): "If you do not want anything evil to approach a baby: you mix seed of *e'ru*-tree, seed of *šakirû*-plant, seed of *šimru*-fennel and 'soiled rag' with oil. Before (the baby) is given the breast to suckle, you rub him (with it), and

K. 3628+ obv. 21–23, var. BAM 183: 14–15, cf. K. 3628+ obv. 13–14:

For ditto (i. e. if you do not want the *lilû*-demon to come close to a baby): You fumigate him (var. rub him repeatedly) with snake skin, ‘mother scorpion’ (*tārīt zuqaqīpi*, i. e. the back shield of a scorpion?), cress, ‘soiled rag’, combed-out hair, and horned alkali (var. [mixed] with oil).¹⁹⁷

Another context in which the ingredient “soiled rag” is prescribed in Mesopotamian medicine are ailments attributed to ghosts.¹⁹⁸ These prescriptions are likewise restricted to fumigations, amulets and ointments, and a conspicuous feature is the occurrence of various items of *Dreckapotheke* according to the exotic drug names involving animal and human body substances. As an example, the following recipe against ghost-affliction lists several different types of animal “excrement” beside “soiled rag” and other substances (sulphur, bitumen, stag horn), which together must have produced a strong odour, if the patient was fumigated with them:

AMT 93/1: 10’–12’ // K. 2492: 8’–10’:

If a ghost afflicts a man, in order to cure him: you fumigate him with pig dung, dog dung, wolf dung, fox dung, gazelle dung, *nīnû* plant (mint?), horned alkali, stag horn, sulphur, bitumen, ‘human bone’ and ‘soiled rag’ (burned) over embers.¹⁹⁹

The ingredient “human bone”, which might be seen as linking it with the world of the dead, is explained in drug compendia as a name of the *ēdu*-plant (*šammu ēdu*, lit. “solitary plant”).²⁰⁰ “Fox dung” (ŠE₁₀ KA₅.A) is equated with “sailor’s excrement” (ŠE₁₀ MÁ.LAH₄) in Uruanna I 658, which is further explained as “plant from the bank of the river” and “product of the waves”, referring possibly to a type

he will stay healthy.” According to Farber (1989, 66), this treatment would be employed immediately after the birth of the baby, before it was given the breast for the very first time.

¹⁹⁷ Farber 1989, 126–127 § 45; Scurlock 2014a, 622–625. The ointment in K. 3628+ obv. 13 is recommended if a baby is seized by the “Hand of the goddess”. BAM 183 is an excerpt tablet with short recipes for amulets, fumigations and salves used e. g. for babies and against Lamaštu, which are written down in abbreviated form lacking most of the initial purpose statements (for the text see also Schuster-Brandis 2008; Farber 2014, 137). The same fumigation (excluding horned alkali) is prescribed in BM 42272: 70–71 for fever, see Bácskay 2015, 7, 22; Bácskay 2018, 127 lines 39–40; Scurlock 2014a, 414.

¹⁹⁸ For an overview of the various health problems attributed to ghosts, see the overview in Scurlock 2006, 5–20.

¹⁹⁹ Scurlock 2006, No. 287. For comparable fumigations against (persistent) affliction by a ghost see also BAM 469 rev. 8–21 and BAM 471 iv 1’–5’, two partially duplicating Nineveh collections with therapies against ghost-induced conditions (Scurlock 2006, No. 276–279). All of the four prescriptions in this passage feature “soiled rag” as a key ingredient, often combined with sulphur, tamarisk seed as well as varying combinations of other ingredients, among which are “hair of a white stallion”, “hair from the tail of a black dog”, “the afterbirth of a ... woman” (ARHUŠ MUNUS *pakarti*), “stag horn” and “the jawbone of a male pig”.

²⁰⁰ See Uruanna I 236a, 424, cited in CAD E 38. Another name of this plant was *haṭṭi rēi* “shepherd’s staff” (Köcher 1995, 204; Böck 2014, 157–158 *passim* for further equations of *haṭṭi rēi* with still other plant names).

of algae.²⁰¹ Similarly, “dog dung” is given beside “dog’s tongue” and “dog’s bone” as alternative names of the *nikiptu*-plant in this drug compendium.²⁰² The ingredients “pig dung”, wolf dung” and “gazelle dung” could likewise form (still unknown) alias names for medical plants.²⁰³

Sulphur, “human bone” and “soiled rag” occur together in another remedy from a collection of treatments for ghost-induced illnesses; this time they are wrapped into a leather bag worn around the neck, to stop a man from seeing dead persons in his dreams, which was a sign of a ghost attack:

AMT 29/1 (K. 8777) i 3 + CT 23, 15–22+ (= iv 18):

If ditto (a person continually sees dead people in his dreams): *kibritu*-sulphur, *ru’itū*-sulphur, ‘soiled rag’, (and) ‘human bone’ in a leather (bag).²⁰⁴

Other ailments attributed to ghosts such as roaring ears were treated with fumigations containing “soiled rag”:

BAM 503 i 28’–29’ // (var.) BAM 508 iv 1–2 // CT 51, 199: 1–4:

If a man’s ears roar due to affliction by the ‘Hand of a ghost’ (var. recitation for the case that his ears roar. The procedure for it): you fumigate his ears with *urānu*-fennel seeds, seeds of *e’ru*-tree (cornel?), male and female *nikiptu*-plant, horse hair (*zappi* ANŠE.KUR.RA) and ‘soiled rag’ (burned) over embers.²⁰⁵

Of special interest is a remedy (leather bag) for gnashing one’s teeth at night, preserved in two manuscripts from Assur, where in one text *sikillu*-plant is listed as ingredient instead of ‘soiled rag’, which could be taken as a hint that both refer to the same drug:

BAM 30 rev. 38’–40’ // BAM 311 rev. 93’:

If ditto (a man gnashes his teeth): dust from a road, ‘soiled rag’ (var. *sikillu*-plant), ‘human bone’ (var. *ēdu*-plant), ‘field cricket’ (worn) in a leather pouch.²⁰⁶

²⁰¹ Uruanna I 658, 661–663 and III 91, cited in CAD B 243, CAD Z 151 sub 1c–l’; Rumor 2017, 18.

²⁰² Uruanna III 39, cited in CAD N/2 222; see now Rumor 2017, 10. *Nikiptu* is a plant from which a special oil was prepared, which was used in medicine. Another name of this plant, “Ninurta spice”, indicates that it was an aromatic, odoriferous plant (see Maul 2018).

²⁰³ For other plant designations referring to body parts or substances of pig, wolf and gazelle, see CAD Š/1 104 sub 1d; CAD N/2 196–197 sub 1g; CAD § 43–44 sub e (A.GAR.GAR MAŠ.DÀ).

²⁰⁴ Scurlock 2006, No. 28. For a photo see CDLI P365739.

²⁰⁵ Scurlock 2006, No. 137a; 2014a, 370. This remedy forms part of the treatise on ear ailments known from tablets found at Nineveh. Variations of this fumigation for roaring ears with ‘soiled rag’ were integrated into this treatise (with a varying number of ingredients), see BAM 506: 5’ (Scurlock 2006, 137b) and in BAM 503 i 30’, 35’ (Scurlock 2006, No. 138, 141; 2014a, 370). Cf. also BAM 503 i 12’ (Scurlock 2006, No. 159; 2014a, 369).

²⁰⁶ Scurlock 2014a, 673 and 701, noting that BAM 311: 90’–93’ consistently seems to replace the exotic ‘soiled rag’ and ‘human bone’ with the “real” plant names. A variant leather bag recommending ‘human skull’ instead of ‘human bone’ and ‘dust of an *uppatu*-insect’ instead of street dust follows in BAM 30: 41’–42’. For *timbūt eqlī* ‘field cricket’ equated with different plants in Uruanna, see CAD T 418 sub 3b. BAM 30 is a tablet from Assur with charms, rituals and incantations against gnashing teeth. The rituals make use of a human skull, which the patient has to lick

The equivalence of *sikillu* and “soiled rag” is underscored by the variation between “human bone” and *ēdu*-plant, which are explained as equivalent or identical in the drug compendium Uruanna. It cannot be excluded though that “soiled rag” and *sikillu* are two different drugs with equivalent properties, and that both manuscripts present variants of the remedy.

The second tablet of the treatise on head ailments dealing mostly with different types of headaches, which are often attributed to ghosts, also offers a few remedies featuring “soiled rag” as an ingredient, here for amulets:

BAM 482 i 47'–48' // AMT 20/1+ (obv.!) i 34'–35':

If a man's temple afflicts him: you wrap 'soiled rag' with a woollen cord and tie (it) around the patient's temple.²⁰⁷

Similar amulets in the form of leather bags were prescribed against fever attacks:

BM 42272: 70, 76–77 (// BAM 315 i 34–35):

If ditto (a man is seized by fever [a second time]): (you place) *urānu*-fennel, 'nest of *labbinu*-fly', 'soiled rag' around his neck. ...

If ditto: snake skin, 'human bone', mother scorpion, 'soiled rag', black frit, *mūšu*-stone, *šašuntu*-plant (worn) in a leather bag.²⁰⁸

An interesting recipe for an ointment attested in several manuscripts was used against the “Hand of a ghost”, but one manuscript gives the “ban” (due to a broken oath) and fever as alternative uses of the prescription.²⁰⁹ The text lists twenty-five items, mostly plant and mineral ingredients, but closes with “human bone” and “soiled rag”, both of which seem to have been chosen to correspond with or underline the demonic nature of the illness or the agent causing the condition (serving as a sort of “signature element”).

Lastly, “soiled rag” is also a conspicuous ingredient in remedies for epilepsy and related conditions attributed to superhuman agents (demons or deities). A small Neo-Babylonian tablet gives a shortlist of nine drugs (Ú.HI.A) for a salve against epilepsy (AN.TA.ŠUB.BA, lit. “falling from heaven”-disease), consisting of six plants (such as juniper and tamarisk seed), followed by “human skull” (*gulgul*

or kiss in order to transfer the problem to the skull. BAM 311 collects recipes for protective and curative amulet bags for different purposes (epilepsy, depression, divine wrath).

²⁰⁷ Attia and Buisson 2003, 5. For a similar remedy see BAM 482 ii 1: ‘(If a man's temples hurt him) you put 'soiled rag', *mūšu*-stone, *mušallam*-stone(?), *kalgukku*-mineral(?) around his neck’ (Attia and Buisson 2003, 5; Worthington 2003, 18 ad line 65). Compare also the following recipe to calm down fever(?) in BAM 151: 12': “[If ditto:] you bind 'soiled rag' (and) 'donkey dung' on his left temple.” ([DIŠ KI.MIN] *tūgNÍG.DÁRA.ŠU.LÁL ŠURUN ANŠE ina SAG.KI GÜB-šu tarak-kás*).

²⁰⁸ Bácskay 2015, 7, 23; Scurlock 2014a, 414; Bácskay 2018, 127–128 (lines 39, 45–46). Cf. also AMT 19/2+63/2 ii 14'–16', using “soiled rag”, “human bone” (i. e. *ēdu*-plant) and sulphur among the ingredients in an ointment for fever (Bácskay 2018, 120–121).

²⁰⁹ BAM 199: 1–14 // BAM 471 ii 14'–18' // BAM 385 i 3'–11' (Scurlock 2006, No. 187b) and the variant AO 17615 (Labat 1960, 172–173 Scurlock 2006, No. 187c) listing 21 drugs including “soiled rag”. The three duplicating library texts qualify the remedy as “a secret of the conjurer's craft”.

amēlūti), “soiled rag” and “blood of a prisoner”.²¹⁰ Comparable therapies can be found in Tablet 28 of the *Diagnostic Handbook*, which deals with different forms of epilepsy and related conditions (such as “Hand of the goddess”, “Lord of the roof” and “Hand of a ghost”) “turning” into one another, i. e. with transformations of illness conditions within a group of “syndromes” sharing certain (e. g. neurological, mental or physical) symptoms.²¹¹ Interestingly, this text passage supplies for each case a matching prescription for a leather bag filled with varying ingredients, forming very similar assemblages of *materia medica* or *Dreckapotheke* as encountered in the therapeutic texts discussed so far. A noteworthy difference is a variant designation for the “soiled rag” of the therapeutic texts, namely “cloth with the blood of a woman who is hit (by the weapon)” (TÚG MÚD MUNUS ŠĪG) and “cloth with the blood of a woman who has *given birth* to a son” (TÚG MÚD MUNUS šá NITA Û¹.TU¹).²¹²

Diagnostic Handbook (TDP) Tablet 28: 4–6, 7–10:

If AN.TA.ŠUB.BA-epilepsy turns into ‘Hand of a ghost’ for him ... in order to save him: you wrap up *hašû*-plant, seed of *ušû*-ebony, a (piece of) cloth with the blood of a woman who is hit (by the weapon) and bone(s) of a wild animal into the skin of a virgin goat, you put it around his neck, and he will recover.

If AN.TA.ŠUB.BA-epilepsy turns into ‘Hand of the goddess’ for him ... in order to save him: you wrap up a (piece of) cloth with the blood of a woman who has given birth to a son, the eye of a corpse, dog’s tongue-plant, hair of a black dog, ‘dog fly’, a dragon-fly, hair of a male and female ape, root of *baltu*-thorn and *ašāgu*-thorn that has grown on a grave, *imbû tâmti* and *nikiptu*-plant into the skin of a virgin goat, ditto (you put it around his neck, and he will recover).

The expression “cloth with the blood of a woman who is hit (by the weapon)” (TÚG MÚD MUNUS ŠĪG) is reminiscent of the expression “woman who is hit by a weapon”, standing for a woman with a blood flow and is usually rendered as “menstrual rag/bandage” by modern translators, while the “cloth with the blood of a woman who has *given birth* to a son” (TÚG MÚD MUNUS šá NITA Û¹.TU¹), very likely has to be understood as a parallel to the “milk/urine of an impure woman who has given birth to a son” encountered above as a drug for epi-

²¹⁰ AO 17613, esp. line 7–10 (Labat 1960, 173–174). “Blood of a prisoner” (*dam kami*) is explained in a Late Babylonian medical commentary (BRM 4, 32: 7–8, cf. TCL 6, 34 i 6; Scurlock 2014a, 340, 342, 344, 716 parallels) as “blood of a leper” and second as “blood of an owl” (*dam qadi*). Several remedies for epilepsy recommend the use of various types of (animal) blood in potions and ointments, see Stol 1993, 105 and especially STT 286 ii 4–8 (a salve with blood of a dog, lion, wolf, wildcat, turtle); BAM 178: 5 // AMT 35/3: 5; SpTU 1, No. 50: 19; STT 1, 57: 11–13 // STT 286 9–13 (apotropaic mixture applied to the door posts containing e. g. the blood of a goose, dove, fox, gypsum, bitumen).

²¹¹ For this group of ailments associated with epilepsy and neurological/mental/psychological conditions and their characteristic symptoms, see Stol 1993, 5–53.

²¹² See Heeßel 2000, 307–309, 312–313, 315 notes with Stol 1993, 83; cf. Scurlock 2014a, 211–215.

lepsy.²¹³ Some of the ingredients, such as “dog fly” and “hair of a black dog”, are equated with plant names in Uruanna²¹⁴, but components such as “hair of a black dog” and hair or bone of a monkey are often encountered in remedies against ghost-induced ailments, expressing symbolic links with the netherworld, as does the *baltu-* and *ašāgu-*thorn growing on a grave.²¹⁵

We can compare the external applications (amulets, ointments) of “soiled rag” in Mesopotamian medicine with reports concerning the curative use of menstrual blood in Greco-Roman medical authors. For example, Chapter 28.23 of Pliny’s *Natural History* starts with a long section about the alleged harmful, destructive powers of menstrual blood, e.g. to spoil crops and foodstuffs, to stain mirrors (where Pliny draws on other authors and folk beliefs). In the following passage, however, he reports what he has heard or read concerning the usefulness of menstrual blood for certain conditions such as fever and epilepsy, citing three women (one of them a midwife) as authority:

On the other hand, again, many writers say that, baneful as it is, there are certain remedial properties in this fluid; that it is a good plan, for instance, to use it as a topical application for gout, and that women, while menstruating, can give relief by touching scrofulous sores, ..., inflamed tumours, erysipelas, boils, and defluxions of the eyes. According to Laïs and Salpe, the bite of a mad dog, as well as tertian or quartan fevers, may be cured by putting some menstuous blood in the wool of a black ram and enclosing it in a silver bracelet; and we learn from Diotimus of Thebes that the smallest portion will suffice of any kind of cloth that has been stained therewith, a thread even, if inserted and worn in a bracelet. The midwife Sotira informs us that the most efficient cure for tertian and quartan fevers is to rub the soles of the patient’s feet therewith, the result being still more successful if the operation is performed by the woman herself, without the patient being aware of it; she says, too, that this is an excellent method for reviving persons when attacked with epilepsy.²¹⁶

A few elements reported by Pliny are strikingly similar to Mesopotamian texts, for example the use of a cloth stained with menstrual blood reminiscent of the “soiled rag”, which is to be worn as a bracelet enclosed in silver (similar to the Mesopotamian leather bags). The use of menstrual blood to treat fever and epilepsy is likewise familiar from cuneiform sources, but most of the conditions given by Pliny differ from the Mesopotamian uses of “soiled rag”, an enigmatic drug used for a limited set of conditions, evoking a rich symbolism between blood, dirt, decay, life and death and liminal beings such as demons and ghosts.

²¹³ CTN 4, No. 72 and BAM 476. The latter text is a similar collection of therapeutic amulet bags as the passage from Tablet 28 of the *Diagnostic Handbook*.

²¹⁴ See Köcher 1955, No. 13: 10 // No. 15: 8 (*bukānu*); Uruanna III 598 (*nikiptu*).

²¹⁵ See Stol 1993, 83; Dunham 1985, 252–257 for discussion.

²¹⁶ Translation J. Bostock and H. T. Riley 1855, available at www.perseus.tufts.edu. For the use of menstrual blood in Greek healing and magic, see also Salvo 2021.

4. Conclusions

Several facets have evolved from the analysis of female blood and genital bleeding in Mesopotamian sources, which show that this body substance was regarded in contradictory and ambivalent ways in Mesopotamian culture. The medical texts use the expression “a woman’s blood” as the most common term which covers various phenomena from menstruation, to abnormal haemorrhage or postpartum discharges, but their focus lies on describing and treating abnormal, pathological discharges rather than discussing normal processes such as menstruation. Comparisons of women’s bleeding with abnormal genital discharges or haemorrhage in men suggests that processes in the male body could be explained and understood by analogy with the female body, reflecting a “two-gendered model of bleeding”. On the other hand, the very expression “a woman’s blood” and prescriptions which aim at inducing a flow of blood imply that female genital bleeding (as menstruation or postpartum blood) was regarded as something typical and as a normal process in female bodies, while in other contexts (stopping abnormal haemorrhage) it could entail associations with wounds inflicted by weapons and with the notion of human mortality tied to the substance blood in Mesopotamian creation myths. The rarer terms *sagû* and *maruštu* for “(menstrual) flow” implied that menstruation was seen as an unavoidable “trouble”, although the medical texts largely describe female genital bleeding in a neutral way, free of any notions of impurity. While bleeding during pregnancy (*nahšātu*) was portrayed as a potential danger to a woman’s (or her foetus’) life and health, the blood of a woman in childbirth was regarded as the female counterpart to male warriors’ shedding of blood in battle, presenting male and female roles in society as parallel.

On the other hand, female blood was described as a source of impurity with polluting power especially in contexts referring to postpartum women and (less often) to women suffering from bleeding during pregnancy, as is implied by the terms “dirty woman” and “impure woman” occurring in parallelism with the “woman in confinement” (*harištu*), who is further associated with the “soiled rag” (menstrual bandage) in lexical texts. While incantations speak of the bodies, clothes and menstrual rags of (postpartum or haemorrhaging) women in connection with washing, polluted water as well as dirty and decaying things, especially omen texts present exposure to these women as a threat to men’s ritual purity, interfering with cultic activities (e. g. offerings), rendering them unfit for contact with the divine sphere. As in other societies, body substances associated with reproductive processes (from procreative fluids to the blood of childbirth) may have been regarded as ambivalent in Mesopotamia, because they have a liminal quality and are linked to both life and death. The power associated with female blood was also harnessed to serve socially sanctified ends, in remedies against illnesses caused predominantly by evil demons and ghosts. Thus, the drug “soiled rag” (which may be an alias for the plant *sikillu*) and its use in prescriptions against

the baby-snatching demon Lamaštu, ghosts and conditions such as epilepsy associated with demonic possession or divine punishment, draws attention to the symbolic level of Mesopotamian drug lore and vocabulary. In these contexts, we encountered a rich array of drug designations alluding to animal and human body substances or materials such as “soiled rag”, which were regularly combined in prescriptions with strong-smelling ingredients and were applied to the margins of the body, both penetrating them and acting as a protective shield. These drugs played a key role as apotropaic materials to keep evil spirits and demons at distance, maybe because the association of these drugs with body secretions, dirt and decaying matter (through their names and attributed properties) bestowed on them an aura of power against forces of sickness and death.

Bibliography

- Abusch, Tzvi, and Daniel Schwemer (with Greta van Buylaere and Mikko Luukko). 2016. *Corpus of Mesopotamian Anti-Witchcraft Rituals. Vol. 2*. Leiden: Brill.
- Abusch, Tzvi, Daniel Schwemer, Mikko Luukko, and Greta van Buylaere. 2020. *Corpus of Mesopotamian Anti-Witchcraft Rituals. Vol. 3*. Leiden: Brill.
- Alster, Bendt. 1997. *Proverbs of Ancient Sumer: The World's Earliest Proverb Collections*. Bethesda: CDL Press.
- Ambos, Claus. 2012. “Purifying the King by Means of Prisoners, Fish, a Goose, and a Duck. Some Remarks on the Mesopotamian Notions of Purity.” In *How Purity Is Made*. Edited by Petra Rösch and Udo Simon. Wiesbaden: Harrassowitz. Pages 89–103.
- Arata, Luigi. 2005. “Menses in the *Corpus Hippocraticum*.” In *Menstruation. A Cultural History*. Edited by Andrew Shail and Gillian Howie. Basingstoke/New York: Palgrave Macmillan. Pages 13–24.
- Assante, Julia. 1998. “The karkíd/harimtu, Prostitute or Single Woman? A Reconsideration of the Evidence.” *Ugarit-Forschungen* 30: 5–96.
- Assante, Julia. 2007. “What Makes a Prostitute a Prostitute? Modern Definitions and Ancient Meanings.” *Historiae* 4: 117–132.
- Attia, Annie. 2015. “Traduction et commentaires des trois premières tablettes de la série IGI.” *Le Journal des Médecines Cunéiformes* 25: 1–120.
- Attia, Annie, and Gilles Buisson. 2003. “Édition de texte ‘Si le crâne d’un homme contient de la chaleur, deuxième tablette.’” *Le Journal des Médecines Cunéiformes* 1: 1–24.
- Attinger, Pascal. 1984. “Enki et Ninḫursāga.” *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 74: 1–52.
- Attinger, Pascal. 1993. *Éléments de linguistique sumérienne. La construction de du₁₁/e/di “dire”*. Fribourg: Editions Universitaires.
- Attinger, Pascal. 2007 [2015]. “La malédiction d’Agade (2.1.5).” No pages. Cited 7 December 2017. Online: http://www.iaw.unibe.ch/ueber_uns/amm_amp_va_personen/prof_dr_attinger_pascal#panel22850.
- Attinger, Pascal. 2008. “La médecine mésopotamienne.” *Le Journal des Médecines Cunéiformes* 11–12: 1–96.

- Attinger, Pascal. 2011 [2015]. "Enki and Ninhursaga (1.1.1)." No pages. Cited 7 December 2017. Online: http://www.iaw.unibe.ch/ueber_uns/amm_amp_va_personen/prof_dr_attinger_pascal#panel22850.
- Attinger, Pascal. 2013 [2017]. "Našše A (4.14.1)." No pages. Cited 7 December 2017. Online: http://www.iaw.unibe.ch/ueber_uns/amm_amp_va_personen/prof_dr_attinger_pascal#panel22850.
- Averbeck, Richard E. 1987. *A Preliminary Study of Ritual and Structure in the Cylinders of Gudea*. Ph.D. Dissertation. Dropsie College, University of Michigan, Ann Arbor.
- Bácskay, András. 2015. "Magical-medical prescriptions against fever: an edition of BM 42272." *Le Journal des Médecines Cunéiformes* 26: 1–32.
- Bácskay, András. 2018. *Therapeutic Prescriptions against Fever in Ancient Mesopotamia*. Alter Orient und Altes Testament 447. Münster: Ugarit-Verlag.
- Baynham, Justin T. L., Moorman, M. Allison, Donnellan, Catherine, Cevallos, Vicky, and Jeremy D. Keenan. 2013. "Antibacterial effect of human milk for common causes of paediatric conjunctivitis." *British Journal of Ophthalmology* 97,3: 377–379.
- Beck, Susanne. 2015. "Sāmānu as a Human Disease." *Le Journal des Médecines Cunéiformes* 26: 33–46.
- Beckman, Gary. 1983. *Hittite Birth Rituals*. Studien zu den Boğazköy-Texten 29. Wiesbaden: Harrassowitz.
- Behrens, Hermann. 1978. *Enlil und Ninlil. Ein sumerischer Mythos aus Nippur*. Rome: Biblical Institute Press.
- Bergmann, Claudia C. 2008. *Childbirth as a Metaphor for Crisis. Evidence from the Ancient Near East, the Hebrew Bible, and IQH XI, 1–18*. Berlin: De Gruyter.
- Biggs, Robert D. 1967. ŠĀ.ZI.GA. *Ancient Mesopotamian Potency Incantations*. Locust Valley: J. J. Augustin.
- Biggs, Robert D. 1987–1990. "Medizin. A. In Mesopotamien." In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 7. Edited by Dietz O. Edzard. Berlin: De Gruyter. Pages 623–629.
- Biggs, Robert D. 2006. "The Human Body and Sexuality in the Babylonian Medical Texts." In *Médecine et médecins au Proche-Orient ancien*. Edited by Laura Battini and Pierre Villard. Oxford: British Archaeological Reports. Pages 39–52.
- Bildhauer, Bettina. 2005. "The Secrets of Women (c. 1300): A Medieval Perspective on Menstruation." In *Menstruation. A Cultural History*. Edited by Andrew Shail and Gillian Howie. New York: Palgrave Macmillan. Pages 65–75.
- Böck, Barbara. 2000. *Die babylonisch-assyrische Morphoskopie*. Archiv für Orientforschung Beiheft 27. Horn: Institut für Altorientalistik der Universität Wien.
- Böck, Barbara. 2010. "Kontrazeption, Konzeption, Geburt, Frauenkrankheiten." In *Texte zur Heilkunde*. Texte aus der Umwelt des Alten Testaments, Neue Folge Band 5. Edited by Bernd Janowski and Daniel Schwemer. Gütersloh: Gütersloher Verlagshaus. Pages 107–114.
- Böck, Barbara. 2013. "Medicinal plants and medicaments used for conception, abortion, and fertility control in ancient Babylonia." *Journal Asiatique* 301: 27–52.
- Böck, Barbara. 2014. *The Healing Goddess Gula. Towards an Understanding of Ancient Babylonian Medicine*. Leiden: Brill.
- Bottéro, Jean. 1987–1990. "Magie A." In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 7. Edited by Dietz O. Edzard. Berlin: De Gruyter. Pages 200–234.
- Bradley, Mark, Victoria Leonard, and Laurence Totelin, eds. 2021. *Bodily Fluids in Antiquity*. London: Routledge.

- Buckley, Thomas, and Alma Gottlieb. 1988. "A Critical Appraisal of Theories of Menstrual Symbolism." In *Blood Magic: The Anthropology of Menstruation*. Edited by Thomas Buckley and Alma Gottlieb. Berkeley: University of California Press. Pages 1–50.
- Buckley, Thomas, and Alma Gottlieb, eds. 1988. *Blood Magic: The Anthropology of Menstruation*. Berkeley: University of California Press.
- Calame, Claude. 2014. "Itinéraires initiatiques et poésie rituelle en Grèce ancienne: Rites de passages pour adolescentes à Sparte." In *Life, Death, and Coming Age in Antiquity: Individual Rites of Passage in the Ancient Near East and Adjacent Regions*. Edited by Alice Mouton and Julie Patrier. Leiden: Nederlands Instituut voor het Nabije Oosten. Pages 463–479.
- Civil, Miguel. 2008. "A Sumerian Connective Particle and Its Possible Semitic Counterparts." *Aula Orientalis* 26: 7–15.
- Civil, Miguel, with the collaboration of Hans G. Güterbock, William W. Hallo, Harry A. Hoffner, and Erica Reiner. 1971. *Izi = išātu, Ká-gal = abullu and Níg-ga = makkūru. Materials for the Sumerian Lexicon* 13. Rome: Pontificium Institutum Biblicum.
- Classen, Constance, Howes, David, and Anthony Synnott. 1994. *Aroma: The Cultural History of Smell*. London: Routledge.
- Coker, Amy. 2021. "Fluid Vocabulary: Flux in the Lexicon of Bodily Emissions." In *Bodily Fluids in Antiquity*. Edited by Mark Bradley, Victoria Leonard and Lorence Totelin. London: Routledge. Pages 17–40.
- Collins, Timothy J. 1999. "Natural Illness in Babylonian Medical Incantations". Ph.D. diss., University of Chicago.
- Cooper, Jerold S. 1983. *The Curse of Agade*. Baltimore: Johns Hopkins University Press.
- Cooper, Jerold S. 2006–2008. "Prostitution." *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 11. Edited by Michael P. Streck. Berlin: De Gruyter. Pages 12–21.
- Couto-Ferreira, M. Érica. 2013. "The river, the oven, the garden: the female body and fertility in a Late Babylonian Ritual Text." *Approaching Rituals in Ancient Cultures*. Edited by Claus Ambos and Lorenzo Verderame. Pisa: Fabrizio Serra Editore. Pages 97–116.
- Couto-Ferreira, Érica and Agnès Garcia-Ventura. 2013. "Engendering Purity and Impurity in Assyriological Studies: A Historiographical Overview." *Gender and History* 25: 513–528.
- Crawford, Patricia. 1981. "Attitudes to Menstruation in Seventeenth-Century England." *Past & Present* 91: 47–73.
- Cunningham, Graham. 1997. *Deliver Me from Evil! Mesopotamian Incantations 2500–1500 B. C.* Rome: Editrice Pontificio Istituto Biblico.
- Dammery, Susan M. 2011. "First Blood: A Cultural Study of Menarche." Ph.D. diss., Monash University.
- De Zorzi, Nicla. 2019. "'Rude Remarks Not Fit to Smell': Negative Value Judgements Relating to Sensory Perceptions in Ancient Mesopotamia." In *Sounding Sensory Profiles in the Ancient Near East*. Edited by Annette Schellenberg and Thomas Krüger. Atlanta: SBL Press. Pages 217–252.
- Dean-Jones, Lesley. 1989. "Menstrual Bleeding According to the Hippocratics and Aristotle." *Transactions of the American Philological Association* 119: 177–191.
- Dean-Jones, Lesley. 1991. "The Cultural Construct to the Female Body in Classical Greek Science." In *Women's History and Ancient History*. Edited by Sarah B. Pomeroy. Chapel Hill/London: The University of North Carolina Press. Pages 111–137.
- Dean-Jones, Lesley. 1994. *Women's Bodies in Classical Greek Science*. Oxford: Oxford University Press.

- Delaney, Carol. 1988. "Mortal Flow: Menstruation in Turkish Village Society." *Blood Magic: The Anthropology of Menstruation*. Edited by Thomas Buckley and Alma Gottlieb Berkeley: University of California Press. Pages 75–93.
- Delaney, Janice, Lupton, Mary J., and Emily Toth. 1988. *The Curse: A Cultural History of Menstruation*. Revised edition. Urbana/Chicago: University of Illinois Press.
- Ditchey, Mallory. 2016. "Body Language: Tattooing and Branding in Ancient Mesopotamia." *Journal of Ancient Near Eastern History* 3,1: 1–24.
- Douglas, Mary. 1966. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. New York: Praeger.
- Douglas, Mary. 1975. *Implicit Meanings. Essays in Anthropology*. London: Routledge and K. Paul.
- Dunham, Sally. 1985. "The Monkey in the Middle." *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 75: 234–264.
- Ebeling, Erich. 1931. *Aus dem Leben eines assyrischen Zauberpriesters*. Mitteilungen der Altorientalischen Gesellschaft 5/3. Leipzig: Harrassowitz.
- Ebeling, Erich. 1953. *Die akkadische Gebetsserie "Handerhebung"*. Berlin: Akademie-Verlag.
- Edel, Elmar. 1976. *Ägyptische Ärzte und ägyptische Medizin am hethitischen Königshof. Neue Funde von Keilschriftbriefen Ramses' II. aus Boğazköy*. Opladen: Westdeutscher Verlag.
- Edzard, Dietz O. 1997. *Gudea and His Dynasty*. Vol. 3/1 of *Royal Inscriptions of Mesopotamia, Early Periods*. Toronto: University of Toronto Press.
- Eilberg-Schwartz, Howard. 1990. *The Savage in Judaism: An Anthropology of Israelite Religion and Ancient Judaism*. Bloomington: Indiana University Press.
- Emilianov, Vladimir V. 2013. "On the History of Sumerian (m)uzug: Orthography, Semantics and Etymology of the Word." In *Indo-European Linguistics and Classical Philology XVII (Joseph M. Tronsky Memorial Conference): Proceedings of the International Conference, St. Petersburg, 24–26 June 2013*. Edited by Nikolai N. Kasansky. St. Petersburg: Nauka. Pages 282–289 (Russian).
- Fales, Mario, ed. 2019. *La medicina assiro-babilonese, con la collaborazione di Francesca Minen*. Rome: Scienze e lettere.
- Farber, Walter. 1977. *Beschwörungsrituale an Ištar und Dumuzi. Atti Ištar ša ḫarmaša Dumuzi*. Wiesbaden: Steiner.
- Farber, Walter. 1989. *Schlaf, Kindchen, Schlaf! Mesopotamische Baby-Beschwörungen und -Rituale*. Winona Lake: Eisenbrauns.
- Farber, Walter. 1990. "Mannam lušpur ana Enkidu: some new thoughts about an old motif." *Journal of Near Eastern Studies* 49: 299–321.
- Farber, Walter. 2007. "Lamaštu – Agent of a Specific Disease or a General Destroyer of Health?" In *Disease in Babylonia*. Edited by Irving L. Finkel and Markham J. Geller. Leiden: Brill. Pages 137–145.
- Farber, Walter. 2014. *Lamaštu. An Edition of the Canonical Series of Lamaštu Incantations and Rituals and Related Texts from the Second and First Millennia B. C.* Winona Lake: Eisenbrauns.
- Feder, Yitzhaq. 2013. "Contagion and Cognition: Bodily Experience and the Conceptualization of Pollution (ṭum'ah) in the Hebrew Bible." *Journal of the Near Eastern Society* 72: 151–167.
- Feder, Yitzhaq. 2014. "The Semantics of Purity in the Ancient Near East: Lexical Meaning as a Projection of Embodied Experience." *Journal of Ancient Near Eastern Religions* 14: 87–113.

- Feder, Yitzhaq. 2016. "Defilement, Disgust, and Disease: The Experiential Basis of Hittite and Akkadian Terms for Impurity." *Journal of American Oriental Society* 136: 99–116.
- Feder, Yitzhaq. 2022. *Purity and Pollution in the Hebrew Bible: From Embodied Experience to Moral Metaphor*. Cambridge: Cambridge University Press.
- Finkel, Irving L. 1980 "The Crescent Fertile." *Archiv für Orientforschung* 27: 37–52.
- Finkel, Irving L. 1998. "A Study in Scarlet: Incantations against Samana." *Festschrift für Rykle Borger zu seinem 65. Geburtstag am 24. Mai 1995, tikip santakki mala bašmu* Edited by Stefan M. Maul. Groningen: Styx. Pages 71–97.
- Fonrobert, Charlotte E. 1995. "Women's Bodies, Women's Blood: The Politics of Gender in Rabbinic Literature." Ph.D. diss., The Graduate Theological Union, Berkeley.
- Fonrobert, Charlotte E. 2000. *Menstrual Purity: Rabbinic and Christian Reconstructions of Biblical Gender*. Stanford: Stanford University Press.
- Foster, Benjamin R. 2005. *Before the Muses. An Anthology of Akkadian Literature*. 3rd edition. Bethesda: CDL Press.
- Foxvog, Daniel A. 1995. "Sumerian Brands and Branding-Irons." *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 85: 1–7.
- Frandsen, Paul J. 2007. "The Menstrual 'Taboo' in Ancient Egypt." *Journal of Near Eastern Studies* 66: 81–106.
- Furth, Charlotte. 1999. *A Flourishing Yin: Gender in China's Medical History, 960–1665*. Berkeley: University of California Press.
- Furth, Charlotte, and Ch'en Shu-Yueh. 1992. "Medicine and the Anthropology of Menstruation in Contemporary Taiwan." *Medical Anthropology Quarterly* 6: 27–48.
- Garcia-Ventura, Agnès. 2013. "Sanitary towels in Ur III administrative texts?" *Aula Orientalis* 31: 235–248.
- Gell, Alfred. 1977. "Magic, Perfume, Dream" In *Symbols and Sentiments: Cross-cultural Studies in Symbolism*. Edited by Ioan Lewis. London: Academic Press. Pages 25–38.
- Geller, Markham J. 2005. *Renal and Rectal Disease Texts*. Die babylonisch-assyrische Medizin in Texten und Untersuchungen 7. Berlin: De Gruyter.
- Geller, Markham J. 2007a. "Incantations within Medical Texts." *The Babylonian World*. Edited by Gwendolyn Leick. London: Routledge. Pages 389–399.
- Geller, Markham J. 2007b. "Textes médicaux du Louvre, nouvelle édition: AO 11447, AO 7760 et AO 66774, première partie." *Le Journal des Médecines Cunéiformes* 10: 4–18.
- Geller, Markham J. 2009. "Textes médicaux du Louvre, nouvelle édition. Deuxième partie: AO 6774." *Le Journal des Médecines Cunéiformes* 14: 28–43.
- Geller, Markham J. 2010a. *Ancient Babylonian Medicine. Theory and Practice*. Malden: Wiley-Blackwell.
- Geller, Markham J. 2010b. "Augenkrankheiten." In *Texte aus der Umwelt des Alten Testaments. Neue Folge. Band 5. Texte zur Heilkunde*. Edited by Bernd Janowski and Daniel Schwemer. Gütersloh: Gütersloher Verlagshaus. Pages 61–63.
- Geller, Markham J. and Strahil V. Panayotov. 2020. *Mesopotamian Eye Disease Texts: The Nineveh Treatise*. Berlin: De Gruyter.
- George, Andrew R. 1990. Review O. R. Gurney, Literary and Miscellaneous Texts in the Ashmolean Museum (= Oxford Editions of Cuneiform Texts 11). *Zeitschrift für Assyriologie und vorderasiatische Archäologie* 80: 155–160.
- George, Andrew R. 1992. *Babylonian Topographical Texts*. Leuven: Peeters Press and Department Oriëntalistiek.
- George, Andrew R. 2013. *Babylonian Divinatory Texts Chiefly in the Schøyen Collection*. Bethesda: CDL Press.

- Gibson, McGuire, Hansen, Donald P., and Richard L. Zettler 1998–2001. “Nippur. B. Archäologisch.” In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 9. Edited by Dietz O. Edzard. Berlin: De Gruyter. Pages 546–565.
- Giessler, Julia, and Rosel Pientka-Hinz. 2011–2013. “Tätowierung.” In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 13. Edited by Michael Streck et al. Berlin: De Gruyter. Pages 399–400.
- Glassner, Jean-Jacques. 2014. “Rites de passage en Mésopotamie: Le rôle d’Inanna-Ištar.” In *Life, Death, and Coming of Age in Antiquity: Individual Rites of Passage in the Ancient Near East and Adjacent Regions*. Edited by Alice Mouton and Julie Patrier. Leiden: Nederlands Instituut voor het Nabije Oosten. Pages 507–520.
- Götting, Eva. 2009. *Lamaštu. Ikonographie einer altorientalischen Dämonin*. MA Thesis, Freie Universität Berlin.
- Goodnick Westenholz, Joan. 1989. “Tamar, Qēdēšā, Qadištu and Sacred Prostitution.” *Harvard Theological Review* 82: 245–266.
- Goodnick Westenholz, Joan. 1996. “Symbolic Language in Akkadian Narrative Poetry: The Metaphorical Relationship between the Poetical Image and the Real World.” In *Mesopotamian Poetic Language: Sumerian and Akkadian*. Edited by Marianna E. Vogelzang and Herman L. J. Vanstiphout. Groningen: Styx. Pages 183–206.
- Goodnick Westenholz, Joan. 2009. “Construction of Masculine and Feminine Ritual Roles in Mesopotamia.” *Ehrenmord und Emanzipation: Die Geschlechterfrage in Ritualen von Parallelgesellschaften*. Berlin: LIT. Pages 73–98.
- Grahn, Judy. 2010. “Ecology of the Erotic in a Myth of Inanna.” *International Journal of Transpersonal Studies* 29: 58–67.
- Green, Monica H. 2005. “Flowers, Poisons and Men: Menstruation in Medieval Western Europe.” In *Menstruation: A Cultural History*. Edited by Andrew Shail and Gillian Howie. Basingstoke/New York: Palgrave Macmillan. Pages 61–64.
- Guichard, Michaël, and Lionel Marti. 2013. “Purity in Ancient Mesopotamia: The Paleo-Babylonian and Neo-Assyrian Period.” In *Purity and the Forming of Religious Traditions in the Ancient Mediterranean World and Ancient Judaism*. Edited by Christian Frevel and Christophe Nihan. Leiden: Brill. Pages 47–113.
- Guinan, Ann K. 1997. “Auguries of Hegemony: The Sex Omens of Mesopotamia.” *Gender and History* 9,3: 462–479.
- Guinan, Ann K. 2002. “Erotomancy: Scripting the Erotic.” *Sex and Gender in the Ancient Near East. Proceedings of the 47th Rencontre Assyriologique Internationale, Helsinki, July, 2–6, 2001*. Edited by Simo Parpola and Robert M. Whiting. Helsinki: The Neo-Assyrian Text Corpus Project. Pages 185–201.
- Hammons, Meredith B. 2008. *Before Joan of Arc: Gender Identity and Heroism in Ancient Mesopotamian Birth Rituals*. Nashville: Vanderbilt University. Cited 1 January 2015. Online: <http://etd.library.vanderbilt.edu/available/etd-03312008-094229/>.
- Hanson, Anne E. 1992. “Conception, Gestation, and the Origin of Female Nature in the *Corpus Hippocraticum*.” *Helios* 19: 31–71.
- Haul, Michael. 2009. *Stele und Legende. Untersuchungen zu den keilschriftlichen Erzählwerken über die Könige von Akkade*. Göttingen: Universitätsverlag Göttingen.
- Heeßel, Nils P. 2000. *Babylonisch-assyrische Diagnostik*. Münster: Ugarit-Verlag.
- Heeßel, Nils P. 2006. “Der verschwiegene Unterschied: Die Geschlechterdifferenz in medizinischen Texten aus dem Alten Mesopotamien.” In *Krankheit und Heilung. Gender – Religion – Medizin*. Edited by Bernhard Heininger and Ruth Lindner. Berlin: LIT Verlag. Pages 9–24.

- Heeßel, Nils P. 2007. *Divinatorische Texte I. Terrestrische, teratologische, physiognomische und oneiromantische Omina*. Keilschrifttexte literarischen Inhalts aus Assur 1. Wiesbaden: Harrassowitz.
- Heeßel, Nils P. 2010. "Erkrankungen der Ohren, der Nase und Atemwege, des Mundes, der Zunge und der Zähne." In *Texte aus der Umwelt des Alten Testaments, Neue Folge 5, Texte zur Heilkunde*. Edited by Bernd Janowski and Daniel Schwemer. Gütersloh: Gütersloher Verlagshaus. Pages 52–61.
- Heeßel, Nils P. 2012. *Divinatorische Texte II. Opferschau-Omina*. Keilschrifttexte aus Assur literarischen Inhalts 5. Wiesbaden: Harrassowitz.
- Hirschberg, Julius, and Frederick C. Blodi. 1982. *The History of Ophthalmology*, Vol. 1, Antiquity. Bonn: Verlag J. P. Warenborgh.
- Houppert, Karen. 2000. *The Curse: Confronting the Last Unmentionable Taboo: Menstruation*. London: Profile.
- Howes, David. 1987. "Olfaction and Transition: An essay on the ritual uses of smell." *Canadian Review of Sociology and Anthropology* 24: 398–416.
- Hrůša, Ivan. 2010. *Die akkadische Synonymliste malku = šarru. Eine Textedition mit Übersetzung und Kommentar*. Münster: Ugarit-Verlag.
- Hunger, Hermann. 1976. *Spätbabylonische Texte aus Uruk. Teil I*. Berlin: Gebr. Mann Verlag.
- Hunziker-Rodewald, Regine. 2020. "And God ... Created Woman": Imagined in Terms of a Moulding Process." In *Eigensinn und Entstehung der hebräischen Bibel. Erhard Blum zum siebzigsten Geburtstag*. Edited by Joachim J. Krause, Wolfgang Oswald and Kristin Weingard. Tübingen: Mohr Siebeck. Pages 477–496.
- Hutter, Manfred. 1985. *Altorientalische Vorstellungen von der Unterwelt: Literar- und religionsgeschichtliche Überlegungen zu 'Nergal und Ereškigal'*. Göttingen: Vandenhoeck & Ruprecht.
- Ibhanesebor, Samuel E. and E. S. Otofo. 1996. "In Vitro Activity of Human Milk against the Causative Organisms of Ophthalmia Neonatorum in Benin City, Nigeria." *Journal of Tropical Pediatrics* 42: 327–329.
- Janowski, Bernd, and Gernot Wilhelm, eds. 2008. *Texte aus der Umwelt des Alten Testaments. Neue Folge Band 4. Omina, Orakel, Rituale und Beschwörungen*. Gütersloh: Gütersloher Verlagshaus.
- Janowski, Bernd, and Daniel Schwemer, eds. 2010. *Texte aus der Umwelt des Alten Testaments. Neue Folge. Band 5. Texte zur Heilkunde*. Gütersloh: Gütersloher Verlagshaus.
- Janssen, Rosalind. 2021. "A Valid Excuse for a Day Off Work: Menstruation in an Ancient Egyptian Village." In *Bodily Fluids in Antiquity*. Edited by Mark Bradley, Victoria Leonard and Lorence Totelin. London: Routledge. Pages 43–56.
- Kilmer, Anne D. 1993–1997. "Musik. A. II." In *Reallexikon der Assyriologie und vorderasiatischen Archäologie* 8. Edited by Dietz Otto Edzard. Berlin: De Gruyter. Pages 463–482.
- King, Helen. 1983. "Bound to Bleed: Artemis and Greek Women." In *Images of Women in Antiquity*. Edited by Averil Cameron and Amelie Kuhrt. London/Canberra: Croom Helm. Pages 109–127.
- King, Helen. 1998. *Hippocrates' Woman: Reading the Female Body in Ancient Greece*. London/New York: Routledge.
- Kinnier Wilson, James V. 1957. "Two Medical Texts from Nimrud (Continued)." *Iraq* 19: 40–49.
- Köcher, Franz. 1955. *Keilschrifttexte zur assyrisch-babylonischen Drogen- und Pflanzenkunde*. Berlin: Akademie Verlag.

- Köcher, Franz. 1971. *Die babylonisch-assyrische Medizin in Texten und Untersuchungen IV. Keilschrifttexte aus Assur 4, Babylon, Nippur, Sippar, Uruk und unbekannter Herkunft*. Berlin: De Gruyter.
- Köcher, Franz. 1995. "Ein Text medizinischen Inhalts aus dem neubabylonischen Grab 405." In *Uruk. Die Gräber*. Ausgrabungen in Uruk-Warka, Endberichte 10. Edited by Boehmer, Rainer M., Pedde, Friedhelm and Beate Salje. Mainz am Rhein: von Zabern. Pages 203–217.
- Köcher Franz. and A. Leo Oppenheim. 1957–1958. "The Old-Babylonian Omen Text VAT 7525." *Archiv für Orientforschung* 18: 62–80.
- Labat, René. 1950. "La pharmacopée au service de la piété (tablette assyrienne inédite)." *Semítica* 3: 5–18.
- Labat, René. 1957–1971. "Geburt." In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 3. Edited by Ernst Weidner and Wolfram von Soden. Berlin: De Gruyter. Pages 178–179.
- Labat, René. 1960. "Ordonnances médicales ou magiques." *Revue d'assyriologie et d'archéologie orientale* 54: 169–176.
- Lafont, Bertrand. 1987. "A propos de l'absence cyclique des femmes." *Nouvelles assyriologiques brèves et utilitaires* 1987: 24–25 No. 45.
- Lambert, Wilfred G. 1960. *Babylonian Wisdom Literature*. Oxford: Oxford University Press.
- Lambert, Wilfred G. 1969. "A Middle Assyrian Medical Text." *Iraq* 31: 28–39 and Pl. V–VI.
- Lambert, Wilfred G., and Alan R. Millard. 1969. *Atra-ḫasis: the Babylonian Story of the Flood*. Oxford: Clarendon.
- Landsberger, Benno, Reiner, Erica, and Miguel Civil. 1970. *The Series HAR-ra = ḫubullu. Tablets XVI, XVII, XIX and Related Texts*. Materials for the Sumerian Lexicon 12. Rome: Pontificium Institutum Biblicum.
- Larsen, Mogens T. 1976. *The Old Assyrian City-State and Its Colonies*. Copenhagen: Akademisk Forlag.
- Leach, Edward. 1972. "Anthropological aspects of language: Animal categories and verbal abuse." In *Mythology*. Edited by Pierre Maranda. Harmondsworth: Penguin. Pages 39–67.
- Lefèvre-Novaro, Daniela and Ian Rutherford. 2014. "Rites of Passages and Purification in Greece and the Aegean: Second and First Millennia BC." In *Life, Death, and Coming Age in Antiquity: Individual Rites of Passage in the Ancient Near East and Adjacent Regions*. Edited by Alice Mouton and Julie Patrier. Leiden: Nederlands Instituut voor het Nabije Oosten. Pages 453–462.
- Leitz, Christian. 1999. *Magical and Medical Papyri of the New Kingdom*. London: British Museum Press.
- Lennon, Jack. 2010. "Menstrual Blood in Ancient Rome: An Unspeakable Impurity?" *Classica et Mediaevalia* 61: 71–87.
- Lewis, Gilbert. 1980. *Day of Shining Red: An Essay in Understanding Ritual*. Cambridge: Cambridge University Press.
- Malul, Meir. 1986. "'Sissiktu' and 'sikku': Their Meaning and Function." *Bibliotheca Orientalis* 43: 20–36.
- Malul, Meir. 2002. *Knowledge, Control and Sex: Studies in Biblical Thought, Culture and World View*. Tel Aviv/Jaffa: Archaeological Center Publication.
- Martin, Emily. 2001. "Medical Metaphors of Women's Bodies: Menstruation and Menopause." In *The Woman in the Body: A Cultural Analysis of Reproduction*. Boston: Beacon Press. Pages 27–53.

- Maul, Stefan M. 2018. "‘Ninurta-Duft’ oder: Von den Vorsichtsmaßnahmen, die ein mesopotamischer Heiler ergreifen sollte, bevor er einen erkrankten Patienten aufsuchte." *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 108: 175–191.
- Mayer, Werner. 1993. "Das Ritual BMS 12 mit dem Gebet ‘Marduk 5.’" *Orientalia Nova Series* 62: 313–337.
- McClive, Cathy. 2005. "Menstrual Knowledge and Medical Practice in Early Modern France, c. 1555–1761." In *Menstruation. A Cultural History*. Edited by Andrew Shail and Gillian Howie. Basingstoke/New York: Palgrave Macmillan. Pages 76–89.
- Meeks, T J. 1920. "Some Explanatory Lists and Grammatical Texts." *Revue d'assyriologie et d'archéologie orientale* 17: 117–206.
- Meigs, Anna S. 1978. "A Papuan Perspective on Pollution." *Man* 13: 304–318.
- Milgrom, Jacob. 1993. "The Rationale for Biblical Impurity." *Journal of the Ancient Near Eastern Society* 22: 107–111.
- Minen, Francesca. 2019. "Discendenza, gravidanza e nascita in Mesopotamia antica: i testi ostetrico-ginecologici." In *La medicina assiro-babilonese*. Edited by Mario Fales, con la collaborazione di Francesca Minen. Rome: Scienze e lettere. Pages 167–204.
- Mouton, Alice. 2008. *Les rituels de naissance kizzuwatniens: un exemple de rite de passage en Anatolie Hittite*. Paris: De Boccard.
- Mouton, Alice. 2012. "Le concept de pureté/impureté en Anatolie Hittite." In *How Purity Is Made*. Edited by Petra Rösch and Udo Simon. Wiesbaden: Harrasowitz. Pages 69–87.
- Mouton, Alice. 2014. "Liminarité, impureté et franchissements rituels en Anatolie Hittite." In *Life, Death, and Coming of Age in Antiquity: Individual Rites of Passage in the Ancient Near East and Adjacent Regions*. Edited by Alice Mouton and Julie Patrier. Leiden: Nederlands Instituut voor het Nabije Oosten. Pages 441–452.
- Nougayrol, Jean. 1949. "Conjuration ancienne contre Samanu." *Archiv Orientalní* 17/3–4: 213–226 and Pl. III–V.
- Oshima, Takayoshi. 2011. *Babylonian Prayers to Marduk*. Tübingen: Mohr Siebeck.
- Parker, Robert. 1983. *Miasma. Pollution and Purification in Early Greek Religion*. Oxford: Clarendon Press.
- Parkin, David. 2007. "Wafting on the wind: smell and the cycle of spirit and matter." In *Wind, Life, Health: Anthropological and Historical Perspectives*. Edited by Elisabeth Hsu and Chris Low. *Journal of the Royal Anthropological Institute* (N.S.) 13: 39–53.
- Philip, Tarja S. 2006. *Menstruation and Childbirth in the Bible: Fertility and Impurity*. Studies in Biblical Literature 88. New York: Peter Lang.
- Pommerening, Tanja. 2015. "Milch einer Frau, die einen Knaben geboren hat." In *Proceedings of the Tenth International Congress of Egyptologists, University of the Aegean, Rhodes 22–29 May 2008, Vol. II*. Edited by Panagiotis Kousoulis and Nikolaos Lazaridis. Leuven: Peeters. Pages 2083–2095.
- Pomponio, Francesco. 2010. "New Texts Regarding the Neo-Sumerian Textiles." In *Textile Terminologies in the Ancient Near East and Mediterranean from the Third to the First Millennium BC*. Edited by Cecile Michel and Marie-Louise Nosch. Oxford/Oakville: Oxbow Books. Pages 186–200.
- Ponchia, Simonetta and Mikko Luukko. 2013. *The Standard Babylonian Myth of Nergal and Ereškigal. Introduction, Cuneiform Text and Transliteration, with a Translation, Glossary and Commentary*. Helsinki: The Neo-Assyrian Text Corpus Project.
- Pringle, Jackie. 1983. "Hittite Birth Rituals." In *Images of Women in Antiquity*. Edited by Averil Cameron and Amelie Kuhrt. London/Canberra: Croom Helm. Pages 128–141.

- Rainey, Anson F. 2015. *The El-Amarna Correspondence: A New Edition of the Cuneiform Letters from the Site of El-Amarna Based on Collations on All Extant Tablets*. 2 Vols. Leiden: Brill.
- Read, Sara. 2013. *Menstruation and the Female Body in Early Modern England*. Basingstoke/New York: Palgrave Macmillan.
- Reynolds, Frances S. 1996. Review of Mark E. Cohen, *The Cultic Calendars of the Ancient Near East*, CDL Press, Bethesda, 1993. *Bibliotheca Orientalis* 53: 89–95.
- Reynolds, Frances S. 2010. “A divine body: new joins in the Sippar Collection.” In *Your Praise Is Sweet. A Memorial Volume for Jeremy Black from Students, Colleagues and Friends*. Edited by Heather D. Baker, Eleanor Robson and Gábor Zólyomi. London: British Institute for the Study of Iraq. Pages 291–302.
- Robson, Eleanor. 2008. “Mesopotamian Medicine and Religion: Current Debates, New Perspectives.” *Religion Compass* 2: 455–483.
- Roth, Martha. 1997 *Law Collections from Mesopotamia and Asia Minor*. Second edition. Atlanta: Scholars Press.
- Roth, Martha. 2006. “Marriage, Divorce, and the Prostitute in Ancient Mesopotamia.” In *Prostitutes and Courtesans of the Ancient World*. Edited by Christopher A. Faraone and Laura K. McClure. Madison: University of Wisconsin Press. Pages 21–39.
- Rumor, Maddalena. 2017. “The ‘AŠ-section’ of Uruanna III in Partitur.” *Journal des Médecines Cunéiformes* 29: 1–34.
- Rumor, Maddalena. 2020a. “Dreck-, Deck- or What the Heck?” *Le Journal des Médecines Cunéiformes* 36: 37–53.
- Rumor, Maddalena. 2020b. “Akkadian *Sikillu* and Greek Σκίλλα in Their Medical and Magico-ritual Contexts.” In *Patients and Performative Identities: At the Intersection of the Mesopotamian Technical Disciplines and Their Clients*. Edited by J. Cale Johnson. University Park: Eisenbrauns. Pages 169–192.
- Sallaberger, Walter. 2006–2008. “Reinheit. A. Mesopotamian.” In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 11. Edited by Michael P. Streck et al. Berlin: De Gruyter. Pages 295–299.
- Sallaberger, Walter. 2011. “Körperliche Reinheit und soziale Grenzen.” In *Reinheit*. Edited by Peter Burschel and Christoph Marx. Vienna: Böhlau. Pages 17–45.
- Sallaberger, Walter, and Fabienne Huber Vulliet. 2003–2005. “Priester. A. I. Mesopotamien.” In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 10. Edited by Dietz O. Edzard, Michael P. Streck et al. Berlin: De Gruyter. Pages 617–640.
- Salvo, Irene. 2021. “Uterine, Bleeding, Knowledge, and Emotion in Ancient Greek Medical and Magical Representations.” In *Bodily Fluids in Antiquity*. Edited by Mark Bradley, Victoria Leonard and Lorence Totelin. London: Routledge. Pages 57–74.
- Scheper-Hughes, Nancy and Margaret Lock. 1987. “The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology.” *Medical Anthropology Quarterly* 1: 6–41.
- Schuster-Brandis, Anais. 2008. *Steine als Schutz- und Heilmittel. Untersuchung zu ihrer Verwendung in der Beschwörungskunst Mesopotamiens im 1. Jt. v. Chr.* Münster: Ugarit-Verlag.
- Schwemer, Daniel. 2011. “Magic Rituals: Conceptualization and Performance.” In *The Oxford Handbook of Cuneiform Culture*. Edited by Karen Radner and Eleanor Robson. Oxford: Oxford University Press. Pages 419–441.
- Schwemer, Daniel. 2014. “‘Form Follows Function’? Rhetoric and Poetic Language in First Millennium Akkadian Incantations.” *Die Welt des Orients* 44: 263–288.

- Scurlock, JoAnn. 1991. "Baby-snatching demons, restless souls and the danger of childbirth: Medico-magical means of dealing with some of the perils of motherhood in Ancient Mesopotamia." *Incognita* 2: 137–185.
- Scurlock, JoAnn. 2006. *Magico-medical Means of Treating Ghost-induced Illnesses in Ancient Mesopotamia*. Leiden: Brill.
- Scurlock, JoAnn. 2014a. *Sourcebook for Ancient Mesopotamian Medicine*. Atlanta: SBL Press.
- Scurlock, JoAnn. 2014b. "Medicine and Healing Magic." In *Women in the Ancient Near East: A Sourcebook*. Edited by Mark W. Chavalas. London: Routledge. Pages 101–143.
- Scurlock, JoAnn, and Burton R. Andersen. 2005. *Diagnoses in Assyrian and Babylonian Medicine. Ancient Sources, Translations, and Modern Medical Analyses*. Urbana: University of Illinois Press.
- Sefati, Yitzhaq. 1998. *Love Songs in Sumerian Literature*. Ramat Gan: Bar-Ilan University Press.
- Shail, Andrew, and Gillian Howie. 2005. "Introduction: 'Talking Your Body's Language': The Menstrual Materialisations of Sexed Ontology." In *Menstruation: A Cultural History*. Edited by Andrew Shail and Gillian Howie. New York: Palgrave Macmillan. Pages 1–10.
- Shail, Andrew, and Gillian Howie, eds. 2005. *Menstruation: A Cultural History*. New York: Palgrave Macmillan.
- Sjöberg, Åke W. 1973. "Der Vater und sein missratener Sohn." *Journal of Cuneiform Studies* 25: 105–169.
- Sridhar, Nithin. 2019. *The Sabrimala Confusion: Menstruation Across Cultures – A Historical Perspective*. New Dehli: Vitasta Publishing.
- Stadhouders, Henry. 2011. "The Pharmacopoeial Handbook *Šammu šikinšu* – An edition." *Le Journal des Médecines Cunéiformes* 18: 3–51.
- Steible, Horst. 1991. *Die neusumerischen Bau- und Weihinschriften, 1. Inschriften der II. Dynastie von Lagaš*. Stuttgart: Steiner.
- Steinert, Ulrike. 2012. "K. 263+10934, A Tablet with Recipes against the Abnormal Flow of a Woman's Blood." *Sudhoffs Archiv* 96: 64–94.
- Steinert, Ulrike. 2013. "Fluids, Rivers, and Vessels: Metaphors and Body Concepts in Mesopotamian Gynaecological Texts." *Le Journal des Médecines Cunéiformes* 22: 1–23.
- Steinert, Ulrike. 2014. "City Streets: Reflections on Urban Society in the Cuneiform Sources of the 2nd and 1st Millennium BCE." *The Fabric of Cities. Aspects of Urbanism, Urban Topography and Society in Mesopotamia, Greece and Rome*. Edited by Natalie N. May and Ulrike Steinert. Leiden/Boston: Brill. Pages 123–69.
- Steinert, Ulrike. 2016. Review of Walter Farber, *Lamaštu. An Edition of the Canonical Series of Lamaštu Incantations and Rituals and Related Texts from the Second and First Millennia B. C. (Mesopotamian Civilizations 17)*. Winona Lake: Eisenbrauns, 2014. *Zeitschrift für Assyriologie* 106: 240–251.
- Steinert, Ulrike. 2017a. "Cows, Women and Wombs: Interrelations between Texts and Images from the Ancient Near East." In *From the Four Corners of the Earth: Studies in Iconography and Cultures of the Ancient Near East in Honour of F. A. M. Wiggermann*. Edited by David Kertai and Olivier Nieuwenhuyse. Münster: Ugarit-Verlag. Pages 205–258.
- Steinert, Ulrike. 2017b. "Concepts of the Female Body in Mesopotamian Gynecological Texts." In *The Comparable Body. Analogy and Metaphor in Ancient Mesopotamian, Egyptian, and Greco-Roman Medicine*. Edited by John Z. Wee. Leiden: Brill. Pages 275–357.
- Steinert, Ulrike, ed. 2018. *Assyrian and Babylonian Scholarly Text Catalogues: Medicine, Magic and Divination*. Berlin: De Gruyter.

- Steinert, Ulrike. 2020. "Healing substances and therapies in Mesopotamian women's health care texts." *Le Journal des Médecines Cunéiformes* 36: 54–72.
- Steinert, Ulrike. 2022. "Sensory Experience in Ancient Mesopotamian Medicine." In *The Routledge Handbook of the Senses in the Ancient Near East*. Edited by Kiersten Neumann and Allison Thomason. London: Routledge. Pages 489–516.
- Steinert, Ulrike. In preparation. *Women's Healthcare in Ancient Mesopotamia: An Edition of the Textual Sources*. Berlin: De Gruyter.
- Steinkeller, Piotr. 2022. "On Prostitutes, Midwives and Tavern-Keepers in Third Millennium BC Babylonia." *KASKAL – Rivista di storia, ambienti e culture del Vicino Oriente Antico* 19: 1–38.
- Stol, Marten. 1993. *Epilepsy in Babylonia*. Groningen: Styx.
- Stol, Marten. 1998–2001. "Nippur. A.II. Altbabylonisch." In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 9. Edited by Dietz O. Edzard. Berlin: De Gruyter. Pages 539–544.
- Stol, Marten. 2004. "Wirtschaft und Gesellschaft in altbabylonischer Zeit." In *Mesopotamien. Die altbabylonische Zeit*. By Dominique Charpin, Dietz O. Edzard and Marten Stol. *Orbis Biblicus et Orientalis* 160/4. Fribourg: Academic Press. Pages 643–975.
- Stol, Marten. 2000. *Birth in Babylonia and the Bible: its Mediterranean Setting*. Groningen: Styx.
- Stol, Marten. 2003–2005. "Pflanzenkunde. A. Nach schriftlichen Quellen." In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 10. Edited by Dietz O. Edzard and Michael P. Streck. Berlin: De Gruyter. Pages 503–506.
- Stol, M. 2012. *Vrouwen van Babylon. Prinsessen, priesteressen, prostituees in de bakermat van de cultuur*. Utrecht: Uitgeverij Kok.
- Stol, Marten. 2016. *Women in the Ancient Near East*. Berlin: De Gruyter.
- Stolberg, Michael. 2005. "Menstruation and Sexual Difference in Early Modern Medicine." In *Menstruation: A Cultural History*. Edited by Andrew Shail and Gillian Howie. New York: Palgrave Macmillan. Pages 90–101.
- Strassmann, Beverly I. 1997. "The Biology of Menstruation in Homo sapiens: Total Lifetime Menses, Fecundity, and Nonsynchrony in a Natural-Fertility Population." *Current Anthropology* 38: 123–129.
- Strauss, Rita. 2006. *Reinigungsrituale aus Kizzuwatna. Ein Beitrag zur Erforschung hethitischer Ritualtradition und Kulturgeschichte*. Berlin/New York: De Gruyter.
- Thureau-Dangin, François. 1921. "Rituel et amulettes contre Labartu." *Revue d'assyriologie et d'archéologie orientale* 18: 161–198.
- Van der Toorn, Karel. 1985. *Sin and Sanction in Israel and Mesopotamia. A Comparative Study*. Assen: Van Gorcum.
- Van der Toorn, Karel. 1989. "La pureté rituelle au Proche-Orient ancien." *Revue de l'histoire des religions* 206,4: 339–356.
- Vogel, Helga. 2014. "Mädchen in den altorientalischen Quellen." In *Mädchen im Altertum/ Girls in Antiquity*. Edited by Susanne Moraw and Anna Kieburg. Münster: Waxmann. Pages 79–90.
- Volk, Konrad. 1995. *Inanna und Šukaletuda. Zur historisch-politischen Bedeutung eines sumerischen Literaturwerkes*. Wiesbaden: Harrassowitz.
- Von Staden, Heinrich. 1992. "Women and Dirt." *Helios* 19: 7–30.
- Von Weiher, Egbert. 1993. *Uruk: Spätbabylonische Texte aus dem Planquadrat U 18. Teil IV. Spätbabylonische Texte aus Uruk IV. Ausgrabungen in Uruk-Warka, Endberichte* 12. Mainz: von Zabern.

- Vostral, Sharra L. 2005. "Masking Menstruation: The Emergence of Menstrual Hygiene Products in the United States." In *Menstruation: A Cultural History*. Edited by Andrew Shail and Gillian Howie. New York: Palgrave Macmillan. Pages 243–258.
- Waetzoldt, Hartmut. 1980–1983. "Kleidung. A. Philologisch." In *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 6. Edited by Dietz O. Edzard. Berlin: De Gruyter. Pages 18–31.
- Waetzoldt, Hartmut. 1988. "Die Situation der Frauen und Kinder anhand ihrer Einkommensverhältnisse zur Zeit der III. Dynastie von Ur." *Altorientalische Forschungen* 15: 30–44.
- Wasserman, Nathan. 2019. "Mesopotamian Underwear and Undergarments." In *Mélanges Assyriologiques en l'Honneur de Dominique Charpin*. Edited by Grégory Chambon, Michaël Guichard and Anne-Isabelle Langlois. Leuven: Peeters. Pages 1125–1144.
- Wee, John Z. 2017. "Pan-astronomical Hermeneutics and the Arts of the Lamentation Priest." *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 107,2: 236–260.
- Wee, John Z. 2019. *Mesopotamian Commentaries on the Diagnostic Handbook Sa-gig. Edition and Notes on Medical Lexicography*. Cuneiform Monographs 49/2. Leiden: Brill.
- Weidner, Ernst. 1954–1956. "Hof- und Harems-Erlasse assyrischer Könige aus dem 2. Jahrtausend v. Chr." *Archiv für Orientforschung* 17: 257–293.
- Wenham, Gordon J. 1983. "Why Does Sexual Intercourse Defile (Lev 15, 18)?" *Zeitschrift für Alttestamentliche Wissenschaft* 95: 432–434.
- Westendorf, Wolfhart. 1999. *Handbuch der altägyptischen Medizin*. 2 Vols. Leiden: Brill.
- Wiggermann, Frans A. M. 2000. "Lamaštu, Daughter of Anu. A Profile." In *Birth in Babylonia and the Bible: Its Mediterranean Setting*. Edited by Marten Stol. Groningen: Styx. Pages 217–252.
- Wilms, Sabine. 2005. "The Art and Science of Menstrual Balancing in Early Medieval China." In *Menstruation: A Cultural History*. Edited by Andrew Shail and Gillian Howie. New York: Palgrave Macmillan. Pages 38–50.
- Wilms, Sabine. 2006. "'Ten Times More Difficult to Treat': Female Bodies in Medical Texts from Early Imperial China." In *Medicine for Women in Imperial China*. Edited by Angela K. C. Leung. Leiden: Brill. Pages 74–107.
- Winslow, Deborah. 1980. "Rituals of First Menstruation in Sri Lanka." *Man* 15: 603–625.
- Wolkenstein, Diane, and Samuel N. Kramer. 1983. *Inanna, Queen of Heaven and Earth: Her Stories and Hymns from Sumer*. New York: Harper & Row.
- Worthington, Martin. 2003. "Propositions de lecture pour UGU 2." *Le Journal des Médecines Cunéiformes* 2: 18.
- Zisa, Gioele. 2021. *The Loss of Male Sexual Desire in Ancient Mesopotamia: Niš Libbi Therapies*. Berlin: De Gruyter.

Works by Greco-Roman authors

- Dioscorides, *De materia medica. Being an herbal with many other medicinal materials written in Greek in the first century of the Common Era*. A new indexed version in modern English by Tess A. Osbaldeston and Robert P. A. Wood. Johannesburg: IBIDIS, 2000.
- Pliny the Elder, *The Natural History of Pliny. Translated, with copious notes and illustrations, by the late John Bostock and H. T. Riley*. London: Henry G. Bone, 1855–57.
- Soranus' *Gynecology*, translated with an introduction by Oswei Temkin. Baltimore/London: Johns Hopkins University Press, 1991 [1956].

Electronic Resources

CDLI: *Cuneiform Digital Library Initiative* (<https://cdli.ucla.edu/>)

ETCSL: Black, Jeremy A., Cunningham, Graham, Ebeling, Jarle, Flückiger-Hawker, Esther, Robson, Eleanor, Taylor, Jon and Gábor Zólyomi, *The Electronic Text Corpus of Sumerian Literature* (<http://etcsl.orinst.ox.ac.uk>), Oxford 1998–2006

Perseus Digital Library. Ed. Gregory R. Crane. Tufts University. <http://www.perseus.tufts.edu> (accessed January 23, 2020)

For abbreviations, see *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* (https://rla.badw.de/fileadmin/user_upload/Files/RLA/03_Abkverz_Ende_Nov2018.pdf)

Some Aspects of Aristotle's Gynecological Considerations

MARZIA SOARDI

ABSTRACT: Aristotle is the first philosopher we know of to argue from the reproductive role of female animals to their status as inferior members of a species. These arguments would have a profound influence on later accounts of female behavior, function, physiology, and illness. In this contribution, I will go through Aristotle's arguments concerning females and their reproductive role, looking at the philosophical and empirical evidence behind two of Aristotle's claims: the physiological claim that females are colder than males, and the functional claim that the female contributes only matter to the process of reproduction. From a gynecological point of view, attention will be paid particularly to Aristotle's representation of conception, pregnancy, female genital organs, and female fluids in the light of his philosophical theory.

It is a matter of fact that a reflection on gynecology as such does not exist in Aristotelian thought. Yet the lack of a dedicated treatise does not prevent us from sketching a very precise picture of the way the philosopher and his contemporaries understood the female body. Despite the absence of an explicit and exclusive treatment, in fact, the attention paid by Aristotle to the reproductive mechanisms and their link with the physiology of the female places the philosopher at the forefront of a medical-gynecological tradition that transposes what was an entirely political issue at the time into a scientific-regulatory key: the preeminent social role of women is identified with their generative function and capacity.

The great zoological treatises offer the widest field of investigation for the quantity and clarity of the references to the specific physiology of females, and any study regarding the female body cannot help but take its starting point from the vast world of Aristotelian biology. His reflections cover all animal species, imagined on a hierarchical scale and connected by analogical quantitative or qualitative relationships, from the lowest to the highest level, which is represented by humans.

Not even the male-female couple escapes a vision of nature that is conceived in such a way and evaluated within this grid. In a natural system organized in terms of being higher or lower, better or worse, the dominant political-regulatory evaluations of the time also find a place, and the female, as we shall see, simply turns out to be an imperfect variant of the male. Even the reflection on generation cannot elude this perspective, which translates to the scientific level a precise histori-

cal and cultural situation based on a particular social hierarchy within which men and women are placed.

Before dealing specifically with the issue of female physiology and its functioning in relation to reproduction, it is necessary to clarify why reproduction plays such an important role in Aristotle's biological thinking that it deserves a specific treatment. Talking about generation means dealing with one of the most important conceptual nodes of the philosopher's naturalistic research, given his theoretical assumption that nature is teleologically-oriented. According to Aristotle, it is the end principle that directs the work of nature, which always acts in line with a goal, and the act of reproduction is the goal par excellence that all beings necessarily seek. The highest goal, the most important purpose, is for nature to be able to perpetuate its existence, and this can only happen through generation:

φυσικώτατον γὰρ τῶν ἔργων τοῖς ζῴσιν, ὅσα τέλεια καὶ μὴ πηρώματα ἢ τὴν γένεσιν αὐτομάτην ἔχει, τὸ ποιῆσαι ἕτερον οἷον αὐτό, ζῶον μὲν ζῶον, φυτὸν δὲ φυτόν, ἵνα τοῦ αἰεὶ καὶ τοῦ θεοῦ μετέχωσιν ἢ δύνανται.

The most natural act is the production of another like itself, an animal producing an animal, a plant a plant, in order that, as far as its nature allows, it may partake in the eternal and divine.¹

The act of reproducing is the aim to which all beings are necessarily inclined, because it is the only way to guarantee survival of the species and the possibility of leaving behind another similar being:

ἐπεὶ οὖν κοινωνεῖν ἀδυνατεῖ τοῦ αἰεὶ καὶ τοῦ θεοῦ τῇ συνεχείᾳ, διὰ τὸ μηδὲν ἐνδέχεσθαι τῶν φθαρτῶν ταῦτό καὶ ἐν ἀριθμῷ διαμένειν, ἢ δύναται μετέχειν ἕκαστον, κοινωνεῖ ταύτῃ, τὸ μὲν μᾶλλον τὸ δ' ἥττον, καὶ διαμένει οὐκ αὐτὸ ἀλλ' οἷον αὐτό, ἀριθμῷ μὲν οὐχ ἓν, εἶδει δ' ἓν.

Since then no living thing is able to partake in what is eternal and divine by uninterrupted continuance (for nothing perishable can forever remain one and the same), it tries to achieve that end in the only way possible to it, and success is possible in varying degrees; so it remains not indeed as the self-same individual but continues its existence in something like itself – not numerically but specifically one.²

1. Hylomorphic Theory and the Inferiority of the Female

It is possible, then, to trace the Aristotelian conception of the female body in the context of Aristotle's theory of generation, specifically in relation to their reproductive role.³ As I have already specified, no treatise is specifically dedicated to the nature of the woman, and the construction of the image of the female body is

¹ Aristotle, *De anima* II 4, 415a29–30.

² Aristotle, *De anima* II 4, 415a28.

³ See, e.g. Connell 2016.

always made in relation to that of the male, of which she represents some sort of imperfect version. Nonetheless, Aristotle's reflections on women's bodies make us consider him the first scientific theorist of female inferiority.

The woman is seen as a sort of disablement of nature:

Ἔοικε δὲ καὶ τὴν μορφὴν γυναικὶ παῖς, καὶ ἔστιν ἡ γυνὴ ὥσπερ ἄρρεν ἄγονον· ἀδυναμία γάρ τινι τὸ θῆλυ ἔστι τῷ μὴ δύνασθαι πέττειν ἐκ τῆς τροφῆς σπέρμα τῆς ὑστάτης (τοῦτο δ' ἔστιν ἡ αἷμα ἢ τὸ ἀνάλογον ἐν τοῖς ἀναίμοις) διὰ ψυχρότητα τῆς φύσεως.

Now a boy is like a woman in form, and the woman is as it were an impotent male, for it is through a certain incapacity that the female is female, being incapable of concocting the nutriment in its last stage into semen (and this is either blood or that which is analogous to it in animals which are bloodless) owing to the coldness of her nature.⁴

Yet she is completely necessary for generative purposes. In fact, it is actually due to reproduction that women's bodies are even analysed and discussed, starting with the inseparable juncture between female physiology and reproduction. The basic idea, which Aristotle in some way takes and elaborates from Hippocrates, regards the excessively moist and thus unstable female physiology, suffering from an excess of fluids, disturbed mainly by the movement of the uterine organ, which finds pacification only when it is filled (and stable) during pregnancy.⁵

The fundamental reason that Aristotle singles out a fundamental reason as the cause for this imbalance, and then uses it to justify female inferiority in comparison to the male body: her physiological temperature. Women are naturally colder than men. This is the reason why their bodies are weaker, their flesh is more brittle, and they have an excessive number of humors that require a continuous osmotic balancing act to achieve an equilibrium, even though only a temporary one.

Using the hot-cold pair, Aristotle builds his own theory of generation, inserting it into a well-constructed philosophical frame, through which he interprets the entire reproductive process in detail, as well as the nature of seminal fluids and the organization of genital organs themselves. He fully accepts the pre-existing gynaecological tradition, yet he takes a significant step forward by inserting the theory of generative processes into the frame of one of the fundamental contributions of his entire work: the hylomorphic theory, along with the doctrine of the power and the act, which identify the female in the material principle as the one being subjected to the action of the male and the one that passively contains embryos. The main points of the theory of generation are presented in *De generatione animalium* (*The Generation of Animals*), where Aristotle identifies the male-female roles in reproduction according to the form-matter paradigm.⁶

⁴ Aristotle, *De generatione animalium* I, 20, 728a17–21 (Barnes 1991a).

⁵ See, e. g. Hippocrates, *De morbis mulierum* I, 1 (8, 10, 1–14,7); 6 (8, 30, 6–11) (Potter 2018a). On the etiology of menstruations, see Dean-Jones 1989.

⁶ The form-matter theory applied to the field of reproduction has been defined as “reproductive hylomorphism” by Henry 2006, 257.

To simplify, let us imagine a slab of marble – the matter – that slowly receives its definitive shape through the skilful hands of the artist, capable of giving a precise form to that matter. In the same way, an impulse contained within the male sperm, thanks to the heat with which he is equipped, molds the female matter, which, according to Aristotle, exists in the form of menstrual blood. Thermal insufficiency determines the passive role of the maternal-material element in reproduction. On a physiological level, the embryo comes from the mixing of the pure warm male semen with the female material element: cold menstrual blood. It is not a true fusion; rather, the impulse is contained in the male ingredient that acts on the female ingredient, just as rennet or whey acts on milk in the formation of cheese. Although it uses a material element (sperm), this impulse has nothing material about it; it sets in motion the process of formation of the unborn child, not by becoming part of it materially, but by making it become precisely the being it is intended to be. Only through the spermatic contribution does the embryo grow and develop, acquiring the characteristics that will make it what it is destined to become. Like rennet in milk, the spermatic impulse reacts with the mother's menstrual blood, inert and passive matter, which waits to be discerned and shaped by the male thrust:

ἀλλὰ συμβαίνει ὥσπερ εὐλογον, ἐπειδὴ τὸ μὲν ἄρρεν παρέχεται τό τε εἶδος καὶ τὴν ἀρχὴν τῆς κινήσεως τὸ δὲ θήλυ τὸ σῶμα καὶ τὴν ὕλην, οἷον ἐν τῇ τοῦ γάλακτος πήξει τὸ μὲν σῶμα τὸ γάλα ἐστίν, ὁ δὲ ὁπὸς ἡ ἢ πνευσία τὸ τὴν ἀρχὴν ἔχον τὴν συνιστάσαν, οὕτω τὸ ἀπὸ τοῦ ἄρρενος ἐν τῷ θήλει μεριζόμενον.

But what does happen is just what one would expect, since what the male contributes to generation is the form and the efficient cause, while the female contributes the material. In fact, as in the coagulation of milk, the milk being the material, the fig-juice or rennet is that which contains the curdling principle, so acts the secretion of the male, being divided into the parts in the female.⁷

One may start by observing that, within the Aristotelian theory of reproduction, the active and the passive roles of the two genders seem to correspond to a well-established social connotation.⁸ On the one hand, there is a fertile and active male, which reflects the social belief of men at the time of Aristotle. On the other hand, there is a female who is relegated to a passive life within the home and whose only politically recognized function is the reproductive function. Because women do not play any active social role, in generative process they can only offer potential matter, receive the act of the male impulse, and contain embryos.⁹

⁷ Aristotle, *De generatione animalium* I, 20, 729a9–14 (Barnes 1991a).

⁸ Mayhew 2004, 53 denies that Aristotle's conception of the female's contribution to generation is the result of any primary ideological motivation. Nevertheless, he is inclined to admit the presence of an "ideological slant" in his theory.

⁹ On the connection between social and biological female passivity in Aristotle, see Sissa 1983.

2. Reproductive Fluids

The mother's role within reproduction is thus determined by her thermal insufficiency, which is confirmed by the presence of menstrual flow. This periodic evacuation of blood is required for restabilizing the balance of the body's humors; at the same time, it is the evidence that her cold nature prevents fluids from concocting. The question at hand is better understood if we reflect upon the correlation between menstrual blood and sperm. Both fluids are the result of the processing food that has been introduced into the body. While the former does not undergo any process of concoction and remains cold, the latter reaches the maximum degree of heat and purity thanks to hotness from the male's physiology. Although their origin is identical, and they are both manifested for the first time during puberty, Aristotle ascribes to them two very different functions. Only the sperm is considered to be seed with fertile power, while the female body, according to Aristotle, is like a sterile young boy lacking any fertile seed. This condition is temporary for young boys, but it leaves women trapped in an eternal state of predevelopment.¹⁰

On the one hand, the appearance of both male semen and female menstruation at the same pubertal age is an analogy between the male and female body, yet, on the other, it demonstrates the absurdity of having fertile female seed. If nature never works in vain, then there is no reason to justify the existence of two seeds, two fluids that serve the same purpose. Aristotelian reasoning starts from the need to deny the plausibility of parthenogenesis – namely, the possibility that females can procreate without male contribution. For this reason, Aristotle emphasizes the incommensurability of the two seeds and the denial of maternal procreative power. Deprived of their reproductive power, they only guarantee the material to be molded for the formation of the embryo and, once this has happened, a place in which to receive and protect it.

3. Genital Organs

The nature of these two fluids and their diverse functions determine the varying makeup of the two sets of genital organs. The parts in question, as far as mammals are concerned, include the uterus on the female side, in contrast to testicles and penis on the male side. First of all, Aristotle claims that, like testicles, the uterus

¹⁰ Aristotle, *De generatione animalium* I, 20, 728 (Barnes 1991a). According to Saïd 1983, the similarity with the young boy is a biological transposition of what Aristotle explains in *Politica* I, 12, 1259b1–4, 131260a9–13, about the female deliberative faculty. In Aristotle's view, women, unlike men, are endowed with an ineffectual and incomplete deliberative faculty. They are not capable of making any rational decision by themselves, being always in need of a (male) guide. On this similarity, see also Campese 1997; Deslauriers 2003.

is double shaped: Αἱ δ' ὑστέραι πᾶσι μέν εἰσι διμερεῖς καθάπερ καὶ οἱ ὄρχεις τοῖς ἄρρεσι δύο πᾶσιν, “The uterus is always double, just as the testes are always two in the male.”¹¹ As usual, descriptions of these organs are constructed using comparisons. One may observe that Aristotle could have taken into account in his description the fallopian tubes and the ovaries, which could have been observed even though their proper function was not known at that time. He could also have just examined some animals, such as some rodent, whose female reproductive organ is effectively divided in two parts. Still, it remains true that Aristotle draws the reason for the duplicity of the uterus from comparison with the testicles.

The peculiarity of the female organ is found in its dimensions. The female organ is of a certain size due to the two main functions it is designed to perform: it contains the bloody menstrual mixture, and it carries and protects the fetus during its development.¹² In order to accomplish the latter function, it is the only part of the female body endowed with a certain degree of heat during pregnancy. Because it is no longer considered merely the ultimate container of cold fluid, or menstrual blood, but also as the place where the embryo is protected, the female organ becomes a warm and dry place.¹³ On the contrary, the sperm, which contains the male impulse, runs through conduits of unspecified size, whose only function is to contain the male's seed. In other words, the male's major contribution to generation is not correlated to the material quantity of the spermatic element but resides in the vital impulse contained within the male seed. The testicles do not have any reproductive function *per se*, but they fulfil a mediating function. In some way, they serve to stop the violent and hurried desires in all animals that require a moderating force. If being male means being able to transmit an impulse capable of generating in another being, being female is bound to the ability to generate inside of the woman herself. Accordingly, one can understand the close connection that Aristotle draws between an organ, its function, and the determining power of the sex or genus to which it belongs.

In agreement with the earlier dominant idea of the wandering womb, we find also in Aristotle the image of the female uterus that, eager to have children, is susceptible to movements.¹⁴ Before Aristotle, we find particularly in Plato's *Timaeus* the idea that the female matrix is like an animal eager to have children:

αἱ δ' ἐν ταῖς γυναιξὶν αὖ μήτραί τε καὶ ὑστέραι λεγόμεναι διὰ τὰ αὐτὰ ταῦτα, ζῶον ἐπιθυμητικὸν ἐνὸν τῆς παιδοποιίας, ὅταν ἄκαρπον παρὰ τὴν ὥραν χρόνον πολὺν γίγνηται, χαλεπῶς ἀγανακτοῦν φέρει, καὶ πλανώμενον πάντῃ κατὰ τὸ σῶμα, τὰς τοῦ πνεύματος διεξόδους ἀποφράττον, ἀναπνεῖν οὐκ ἔῶν εἰς ἀπορίας τὰς ἐσχάτας ἐμβάλλει καὶ νόσους παντοδαπὰς ἄλλας παρέχει, μέχρι περ ἂν ἐκατέρων ἢ ἐπιθυμία καὶ ὁ ἔρως συναγαγόντες, οἷον ἀπὸ δένδρων καρπὸν καταδρέψαντες, ὡς εἰς ἄρουραν τὴν μήτραν ἀόρατα ὑπὸ

¹¹ Aristotle, *De generatione animalium* I, 3, 716b32–33 (Barnes 1991a).

¹² Aristotle, *De generatione animalium* I, 12, 719a30–35 (Barnes 1991a).

¹³ Aristotle, *Historia animalium* III 22, 523a23–26; VII, 583a14–19 (Barnes 1991b).

¹⁴ On the idea of the matrix, particularly in Aristotle, see Soardi 2018.

σμικρότητος καὶ ἀδιάπλιστα ζῶα κατασπείραντες καὶ πάλιν διακρίναντες μεγάλα ἐντὸς ἐκθρέψωνται καὶ μετὰ τοῦτο εἰς φῶς ἀγαγόντες ζώων ἀποτελέσωσι γένεσιν. γυναῖκες μὲν οὖν καὶ τὸ θῆλυ πᾶν οὕτω γέγονεν·

What is called the matrix and womb which is in them appetent of child bearing, when it is a long time fruitless beyond the due season, is distressed and sorely disturbed, and straying about in the body and cutting off the passages of the breath it impedes respiration and brings the sufferer into the most extreme anguish and provokes all manner of diseases besides; until the passion and love of both unite them, and, as it were plucking fruit from a tree, sow in the womb, as if in a field, living things invisible for smallness and unformed, and again separating them nourish them within till they grow large, and finally bringing them to light complete the birth of a living creature. Such is the nature of women and all that is female.¹⁵

Should the uterus remain empty for an extended period of time, it would wander up and down and cut off the passages of the breath.¹⁶ Hippocratic doctors and gynecological schools of thought pose the idea of a state of health achieved solely during pregnancy, when the organ is filled and bodily humors are balanced. The most fruitful therapies are thus coitus and conception, while virginity and extended periods of abstinence would only harm female physiology. For a widow affected by such uterine problems, the doctor says that “best, however, would be for her to become pregnant” (ἄριστον δ’ ἐν γαστρὶ ἔχειν) while for an unmarried woman it would be best “to marry” (συνοικῆσαι).¹⁷

Aristotle, unlike the Hippocratic doctors, does not consider a filled uterus to be a complete guarantee of balance and health for women, except during rather short period of their pregnancy. Pregnancy, according to Aristotle, takes on an ethical meaning in addition to its purely biological value. The satisfaction and stability achieved by the uterus, albeit temporary, takes on another connotation that concerns sexual habits: Καθίστανται δὲ καὶ σωφρονίζονται μᾶλλον ὅσαι τῶν γυναικῶν ἀκόλαστοι πρὸς τὴν ὁμιλίαν εἰσὶ τὴν τῶν ἀφροδισίων, ὅταν τοῖς τόκοις χρήσωνται πολλοῖς, “Women of a lascivious disposition grow more sedate and virtuous after they have borne several children.”¹⁸ Pregnancy – or, rather, numerous pregnancies and births – cures erotically intemperate women, making them more moderate. Hippocrates emphasized the therapeutic function from a strictly physiological point of view, while implying a fully defined vision of the female. Yet, for Aristotle, pregnancy – the filled uterus – becomes an explicit tool to educate in the temperance of love, to tame women sexually and to instill a certain balance.

¹⁵ Plato, *Timaeus* 91c1–91d6 (Bury 1929).

¹⁶ Aristotle, *Historia animalium* VII, 3, 582b22–26 (Barnes 1991b). On the wandering womb, see Aubert 1989; Adair 1996; Faraone 2011.

¹⁷ Hippocrates, *De natura muliebri* 3 (L VII 316) (Potter 2018b). On Hippocratic gynecology, see Hanson 1975; Manuli 1983; Dean-Jones 1991; Dean-Jones 1994; Andò 1995, Dean-Jones 1995; King 1995; King 1998; Andò 2000.

¹⁸ Aristotle, *Historia animalium* VII, 1, 582a25–27 (Barnes 1991b).

4. Pregnancy and Delivery

After conception, the menstrual cycle ceases because the fetus draws its sustenance from the umbilical cord as if it were a root using for its own growth the material support that constitutes the female contribution to reproduction. Menstrual blood is converted into food for the fetus, and this is the reason why women do not have a menstrual cycle during pregnancy. If, for some reason, things go differently, the woman will give birth to an unhealthy child with a low probability of surviving. According to Aristotle, as well as Hippocrates, a perfect correlation exists between blood, nourishment for the fetus, and milk for the nursing infant. This idea is based on the concept of the female body being a cavity flushed with fluids running through communication vessels that, depending on the occasion, take each other's place by way of an osmotic process.

However, as opposed to the Hippocratics, Aristotle does not describe the months of gestation entirely as a time of balance. Menstrual discharge ceases during pregnancy and is instead transformed into nourishment for the embryo. Yet, for quite some time, when the fetus is still too small to absorb the entire excess residue, the mother suffers, particularly because she is deprived of her usual monthly discharge. Among all mammals, human females in particular, possess the most abundant amount of residue. As a consequence, they are unable to reach a balance, except for that small window of time when a perfect parallel exists between blood that is produced, but not discharged, and consumed as required nourishment by the fetus.

συμβαίνει δὲ καὶ διαφορὰ περὶ τὰς κήσεις ἐπὶ τε τῶν ἀνθρώπων καὶ ἐπὶ τῶν ἄλλων ζώων· τὰ μὲν γὰρ εὐθηνεῖ μᾶλλον τοῖς σώμασι τὸν πλεῖστον χρόνον, τῶν δὲ γυναικῶν αἱ πολλὰ δυσφοροῦσι περὶ τὴν κήσιν. ἔστι μὲν οὖν αἰτίον τι τούτων καὶ διὰ τὸν βίον· ἐδραῖαι γὰρ οὔσαι πλείονος γέμουσι περιττώματος, ἐπεὶ ἐν οἷς ἔθνεσι πονητικὸς ὁ τῶν γυναικῶν βίος οὐθ' ἡ κήσις ὁμοίως ἐπίδηλός ἐστι, τίκτουσί τε ῥαδίως κάκει καὶ πανταχοῦ αἱ εἰωθυῖαι πονεῖν· ἀναλίσκει γὰρ ὁ πόνος τὰ περιττώματα, ταῖς δ' ἐδραῖαις ἐνυπάρχει πολλὰ τοιαῦτα διὰ τὴν ἀπονίαν καὶ τὸ μὴ γίγνεσθαι καθάρσεις κυούσαις, ἥ τε ὥδὶς ἐπίπονός ἐστιν· ὁ δὲ πόνος γυμνάζει τὸ πνεῦμα ὥστε δύνασθαι κατέχειν ἐν ᾧ τὸ τίκτειν ἐστὶ ῥαδίως ἢ χαλεπῶς. ἔστι μὲν οὖν ὥσπερ εἴρηται καὶ ταῦτα συμβαλλόμενα πρὸς τὴν διαφορὰν τοῦ πάθους τοῖς ἄλλοις ζώοις καὶ ταῖς γυναιξί, μάλιστα δ' ὅτι τοῖς μὲν αὐτῶν ὀλίγη γίγνεται κάθαρσις τοῖς δ' οὐκ ἐπίδηλος ὅλως, ταῖς δὲ γυναιξὶ πλείστη τῶν ζώων, ὥστε μὴ γιγνομένης τῆς ἐκκρίσεως διὰ τὴν κήσιν ταῖς μὲν ταραχὴν παρέχει· καὶ γὰρ μὴ κυούσαις ὅταν αἱ καθάρσεις μὴ γίγνωνται νόσοι συμβαίνουσιν, καὶ τὸ πρῶτον δὲ ταραττονταὶ συλλαβοῦσαι μᾶλλον αἱ πλείσται τῶν γυναικῶν· τὸ γὰρ κύημα κωλύειν μὲν δύναται τὰς καθάρσεις, διὰ μικρότητα δὲ οὐδὲν ἀναλίσκει πλῆθος τοῦ περιττώματος τὸ πρῶτον, ὕστερον δὲ κουφίζει μεταλαμβάνον·

A difference is also found between man and the other animals in respect of gestation, for animals are in better bodily condition most of the time, whereas in most women gestation is attended with discomfort. Their way of life is partly responsible for this, for being sedentary they are full of more residual matter; among nations where the women live a labori-

ous life gestation is not equally conspicuous and those who are accustomed to work bear children easily both there and elsewhere; for work consumes the residual matter, but those who are sedentary have a great deal of it in them because not only is there no monthly discharge during pregnancy but also they do not work; therefore their travail is painful. But work exercises them so that they can hold their breath, upon which depends the ease or difficulty of child-birth. These circumstances then, as we have said, contribute to cause the difference between women and the other animals in this state, but the most important thing is this: in some animals the discharge is small, and in some not visible at all, but in women it is greater than in any other animal, so that when this discharge ceases owing to pregnancy they are troubled (for if they are not pregnant they are afflicted with ailments whenever the discharges do not occur); and they are more troubled as a rule at the beginning of pregnancy, for the embryo is able indeed to stop the discharges but is too small at first to consume any quantity of the secretion: later on it takes up some of it and so alleviates the mother.¹⁹

Being the imperfect version of the most perfect animal, she is the closest to Aristotle's proposed inferiority of the female body. For this reason, she the coldest and contains the most fluid. If supreme femininity and an abundance of fluid coincide, gestation paradoxically involves some minor difficulties for women who least represent the paradigm – those with scarce residue – because αὐται δ' εἰσὶν ὅσαις μικρὰ τὰ περιττώματα ἐν τῷ σώματι ὥστε καταναλίσκεσθαι μετὰ τῆς εἰς τὸ ἔμβρυον τροφῆς, “the residual matter is small so that it is all used up along with the nourishment that goes to the fetus.”²⁰ The more they distance themselves from their specificity, which corresponds to the abundance of bodily humors, the better they will be able to overcome the most important event in a female's life.

External factors may also worsen the situation, such as a sedentary lifestyle and lack of exercise.²¹ In this regard, Aristotle recommends not an athletic sports routine but a balanced compromise between intense exercise and total inactivity. This Aristotelian idea is expressed in the *Politics* in his recommendation that, in order to achieve a good offspring, both spouses do moderate exercise in a fashion that is suitable for a free citizen and that does not reach the training intensity of an athlete.

οὔτε γὰρ ἡ τῶν ἀθλητῶν χρῆσιμος ἔξις πρὸς πολιτικὴν εὐεξίαν οὐδὲ πρὸς ὑγίειαν καὶ τεκνοποιίαν, οὔτε ἡ θεραπευτικὴ καὶ κακοπονητικὴ λίαν, ἀλλ' ἡ μέση τούτων. πεπονημένην μὲν οὖν ἔχειν δεῖ τὴν ἔξιν, πεπονημένην δὲ πόνοις μὴ βίαιοις, μηδὲ πρὸς ἓν μόνον, ὥσπερ ἡ τῶν ἀθλητῶν ἔξις, ἀλλὰ πρὸς τὰς τῶν ἐλευθερίων πράξεις. ὁμοίως δὲ δεῖ ταῦτα ὑπάρχειν ἀνδράσι καὶ γυναιξίν.

The constitution of an athlete is not suited to the life of a citizen, or to health, or to the procreation of children, any more than the valetudinarian or exhausted constitution, but one which is in a mean between them. A man's constitution should be inured to labour, but not

¹⁹ Aristotle, *De generatione animalium* IV, 6, 775b2–13 (Barnes 1991a).

²⁰ Aristotle, *De generatione animalium* IV, 6, 775b21–24 (Barnes 1991a).

²¹ See also Aristotle, *De generatione animalium* VII, 9, 586b35 and 587a1–5 (Barnes 1991a).

to labour which is excessive or of one sort only, such as is practiced by athletes; he should be capable of all the actions of a freeman. These remarks apply equally to both parents.²²

Apart from fluids, other problems may impact pregnant women. Starting immediately after the moment of conception, they may feel heavy pain, experience vision problems, nausea, vomiting, hair loss, or hair growth in unusual places.²³ Lastly, Aristotle's explanation for so-called cravings introduces us to another aspect:

Εἰώθασι δὲ ταῖς κυούσαις ἐπιθυμῖαι γίνεσθαι παντοδαπαὶ καὶ μεταβάλλειν ὁξέως, ὃ καλοῦσί τινες κισσᾶν· καὶ ἐπὶ τῶν θηλειῶν ὁξύτεραι μὲν αἱ ἐπιθυμῖαι, παραγινομένων δὲ ἥττον δύνανται ἀπολαύειν.

Women in pregnancy are a prey to all sorts of longings and to rapid changes of mood, and some call this the "ivy-sickness"; and with the mothers of female infants the longings are more acute, and they are less contented when they have got what they desired.²⁴

The reason for the differences here depends upon whether the fetus is male or female. The unexpected and sudden desires experienced by future mothers seem to be particularly intense and acute when the fetus is female. Accordingly, the different sex of the fetus inside her impacts the pregnant woman's general condition and even the birth itself:

Ὅς μὲν οὖν ἐπὶ τὸ πολὺ ῥᾶον ἀπαλλάττουσιν αἱ τὰ ἄρρενα κύουσai καὶ μᾶλλον μετ'εὐχροίας διατελοῦσιν, ἐπὶ δὲ τῶν θηλειῶν τοῦναντίον· ἀχρoύστεραί τε γὰρ ὡς ἐπὶ τὸ πολὺ, καὶ βαρύτερον διάγουσι, καὶ πολλαῖς περὶ τὰ σκέλη οἰδήματα καὶ ἐπάρσεις γίνονται τῆς σαρκός.

As a general rule women who are pregnant of a male child escape comparatively easily and retain a comparatively healthy look, but it is otherwise with those whose infant is a female; for these latter look as a rule paler and suffer more pain, and in many cases they are subject to swellings of the legs and eruptions on the body.²⁵

The more socially desirable situation – that is, as in all patriarchal societies, a male birth – seems to correspond with a more comfortable pregnancy for the woman.

Natural birth comes after the so-called breaking of the water, when the fetus moves and membranes tear.²⁶ Hence, the baby emerges from inside the woman's body through a rupture. The infant is the active part, while there is no trace of contractions as a way to push the baby out of the uterus or any other form of maternal participation in pushing out the fetus. This process is so dependent upon the baby's movements that the period just before birth, when the fetus turns its head around, can even make the mother think she is already going into labor. Just as

²² Aristotle, *Politica* VII, 16, 1335b6–13 (Barnes 1991c).

²³ Aristotle, *Historia animalium* VII, 4, 584a2–12, 23–26 (Barnes 1991b).

²⁴ Aristotle, *Historia animalium* VII, 4, 584a17–21 (Barnes 1991b).

²⁵ Aristotle, *Historia animalium* VII, 4, 584a12–17 (Barnes 1991b).

²⁶ Aristotle, *De generatione animalium* IV, 8, 777a28–31 (Barnes 1991a); Aristotle, *Historia animalium* VII, 9, 587a6–8 (Barnes 1991b).

she submits the action of the male agent during conception, she also seems to undergo the movements of the fetus, which strives to get out. The role of the woman seems to be completely passive.²⁷ Also in the case of a difficult labor, it is just the baby that strives to find its way out: Πρὶν δ' ἐξελθεῖν οὐ φθέγγεται τὸ παιδίον, κἂν δυστοκούσης τὴν κεφαλὴν μὲν ὑπερέχῃ, τὸ δ' ὅλον σῶμα ἔχῃ ἐντός, "Before birth the child makes no sound – not even when in difficult labor it puts forth its head while the rest of the body remains within."²⁸ Both in Hippocratic gynecological treatises and in Aristotle we find the same image of the unborn child that comes out of the uterus literally breaking the internal membranes while there is no trace of any active contribution by the mother. Uterine contractions, for example, which were clearly observable by Hippocratic doctors, are considered nothing more than a response by the female body to the pain suffered because of the action of the fetus in preparing its exit from the womb.

If the basic assumption, established by men, is that of the passivity and social inferiority of women, this can only have repercussions for how every aspect of their physiology is represented, in a way that is ideologically informed. As in the case of pregnancy, differences exist between the birth of a female and male baby. During the latter, the laboring woman will experience quite a painful, yet quicker birth.

Καὶ κίνησιν δὲ παρέχεται ἐν τῷ σώματι μᾶλλον ὥς ἐπὶ τὸ πολὺ τὸ ἄρρεν τοῦ θήλεος, καὶ τίκτεται θάττον, τὰ δὲ θήλεα βραδύτερον. Καὶ ὁ πόνος ἐπὶ μὲν τοῖς θήλεσι συνεχῆς καὶ νωθρότερος, ἐπὶ δὲ τοῖς ἄρρεσιν ὀξύς μὲν, πολλῶ δὲ χαλεπώτερος.

As a general rule, a man-child is more prone to movement within its mother's womb than a female child, and it is usually born sooner. And labor in the case of female children is apt to be protracted and sluggish, while in the case of male children it is acute and by a long way more difficult.²⁹

Early on, the male embryo manifests certain uneasiness when the uterus constricts, and, when the most opportune moment presents itself, he starts to push in order to exit his mother's womb. If the birth depends solely upon fetal activity, giving birth to a female would be even slower because two types of passivity overlap: that of the female fetus and that of the mother who does not in any way facilitate the baby's exit. Once the new-born has come into the world, the nourishment from transformed blood inside the womb is converted into breast milk, according to the principle of communication and exchange of fluids that I previously mentioned. In fact, menstrual blood, embryonic nourishment, and milk share the same haematic origin. The substance that was discharged in the form of menstrual

²⁷ On the absence of maternal pushing and contraction either in Aristotle or in Hippocrates, see Demand 1994; Manuli 1983.

²⁸ Aristotle, *Historia animalium* VII, 10, 587a35 (Barnes 1991b).

²⁹ Aristotle, *Historia animalium* VII, 4, 584a26–30 (Barnes 1991b). On this point, see Demand 1994.

flow is converted into internal nourishment for the fetus/embryo during pregnancy, which, after birth, again changes into maternal milk. As opposed to the menstrual cycle, this is concocted and is manifested in an advanced thermal state. Furthermore, after the birth the so-called purifying *lochia* comes out, which removes excess fluid that has not been used by the fetus.

Descriptions of this phenomenon are rather scarce in Aristotle's work, and the most detailed ones are to be found in the Hippocratic works on gynecology.³⁰ In these latter ones, a substantial difference is made between purifications after the birth of a male or a female.

Καὶ καθαίρεσθαι μετὰ τὸν τόκον ὡς ἐπὶ τὸ πλεον τὴν ὑγιήρην ξυμβαίνει, ἐπὶ μὲν τῇ κούρῃ ἡμέρας τεσσαράκοντα καὶ δύο τὴν χρονιωτάτην κάθαρσιν, ἀκίνδυνος δέ ἐστι καὶ εἴκοσι καὶ πέντε ἡμέρας καθαιρομένη· ἐπὶ δὲ τοῦ κούρου ἡμέρας τριήκοντα ἢ κάθαρσις γίνεται ἢ χρονιωτέρη, ἀκίνδυνος δέ ἐστι καὶ εἴκοσιν ἡμέρας γενομένη.

The cleaning after birth in a healthy woman usually occurs over 42 days at the longest after the birth of a female child: but danger would also be escaped if the cleaning lasted just 25 days. After the birth of a male child, the cleaning takes place over 30 days at the longest, but danger would also be escaped if the cleaning lasted just 20 days.³¹

After the birth, the cleanings aim at restoring the delicate balance of the female fluids and, finally, at reestablishing the healthy state of the body after pregnancy and delivery. As we can read, according to the Hippocratic doctors, the discharge after the birth of a male is quicker than after the birth of a female. In the first case, then, the woman will experience a faster and, for this reason, better recovery than in the other case. Again, what is more suitable for a patriarchal society seems to correspond with a more desirable bodily condition for women.

Aristotle shares this view of the *lochia* as a crucial process of restoring the female state of health. However, the only information we can find regards the ideal maximum duration of the discharge without any reference to the gender of the new-born. If the cleanings finish within a few days, the mother will recover more quickly:

Ὅσαις δ' ἂν ἐν ταῖς ἀποκαθάρσεσι προεξορμήσωσιν οἱ καθαρμοί, δυσπαλλακτότεραι γίνονται τῶν ἐμβρύων. Ἐὰν δ' αἱ καθάρσεις μετὰ τὸν τόκον ἐλάττους γένωνται, καὶ ὅσων μόνον αἱ πρῶται, καὶ μὴ διατελέσωσιν εἰς τὰς τετταράκοντα, ισχύουσί τε μᾶλλον αἱ γυναικες καὶ συλλαμβάνουσι θᾶττον.

But if discharge take place after birth in small quantity, and in cases where it only takes place at the beginning and does not continue till the fortieth day, then in such cases women make a better recovery and are the sooner ready to conceive again.³²

Just as with every discharge of fluid from the female body, the goal is always to re-establish equilibrium through an osmotic counterbalance between her internal

³⁰ On this point, see King 1998; Dean-Jones 1991; Dean-Jones 1994; Andò 2000.

³¹ Hippocrates, *De morbis mulierum* I, 72 (L VIII, 152) (Potter 2018a).

³² Aristotle, *Historia animalium* VII, 587b1–5 (Barnes 1991b).

and external states. In particular, the *lochia* serves as the means by which excess fluid that the fetus was not able to completely absorb during its formation and the months in which the mother has no menstruation gets discharged after the birth. This process is most correct when the *lochia* is not excessive, so as to not provoke any imbalance and weaken the woman. As we can observe, the process of reabsorption and moderation of any female liquid follow the same pattern and correspond to same concept of female bodies and gynecological functions. Releasing humors is always necessary to maintain a physiological balance, but, at the same time, this release may lead to a general weakening. Obviously, returning to a state of health is desirable so that the woman can quickly reproduce again and carry on her proper natural and social task: generating offspring for the community. This ambivalence cradles the delicate balancing act in which resides the constitutive trademark of female physiology.

5. Conclusions

As is clear from texts in both the Hippocratic tradition and Aristotle, ancient gynecology was a science intended, for the most part, for reproductive purposes. The first formulations of knowledge about the female body were established immediately as a mirror of patriarchal society and relegated women to a narrow and well-defined space: procreation. In this sense, then, it was regarded as evident that female health and good reproductive capacity should coincide. In particular, in the treatises on Aristotelian biology, the construction of the female anatomical model moves in two directions that come together: a negative comparison with the perfection of the male body and the specific nature of the female body as functional for reproduction. As we have seen, this is not an active role; it is not the mothers who turn the unborn child into an animated being or contribute in any way to its coming into the world. They guarantee material that can be shaped by men and a container to protect the fetus during its development prior to birth.

The translation of passivity at a speculative and medical level describes and reflects the social condition of women at the time of Aristotle. From early childhood, the education of each young female citizen takes place through a long initiatory path that appropriately directs and prepares her for the wedding. Marriage at a young age will deliver the girl to the custody of a husband/guardian in the hope of a large number of offspring that are preferably predominantly male.

Feminine nature is not the subject of any explicit treatment, and the construction of the female's physiological image is built up solely in relation to that of the male. By virtue of this comparative relationship, we could imagine the male as being endowed with a series of pertinent traits that we would say are characterized by a positive sign, while the female would be characterised by the negative sign.

The paradigm that emerges from the biological reflection on what is truly feminine therefore reflects a well-defined social and political ideology, which, in turn, finds confirmation of its structures through the medical and scientific observation of bodies. Equipped with a cold and humid body, with a mobile and capricious organ, destined, by its nature, to contain embryos, women can find their fulfilment only through the reproductive sphere.

Bibliography

- Adair, Mark J. 1996. "Plato's View of the Wandering Uterus." *Classical Journal* 91,2: 153–163.
- Andò, Valeria. 1995. "Modelli culturali e fisiologia della maternità nella medicina ippocratica." *Madri. Storia di un ruolo sociale*. Edited by Giovanna Fiume. Venice: Marsilio. Pages 33–44.
- Andò, Valeria. 2000. *Ippocrate, Natura della donna*. Milan: BUR.
- Aubert, Jean-Jaques. 1989. "Threatened Wombs, Aspects of Ancient Uterine Magic." *Greek, Roman and Byzantine Studies* 30: 412–449.
- Barnes, Jonathan, ed. and trans. 1991a. *The Complete Works of Aristotle: Generation of Animals*. Princeton: Princeton University Press.
- Barnes, Jonathan, ed. and trans. 1991b. *The Complete Works of Aristotle: History of Animals*. Princeton: Princeton University Press.
- Barnes, Jonathan, ed. and trans. 1991c. *The Complete Works of Aristotle: Politics*. Princeton: Princeton University Press.
- Bury, Robert Gregg, ed. and trans. 1929. *Plato, Timaeus*. Loeb Classical Library 7. Cambridge, MA: Harvard University Press.
- Campese, Silvia. 1997. *La cittadina impossibile. La donna nell'Atene dei filosofi*. Palermo: Sellerio.
- Connell, Sophia M. 2016. *Aristotle on Female Animals: A Study of the Generation of Animals*. Cambridge: Cambridge University Press.
- Dean-Jones, Lesley Ann. 1989. "Menstrual Bleeding according to the Hippocratics and Aristotle." *Transactions of the American Philological Association* 119: 177–192.
- Dean-Jones, Lesley Ann. 1991. "The Cultural Construct of the Female Body in Classical Greek Science." *Women's History and Ancient History*. Edited by Sarah B. Pomeroy. Chapel Hill: University of North Carolina Press. Pages 111–137.
- Dean-Jones, Lesley Ann. 1994. *Women's Bodies in Classical Greek Science*. Oxford: Oxford University Press.
- Dean-Jones, Lesley Ann. 1995. "Autopsia Historia and What Women Knew: The Authority of Women in the Hippocratic Gynaecology." *Knowledge and the Scholarly Medical Tradition*. Edited by Donald G. Bates. Cambridge: Cambridge University Press. Pages 41–59.
- Demand, Nancy. 1994. *Birth, Death and Motherhood in Classical Greece*. Baltimore: Johns Hopkins University Press.
- Deslauriers, Marguerite. 2003. "Aristotle on the Virtues of Slaves and Women." In *Oxford Studies in Ancient Philosophy, Volume XXV*. Edited by David Sedley. Oxford: Oxford University Press. Pages 213–231.

- Faraone, Christopher A. 2011. "Magical and Medical Approaches to the Wandering Womb in the Ancient Greek World." *Classical Antiquity* 30,1: 1–32.
- Hanson, Ann Ellis. 1975. "Hippocrates: Diseases of Women I." *Signs* 1: 77–83.
- Henry, Devin. 2006. "Understanding Aristotle's Reproductive Hylomorphism." *Apeiron. a Journal for Ancient Philosophy and Science* 39,3: 257–287.
- Mayhew, Robert. 2004. *The Female in Aristotle's Biology: Reason or Rationalization*. Chicago: Chicago University Press.
- King, Helen. 1995. "Self-Help, Self-Knowledge: In Search of the Patient in Hippocratic Gynecology." In *Women in Antiquity: New Assessments*. Edited by Richard Hawley and Barbara Levick. London: Routledge. Pages 135–148.
- King, Helen. 1998. *Hippocrates' Woman: Reading the Female Body in Ancient Greece*. London: Routledge.
- Manuli, Paola. 1983. "Donne mascoline, femmine sterili, vergini perpetue. La ginecologia greca tra Ippocrate e Sorano." *Madre Materia. Sociologia e biologia della donna greca*. Edited by Silvia Campese, Paola Manuli, and Giulia Sissa. Turin: Bollati Boringhieri. Pages 149–185.
- Potter, Paul, ed. and trans. 2018a. *Hippocrates, Diseases of Women 1–2*. Loeb Classical Library 11. Cambridge, MA: Harvard University Press.
- Potter, Paul, ed. and trans. 2018b. *Hippocrates, Nature of Women*. Loeb Classical Library 10. Cambridge, MA: Harvard University Press.
- Saïd, Susan. 1983. "Féminin, femme et femelle dans les grands traités biologiques d'Aristote." *La femme dans les sociétés antiques. Actes des Colloques de Strasbourg, 1980 et 1981*. Edited by Edmond Lévy. Strasbourg: AECR. Pages 93–123.
- Sissa, Giulia. 1983. "Il corpo della donna. Lineamenti di una ginecologia filosofica." *Madre Materia. Sociologia e biologia della donna greca*. Edited by Silvia Campese, Paola Manuli, and Giulia Sissa. Turin: Bollati Boringhieri. Pages 83–145.
- Soardi, Marzia. 2018. "A Cold Place, a Hot Place: Female Matrix in the Aristotelian Theory of Generation." *Cultural Constructions of the Uterus in Pre-Modern Societies, Past and Present*. Edited by M. Erica Couto-Ferreira and Lorenzo Verderame. Newcastle upon Tyne: Cambridge Scholars. Pages 98–108.

Do Women Emit Seed?

Theories of Embryogenesis and the Regulation of Female Masturbation in Rabbinic Literature

SHANA STRAUCH SCHICK

ABSTRACT: This contribution examines how rabbinic texts from late antiquity through the medieval period were guided by competing bio-philosophical assumptions that were current in Greco-Roman thought concerning the existence of female seed. Texts from the Land of Israel seem to presuppose a one-seed theory, while several passages in the Babylonian Talmud reflect more popular two-seed theories. These conflicting approaches will be shown as ramifying across a range areas of rabbinic discourse; in aggadic texts, regarding how the rabbis depict women's biological role in procreation, and in legal discussions, in determining when she becomes impure as a menstruant and whether a prohibition against masturbation applies to women. By surveying these diverse texts, we can better appreciate how scientific theories of antiquity shaped *halakhah*, midrash, and biblical exegesis across many generations of rabbinic authors, as well as how the female anatomy and women's bodily experiences were constructed via male discourses.

Rabbinic law (*halakhah*) and interrelated non-legal discussions (*aggada*) attempt to cover virtually all aspects of life. It is therefore expected that among this voluminous literature are passages relating to the female body and reproductive system. It goes without saying that as is the case with all rabbinic literature, such passages were produced by men and thus present a male perspective. The questions I probe in this contribution are twofold: how did the rabbis understand the female body and its workings, and what were the sources of knowledge that the rabbis drew from in such discussions.

In what follows I explore how rabbinic texts from late antiquity through the medieval period were guided by competing bio-philosophical assumptions concerning the existence of female seed. These conflicting approaches had ramifications not only for how the rabbis understood women's biological role in procreation, but also questions concerning *halakhah* such as determining when a woman becomes impure as a menstruant, and whether a prohibition against masturbation applies to women. By surveying these diverse texts, we can better appreciate how scientific theories of antiquity shaped *halakhah*, midrash, and biblical exegesis across many generations of rabbinic authors, as well as how the

female anatomy and a woman's bodily experiences were constructed via male discourses.

Women's Seed: Competing Theories

During the time in which the rabbis were active, which includes the periods of both the rabbis of the Mishnaic period known as the Tannaim (70–220 CE) and the rabbis who followed them known as Amoraim (third to sixth centuries), there were several theories regarding human reproduction, which differed primarily in regard to how they viewed female physiology. From men's own experience, the male physicians and philosopher-scientists were well aware that men emit semen (containing seed) which was assumed to play a vital role in reproduction. However, with respect to women, things were far more opaque. Although fertile women had regular menstrual cycles, no obvious emission took place on their part during intercourse. As such, the existence of female seed became a point of dispute. Soranus of Ephesus (first-century CE) maintained a one-seed theory: only men produce seed which develops into an embryo while women make no material contribution.¹ More popular, however, were two-seed theories, such as those found in the Hippocratic and Galenic gynecological traditions, which posit that women, like men, emit seed which combine together to form the embryo.² Also prevalent was Aristotle's modified two-seed theory: women contribute menstrual blood, the red substance *katamenia*, which is shaped by the pure white male semen into a fetus.³ Although the degree to which these classical gynecological writings contain female voices remains a matter of debate,⁴ they certainly reflect the ideologies of their male authors.⁵ In the sections that follow, I will show that not only do rabbinic texts draw from these works, but in some passages understand the female body from the perspective of the male experience.

¹ Temkin 1991, 12, §1.12.

² Lloyd 1983, 88–94; Dean-Jones 1996, 149; de Lacy 1992, 50; §2.2, 2.4; May 1968, 2.630.

³ *Treaties On the Generation of Animals* 2.716a §5–7, 2.4.738b §20–23. Peck 1942. See Morsink 1979, who offers a more nuanced picture of Aristotle's form-matter hypothesis, demonstrating that mothers also contribute form to the offspring, but in a less direct and "natural" manner than do fathers.

⁴ It has been argued recently that the Hippocratic Corpus (fifth and fourth centuries BCE) preserves oral traditions of women's testimony on the nature of their own bodies along with a female point of view which was lost sight of in the following centuries of gynecological speculation. Arthur-Katz 1989, 172. By contrast, Ann Ellis Hanson remarks: "The medical (Hippocratic) writer is projecting upon the woman a man's experience." Hanson 1990, 314. Aline Rouselle similarly demonstrates that Hippocratic writing, along with Soranus and Rhus, represents "male policy towards women." (Rouselle 1988, 32, 40). Aristotelian discourse conceptualizes the female body as a diminution of the male form (Campese, Manuli, and Sissa 1983, 81–145, especially p. 90). For a summary of the differing opinions see Demand 2004, 53, 64–65; King 1998, 22.

⁵ Fonrobert 2002, 131.

Texts from the Land of Israel: One-Seed Theory

Biblical and Second Temple texts depict women having an active role in procreation and ascribe importance to their biological contributions. Leviticus 12:1, *isha ki tazria*, uses an active feminine verb to describe conception, and could be rendered literally as “when a woman bears seed” or “when a woman inseminates.”⁶ Second Temple literature likewise contains several passages which depict an emission of seed on the part of the woman.⁷ However, rabbinic texts from the Land of Israel which reference embryology and conception tend to downplay the mother’s material contribution, beginning with the translation of Leviticus 12:2. The Aramaic Palestinian *targumim* Onkelos,⁸ Pseudo-Jonathan,⁹ and Neofiti¹⁰ all interpret *ishah ki- tazria* passively as “when a woman becomes pregnant.” A one-seed theory seems to underlie several other texts, both halakhic and more explicitly, aggadic.

1. Checking for Genital Emissions: m.Niddah 2:1, t.Niddah 2:8¹¹

Mishnah Niddah 2:1 encourages women to perform frequent manual examinations of their genitals in order to ascertain whether they are impure as menstruants, while men are warned not to check frequently for evidence of emissions which would render them impure:

כל היד המרבה לבדוק בנשים משובחת ובאנשים תקצץ

Any hand which makes many examinations: In the case of women is to be praised; in the case of men, is to be cut off.

The Mishnah does not explain the reason for the difference.¹² Michael Satlow has argued that the Palestinian rabbis were not concerned with the spilling of seed

⁶ On the meaning of this phrase, see Levine 1989, 73 who suggests that this might also be an idiomatic phrase connoting childbirth. Biblical terms such as *va-tahar va-teled*, she became pregnant and gave birth, (Genesis 4:1, and Leviticus 12:2) similarly convey woman’s active role in pregnancy and birth. Kessler 2009, 113.

⁷ Hebrews 11:11, “Through faith also Sara herself received strength to conceive seed, and was delivered of a child,” has been understood as reflecting a “two-seed theory,” discussed below. Van der Horst 1994, 217–218. See also Wisdom of Solomon 7:1–2 (“in the womb of a mother I was molded into flesh, within the period of ten months compacted with blood from the seed of man”), 4 Maccabees 13:19–22, (“which was implanted in the mother’s womb, there each of the brothers ...was shaped during the same period of time and growing from the same blood”), and 1 Enoch 15: 4, (“have begotten [children] with the blood of flesh”) all reflect something akin to the Aristotelian theory that menstrual blood provides material out of which the fetus is formed. Cf. Satlow 1994, 157–158.

⁸ ... אתתא ארי תעדי ותליד דכר if a woman becomes pregnant ...

⁹ ... אתתא ארום תעדי ותיליד ביר דכר if a woman becomes pregnant ...

¹⁰ ... אתא ארום תעבר ותלד בר דכר ... if a woman conceives ...

¹¹ I follow a standard abbreviation system in this contribution: m. referring to Mishnah; t. to Tosefta; b. to the Babylonian Talmud; and y. to the Jerusalem Talmud or the Yerushalmi.

¹² The Yerushalmi (y.Nid. 2,1 [49d]) also does not explain the Mishnah.

per se, but rather with self-arousal, a concern shared by their Greco-Roman contemporaries.¹³ While the subject of masturbation does not appear with any great frequency in Classical writings,¹⁴ male masturbation was looked at with “good humored disdain,”¹⁵ and was largely associated with “slaves, foreigners, old men, and the generally non-ideal.”¹⁶

Whereas the Mishnah may not be concerned with wasting seed, as Satlow compellingly argues, its longer parallel found in the Tosefta seems to indicate that spilling seed is precisely what is at issue. T.Niddah 2:8 states:

- (A) כל היד המרבה לבדוק בנשים הרי משובחת, ובאנשים תקצץ
 (B) ר' טרפון אומר תקצץ על טיבורו
 (C) אמר לו הרי כריסו נתפתחת
 (D) אמר להם אף אני לא נתכוונתי אלא לכך
 (E) משלו משל למה הדבר דומה?
 (F) לנותן אצבע בעין כל זמן שהוא דוחק הרבה מוציא דמעה
 (G) במה דברים אמורים?
 (H) בשכבת זרע
 (I) אבל לזיבה
 (J) כל היד המרבה לבדוק הרי זו משובחת

- A. Any hand which makes many examinations: in the case of women is to be praised; in the case of men, is to be cut off.
 B. R. Tarfon says: it should be cut off [while it is placed] on his belly-button (m.Niddah 2:1)
 C. They said to him: his belly will split open.
 D. He said to them: I intended for that.¹⁷
 E. They drew a parable: To what is the matter compared?
 F. to one who puts his finger in his eye,¹⁸ for all the time that he exerts pressure, he brings forth an abundance of tears.
 G. Under what circumstances [are examinations prohibited]?
 H. With reference to seminal emission.
 I. But if it is with reference to flux,
 J. any hand which makes many examinations, it is to be praised.

¹³ Satlow argues that the problem with non-procreative emission of semen was a concern only for the redactors of the Bavli, correlating with Middle Persian texts, which frequently warn against the evils of wasting seed. M. Satlow 1994, 138–50, 161; Shaked 1979, 33.

¹⁴ Stafford 2011, 337–38, in her study on late archaic and classical Athenian attitudes towards male masturbation, deriving from sixth-century BCE images and texts from fifth-century playwrights, along with Lucian's account of Peregrinus, dating from the second century CE.

¹⁵ Robson 2013, 139; Stafford 2011, 356, 343.

¹⁶ Stafford 2011, 343. Female masturbation comes up even less in Greek writings and art than male masturbation, however women were not expected to behave with the same dignity as men. Laqueur 2004, 104.

¹⁷ Lines b-d cited in b.Nid. 13b, and parable is likewise cited in b.Nid. 13a.

¹⁸ Another occurrence of this analogy is invoked in regard to females, for a rather different purpose; m.Nid. 5:4 compares the regenerative quality of the hymen of a girl that is younger than three years of age to “one who sticks a finger in an eye.” In other words, just like an eye that tears returns to its original state and is capable of tearing again, so too will the hymen regenerate in a girl younger than three.

The Tosefta offers an analogy to explain the ruling: one who wishes to check if there is something in their eye and does so by poking it with his finger, ends up bringing forth tears. This is comparable to one who often manually checks his genitals for an emission, which similarly elicits an emission. The Tosefta appears to indicate that the ruling banning men from performing multiple examinations is in fact concerned with the emission of semen itself which the rabbis knew to contain seed.¹⁹ Women, in contrast, are not restrained from doing so. Although the Tosefta does not specify the reason for its permissive stance, it is very possible that the problem men have of spilling seed, does not apply to women, since women do not have seed. Admittedly, this is an argument drawn from silence, but as we will see in the section that follows, later texts from the Land of Israel expressly discount the notion of female seed.

2. Leviticus Rabbah 14: *Isha Ki Tazria* – “When a Woman Conceives”

In her book *Conceiving Israel: The Fetus in Rabbinic Narratives*, Gwen Kessler demonstrates how the erasure of the mother’s active role is especially pronounced in Leviticus Rabbah 14, an amoraic midrashic collection from the Land of Israel, whose redaction has been dated to somewhere between the mid-fourth to the end of the fifth centuries.²⁰ Leviticus Rabbah 14 (hereon: LR), is a homily on Leviticus 12:2, “*isha ki tazria*,” and primarily devoted to the subject of childbirth,²¹ but it largely sidelines the mother and disregards her active contribution in forming and gestating a fetus.²² As Kessler details, LR 14 devotes much of its attention to the praise owed to God for intervening at various stages from conception through childbirth. For our purposes, the relevant passages are those discussing conception, which depict the father as the lone source of physical material.

For example, LR 14:2 cites R. Levi, a third-generation Palestinian Amora,²³ who describes the process of conception as a man placing a “drop of the whitest

¹⁹ Satlow reconciles this tosefta by arguing that t.Nid. 2:8 is concerned with “some natural consequence that is negatively charged (erection or the emission of semen)” Cf. Satlow 1994, 142–143. However, it remains unclear how an “emission of semen” is any different from spilling seed.

²⁰ Margulies 1993; Visotzky 2003, 6.

²¹ LR 14 is comprised of nine units; the first seven are homiletic proems, known as *petihtot*, followed by two passages which constitute the body of the homily, introduced with the term *gufa*.

²² Apart from the final passage of the *parasha*, in which R. Abbahu relates that in the messianic era women will no longer give birth in pain, LR 14:8’s possible reference to women determining the gender of boys and 14:9 which depicts something akin to the Aristotelian theory. Gwynn Kessler and Tammy Jacobowitz have both noted the glaring absence of the birthing mother in Leviticus Rabbah 14 and the literary, theological, and psychological factors at play. Kessler 2009; Jacobowitz 2010 chapter 1. In a recent article, I demonstrate how classical rabbinic texts marginalize the birthing mother in one of three ways. She is either absent altogether, a mere receptacle for the fetus, or the passive object of rabbinic discourse. Strauch Schick 2017.

²³ Babylonian sages do not generally appear in Leviticus Rabbah. Margulies 1993, XXXI introduction.

fluid in private,” which God forms into an embryo.²⁴ LR 14:5 states that God “gathers up every single of drop that there is” and inseminates the woman.²⁵ In 14:6 R. Johanan and Reish Lakish discuss how God creates the embryo from the father’s seed, drawing analogy from the process of winnowing to describe God’s intimate involvement in forming the fetus from the “whitest drop.” LR 14:7 states that God is directly involved in sex determination, granting a male child if the laws of family purity are properly observed. This seems to be the culmination of the refrain “All the more so if it is a boy!” which concluded each of the praises of God in passages 2–6.

A shift then occurs with two final passages.²⁶ God is barely mentioned, and the mother, though still sidelined with the focus remaining on the fetus, is also presented as a participant in fetal development. As opposed to LR 14:6, in 14:8 sex determination is depicted as being based on both parents:

גופה. לעולם הזכר מן האשה והנקבה מן האיש

Gufa: Under all circumstances, a male [child] is from the woman (*min ha-isha*) and a female from the man (*min ha-ish*). (ed. Margulies)²⁷

This statement is followed by a series of biblical proof-texts to support this claim followed by two parables. While this statement ostensibly depicts the mother as contributing to the formation of the fetus, it makes no explicit mention of how the parents each physically contribute to fetal development or determining the sex of the child.²⁸ Since LR 14:8, makes no mention of any material contribution or employs any descriptions of an underlying process, read in light of the previous passages, one could conclude that it is God who actively intervenes such that “a male child is from the woman and female from the man.” In fact, since this statement is supported by a series of prooftexts demonstrating that men’s genealogies are ascribed to their mothers, while those of women to their fathers,²⁹ the intent of the

²⁴ LR *Tazria*, par. 14, to Lev. 12:2 (ed. Margulies, 2:301).

For other Palestinian works containing similar depictions, see Bereshit Rabbah, *Bere’shit*, par. 17 Genesis 2:21 (ed. Theodor-Albeck, 1:159); Mekhilta de-Rabbi Ishmael, par. *Be-Shalakh*, mas. *de-Shira* 8 (ed. Horotvitz-Rabin, 144) נותן לאדם בן מטפה של מים דומה לצורת אביו הקדוש ברוך הוא ... נותן לאדם בן מטפה של מים דומה לצורת אביו; Mekhilta de-Rabbi Shimon b Yohai, par. *Be-Shalakh*, 15:11 (ed. Epstein-Melamed, 94) אבל מי שאמר והיה העולם אינו כן אלא נותן לאדם זה בן מטפה של מים דומה לצורתו של אביו.

²⁵ See Visotzky 2003, 167, who reads this passage as a polemic against the Christian doctrine of original sin and Immaculate Conception. The previous *petihtaot* continue to depict the natural threats posed to the life of the developing fetus by the mother’s body and God’s constant kindness in caring for and nurturing it.

²⁶ These are the two passages comprising the *gufa*, or main body of the section.

²⁷ Absent in the Vilna edition of Leviticus Rabbah, but was transcribed by Margulies based on MSS Oxford 147, 2335, Vatican 32, Munich 117 and Genizah manuscripts, following the order of the latter. Margulies 1993, vol. 2:311, n. to line 2.

²⁸ Kessler 2009, 174, n. 85.

²⁹ This might be implied in a parallel text found in Tanhuma (Buber) *Tazria* 4; Warsaw *ibid.* 3, which after citing R. Isaac’s dictum found in the Bavli (see below for citation), states: “R. Hiyya b. Aba said: Therefore, a male is dependent (*nitleh*) on the mother, a female on the father.” R. Hiyya

statement may simply be to describe how genealogy is listed in Scripture, with no connection to embryogenesis.

The final passage, LR 14:9, is somewhat anomalous, presenting a more inclusive depiction of the mother's physical contribution, invoking the metaphor of curdling milk to describe how God forms a fetus from "the whitest drop" falling into menstrual blood. This seemingly corresponds to the Aristotelian model of male sperm giving shape to menstrual blood. Nevertheless, like the other traditions in LR 14, it is the father's "whitest drop" which is described as active, while the mother remains the passive instrument of God's interventions.³⁰

Scholars have long been aware of the pervasiveness of Greco Roman cultural elements and literary motifs in *Leviticus Rabbah*,³¹ and have noted that the traditions of LR 14 which depict the fetus as generated solely from male seed reflect Soranus's one-seed theory.³² A Greek contemporary of the Mishnaic era sages, the Tannaim, Soranus of Ephesus asserted that only the man produces seed which is "planted" into the woman's body, where it develops into a fetus.³³ The woman, in contrast, makes no physical contribution, but merely houses the developing baby. This attitude correlates with the general tone of Greek literature with respect to the mother's role, beginning with Hesiod and continuing to later Roman times.³⁴ For example, in Aeschylus's *Oresteia* Apollo's defense of Orestes for killing Clytemnestra, his own mother, goes in part as follows:

The mother is no parent of that which is called her child, but only nurse of the new-planted seed that grows. The parent is he who mounts. A stranger, she preserves a stranger's seed, if no god interfere ... There can be a father without any mother.³⁵

seems to imply that the previous dictum ascribes gender to the parent of the opposite sex who emits seed first; Scripture therefore pedigreed males through their mother and females through their father. Also see the later midrashic anthology *Midrash Hagadol* (ed. Margulies, 311) for a similar parallel. A support for this interpretation is found in *Sifrei Zuta* on Numbers 27:1, (ed. Horowitz, 317) (cf. parallel *Yalkut Shimoni* Numbers 773), wherein *nitlah* refers to whom one's genealogy is ascribed. See also *ibid.* 6:23, p. 247, parallel *Yalkut Shimoni* Numbers 710.

However, the parable which follows this statement comparing the process to "two people who entered a bathhouse; the one who sweats first leaves first," seems to indicate that it is referring to something biological. Indeed, Jacobowitz notes the wordplay of *תוריע*, emits seed, and *בזיע*, sweats. Jacobowitz 2010, 110.

³⁰ This becomes more apparent below when we see the Bavli traditions, which utilize active verbs to depict the mother's material role.

³¹ See Boyarin 1993; Balberg 2014; Visotzky 2003, 29, 48–58 which demonstrate how LR conforms to Hellenistic Provencal literature.

³² Kessler 2009, 92–93.

³³ Temkin 1991, 12, §1.12.

³⁴ Studies which address this issue include Frymer-Kensky 1992, chap. 19; Dinnerstein 1976; Pomeroy 1995; Cantarella 1986; Zeitlin 1978.

³⁵ Frymer-Kensky 1992, 204; Grene 1969, 158 lines 658–666. LR 14:5 also condemns both parents for being too interested in sex to consider the needs of the developing child. God rather acts as father, placing the semen in the mother's womb.

Apollo justifies Orestes' act claiming that a mother is not active in the process of procreation and therefore not a true parent. As in *Leviticus Rabbah* 14:2, the father is regarded the lone source of seed and the sole parent, while the mother is a "stranger." Apollo also likens a mother to mere soil in which a seed is planted and "preserved" as it grows,³⁶ a view echoed in *LR* 14:4, in which she is a vessel which houses the male seed that develops into a child. The inherent alienation between mother and child emphasized by Apollo is similar to the attitude evinced by *Leviticus Rabbah* 14:2's analogy of the fetus to one confined in jail to whom "no one pays attention,"³⁷ implicitly characterizing the relationship between mother and fetus as estranged and neglectful.³⁸

Although a one-seed theory was not the dominant position among Greek theorists, it is quite apparent that the author(s) of *Leviticus Rabbah*, and possibly the *Targumim* and *Tosefta*, mostly embraced this view.³⁹

The Bavli: Two-Seed Theory

A different picture emerges from the *Bavli*, in which an array of halakhic and aggadic passages all seem to depend on a two-seed theory following either the Aristotelian or Hippocratic models. I first turn to the aggadic passages, since they most explicitly reflect the belief in the existence of female seed and have received more attention from scholars.

3. *B. Niddah* 30b–31b: *Isha Ki Tazria* – Female Insemination

The third chapter of *b. Niddah* centers on the ritual status of a parturient, but the concluding *sugya* of the chapter (30b–31b) consists of an aggadic cluster dealing with conception, embryology, pregnancy, and birth.⁴⁰ While significant portions conform to *Leviticus Rabbah* 14 in both content and form⁴¹ – indeed the *Bavli sugya* seems to have been based on *LR* 14 or an earlier shared source – several passages diverge significantly from *LR* 14 by describing women's seed and her material contribution to conception and embryogenesis.

³⁶ In Greek Mythology Apollo generates Athena without a mother. Kessler 2009, 119–120.

³⁷ *LR, Tazria, par. 14*, to *Lev. 12:2* (ed. Margulies, 2:302).

³⁸ Jacobowitz 2010, 63–64.

³⁹ Excepting 14:9.

⁴⁰ On aggadic clusters devoted to one topic see Friedman 1993, 120; Weiss 1962, 171–174, 194–281.

⁴¹ In a separate article, I detail how *LR* 14 has been reworked in the *Bavli* with the competing *Bavli* traditions into a *sugya* comprising a chiasmic structure. See Strauch Schick 2019. On the use of *Leviticus Rabbah* in the *Bavli*, see Margulies 1993, XXXI in his introduction.

One tradition, introduced as a baraita,⁴² describes “three partners in a person: The Holy One, blessed be He, his father, and his mother,” and then lists the physical elements that each contribute to the developing fetus.⁴³

אביו מזריע הלובן שממנו עצמות וגידים וצפרנים ומוח שבראשו ולבן שבעין.
אמו מזרעת אודם שממנו עור ובשר ודם ושערות ושחור שבעין.
והקב"ה נותן בו רוח ונשמה וקלסתר פנים וראיית העין ושמיעת האוזן ודבור פה והלוח רגלים ובינה והשכל.
וכיון שהגיע זמנו להפטר מן העולם – הקדוש ברוך הוא נוטל חלקו, וחלק אביו אמו מניח לפניהם

His father emits (מזריע) the white [substance] out of which the bones, tendons, nails, the brain in his head, and the white in his eye are formed.

His mother emits (מזרעת) the red [substance] out of which the skin, flesh, blood,⁴⁴ hair, and the black of the eye are formed.

And the Holy One, blessed be He, gives him the breath, soul, the features of the face, eyesight, the hearing of the ear, the speaking of the lips, the walking of the feet, understanding, and wisdom.

When his time to depart from the world comes, the Holy One, blessed be He, takes away his share and leaves the share of his father and his mother with them.

A similar tradition appears following a group of traditions which strongly parallels LR 14 and its theocentric view of procreation, attributed to R. Isaac b. R. Ami (third-generation Babylonian amora).⁴⁵ Recalling LR 14:8, R. Isaac discusses sex determination through both parents:

אמר רבי יצחק אמר רבי אמי: אשה מזרעת תחילה יולדת זכר, איש מזריע תחילה יולדת נקבה, שנאמר
אשה כי תזריע וילדה זכר.

⁴² It is introduced with the formal attribution of a tannaitic teaching; yet no such baraita is found in tannaitic literature. Higgen 1942, 5:57; Higgen 1943, 6:448; Kiperwasser 2009. See discussion below.

⁴³ Although this tradition has been viewed by modern scholarship as the dominant rabbinic position regarding gender selection (see Kottek 1981, 305), Kessler notes it is anomalous (Kessler 2009, 79, 173 n. 83).

⁴⁴ Following MS Munich 95, Vatican 110–111, Vatican 113; blood is absent from the printed editions. Blood is also listed in the parallel passages found in the Yerushalmi (y.Kil. 8,4) and its later eighth century citation in *She'iltot on Parashat Yitro*, 56.

⁴⁵ MS Paris, Bibliothèque Nationale-Heb. 671 attributes this statement to R. Isaac in the name of R. Ami, both Babylonian sages who emigrated to the Land of Israel and who appear together in the Bavli and Yerushalmi. This is likewise how the attribution appears in b.Nid. 31b. Michael Satlow prefers this reading and thus concludes that the view maintaining that if the woman emits seed first (which he defines as climaxes first), a male child will be born is attributed only to Palestinian sages, see Satlow 1995, 304. Joshua Levinson counters that R. Isaac b. R. Ami is the preferred version (Levinson 2000, 124, nt. 32). I have followed Levinson, yet irrespective of the correct version, this tradition is cited only in the Bavli and nowhere in extant Palestinian literature.

A similar statement is cited in b.Nid. 71a in the name of R. Hama b. R. Haninah, a Palestinian sage. Perhaps relatedly, the printed edition of b.Ber. 5b cites a tradition issued by R. Hama b. R. Hanina in the name of R. Isaac (or as two alternative tradents as in MS Paris, Bibliothèque Nationale – Heb. 671) stating another way to ensure male offspring; placing one's bed north to south. (MS Firenze, Biblioteca Nazionale central- II.1.7 cites another tradent as an alternate to R. Hama b. R. Haninah, חמא בר' חנינא ואמרי לה ר' ינח).

R. Isaac said in the name of R. Ami: If a woman emits seed (מזרעת) first, she bears a male. If the man emits seed (מזריע) first, she bears a female. As it is said, “*Isha ki tazria ve-yalda zakhar*,” When a woman emits seed and bears a male.”

In contrast to the targumim and LR 14, R. Isaac’s tradition understands *ishah ki-tazria* in its literal sense, as depicting a female equivalent of seed emission.⁴⁶

Although the “three-partners” tradition is introduced with the formal attribution of a tannaitic statement, *tanu rabbanan*,⁴⁷ our rabbis taught, as many have noted, this is suspect.⁴⁸ In the Yerushalmi’s version (y. Kil’aim 8,4 [31c]) this attribution is lacking and there is no explicit reference to seed. The Yerushalmi version rather states:

הלובן מן האיש שממנו מוח ועצמות והגידים והאודם מן האשה שממנה העור והבשר והדם והרוח והנפש והנשמה משל הקדוש ברוך הוא ושלשתן שותפין בו

The white [substance comes] from the man, from whom the brain, bones, and tendons [are provided], and the red [substance comes] from the woman, from whom the skin, flesh and blood [are provided]. And the breath, spirit and soul [come] from the Holy One, blessed be He. And all three are partners in his [creation].⁴⁹

R. Isaac’s statement also finds a close parallel in Leviticus Rabbah 14:8 (ed. Margulies),⁵⁰ which attributes male offspring to mothers and females to fathers. While there are certainly similarities between them – indeed many scholars regard Leviticus Rabbah 14:8 as the Palestinian parallel of R. Isaac’s statement⁵¹ – as noted above, Leviticus Rabbah mentions neither seed nor how the parents physically contribute to fetal formation. As such, although it is presented as a baraita, the traditions depicting females emitting seed are only expressly found in the Bavli.⁵²

⁴⁶ R. Isaac’s tradition is reported elsewhere in the Bavli to challenge tannaitic teachings, such as in the case of a baraita which links gender selection with prayer and hence an act of God, as opposed to R. Isaac who maintains that the embryo results from the biological contributions of both parents (b. Ber. 60a).

Also see b.BQ 92a; b.Nid. 70b–71a; b.Ber. 54a. A similar assumption underlies b.Hul. 69a regarding animals where the anonymous *sugya* concludes that the seeds of the male and female are mixed to form an embryo.

⁴⁷ Its later parallel in Ecclesiastes Rabbah 5:10 reads “Tanni.”

⁴⁸ *Supra* n. 42.

⁴⁹ Kipperwasser also points out that the parallel Yerushalmi version is not attributed to Tannaim and that this tradition was therefore taken from its original context regarding the respect due to parents and God (b.Kid. 30b) and placed into a new one pertaining to fetal formation. Kipperwasser 2009, n. 15.

There are several other differences which Reuven Kipperwasser discusses in detail. Kipperwasser 2009, 12–15.

⁵⁰ *Supra* n. 26.

⁵¹ Levinson 2000, 124, n. 32.

⁵² For a late parallel see Ecc. Rabbah 5:10 and Kipperwasser 2009 for a discussion of this tradition.

Several previous studies have demonstrated that these Bavli traditions appear to be informed by a two-seed theory,⁵³ where both man and woman produce seed which together form the embryo. The description of what each parent contributes to the developing embryo particularly resonates with the Aristotelian modified two-seed theory, positing that women supply menstrual blood, which is shaped by the male seed to create an embryo,⁵⁴ along with the Hippocratic concept of pangenesis “that each part of the body of each parent renders up some aspect of itself.”⁵⁵ Additionally, the description of female seed having the same ability to determine gender as male seed finds parallel in Hippocratic texts,⁵⁶ such as “On Generation” 4.1, “if her desire for intercourse is excited, she emits semen before the man.”⁵⁷

Significant analogues with Zoroastrian texts point to the prevalence of these Greek theories in Sasanian Persia, which spans the period of the Babylonian Amoraim and redactors of the Babylonian Talmud.⁵⁸ The Middle Persian cosmological work known as the *Bundahišn*, or “Primal Creation,” describes the mother as emitting seed in a remarkably similar manner to R. Isaac b. R. Ami’s statement and parallel pseudo-baraita (b.Niddah 31a). In *Bundahišn* 15:4 we find:⁵⁹

... when the time of conception has come, if the seed of the man is stronger, a son is conceived. And if that of the woman is stronger, a daughter. If both seeds are equal, then twins and triplets result from it.⁶⁰

Notwithstanding clear differences – the parents’ roles are reversed and in the *Bundahišn* sex is determined by whose seed is stronger, whereas in the Bavli, it is based on whose seed is emitted first – like the Bavli text, this passage attributes seed to both father and mother and depicts their equal abilities to determine the

⁵³ Brodsky 2006, 160, nt. 104; Kessler 2009, 108; Kiperwasser 2009.

⁵⁴ *Generation of Animals*. Peck 1942, 716a, 729b, 737a 5. Although some scholars argue that Aristotle is more in line with one-seed theories, his view that women contribute menstrual blood in embryogenesis distinguishes him from the latter. See Connell 2016, 100–106.

⁵⁵ Laqueur 1990, 39.

⁵⁶ Hippocrates, *On Generation (De genitura)* 4.1 (7.474 L.). Furthermore, in Hippocratic theories, neither seed is inherently stronger than the other. Brodsky 2006, 141.

⁵⁷ Van der Horst 1994, 210. This is as opposed to Galen, who understands female seed as significantly weaker than the male’s due to her lack of “natural heat.” Galen, *On Semen* 2.2, 2.4, de Lacy 1992, 50; Galen, *On the usefulness of the parts of the body*, 2.630 1968. The influence of the Hippocratic school in both the Eastern Roman Empire and Babylonia has been long noted. See Brodsky 2006, 129, n. 24, for a bibliography.

⁵⁸ In recent years, scholarship championed by Yaakov Elman has demonstrated many affinities, shared institutions, and theologies common to the Babylonian Talmud and Middle Persian texts. See Secunda 2013 for an introduction to the field of Talmudo-Iranica.

⁵⁹ Reuven Kiperwasser 2009 has explored the Bavli’s three-partners tradition and its espousal of a two-seed theory, and has also concluded that it likely reflects the *Bundahišn*. Since he has discussed it in detail, I provide only a short citation of one particularly relevant passage from the *Bundahišn*, which like the Bavli, attributes sex determination to male versus female seed.

⁶⁰ All citations from *Bundahišn* are from the Middle Persian Dictionary Project, Agostini 2016.

sex of the fetus.⁶¹ Though the tenth-century composition of the *Bundahišn* significantly postdates the Bavli traditions, it includes older Iranian traditions, such as Old Avestan as well as Sasanian material that had been transmitted orally for centuries.⁶² Recent studies have also demonstrated several instances in which the Bavli includes textual formulations that are found in the *Bundahišn*.⁶³ In this instance, the affinity to the Bavli tradition appears to reflect the acceptance of a two-seed theory in Sasanian Persia, which would be expected given the overall greater prevalence of that model in the ancient world.⁶⁴ The reappearance of a two-seed theory in the Bavli may have a good deal to do with the diffusion of Galenic and Hippocratic medical knowledge in Sasanian Persia during the fifth-sixth centuries.⁶⁵ Hence, a tradition which in LR 14 merely alludes to the mother's physical contribution is made to overtly express the idea that the mother likewise releases seed when conceiving.

Many have noted that the aggadic material in the Bavli endorses a two-seed theory. In the sections that follow I argue that several halakhic texts also indicate that such a view was prevalent in Babylonian rabbinic circles.

4. *Hargasha*: The Feeling Accompanying Menstruation

The presumption that women emit seed may underlie several halakhic texts, including the first-generation Babylonian Amora Samuel's famous and enigmatic dictum regarding a menstruating woman:

אמר שמואל: בדקה קרקע עולם וישבה עליה ומצאה דם עליה טהורה שנאמר (ויקרא טו) 'בבשרה' עד שתרגיש בבשרה.

Samuel said: If a woman checked the ground, and sat down on it, and [upon standing] finds blood on it- she is pure, for it states (Leviticus 15:19) "in her flesh," until she feels it in her flesh.⁶⁶

⁶¹ See Vrat Sharma 2001, vol. II, pt. II, p. 3 (on the descent of the embryo), for another appearance of this tradition; Sohn 1996, 16–17, in his section on embryogenesis, which is based on the medical treatise of Zādspram; Gignoux and Tafazzoli 1993. Kiperwasser also discusses other *Bundahišn* passages which describe what each parent contributes in similar manners to the Bavli. Kiperwasser 2009, 29–30.

⁶² The *Avesta* was transmitted orally for almost two millennia and was only written down after Zoroastrian priests created an alphabet in the mid-sixth century. Bailey 1971, 159–176; Elman 2007, 167. See Kiperwasser 2009, n. 59, for an extensive bibliography.

⁶³ Kiperwasser and Shapira 2008.

⁶⁴ It also bears mentioning the parallels between the laws of menstruation that appear in the Bavli with Middle Persian literature. See Secunda 2020. This constitutes another parallel development regarding the female body between the two legal systems.

⁶⁵ This was due to the influx of Nestorian refugees from Edessa in the Byzantine empire in 431, which included many physicians. By the sixth century, Sasanian medical knowledge was thoroughly Hellenized. Pfister and Bellamy 1992, 90.

⁶⁶ B.Nid. 57b.

As opposed to the mishnaic view, which takes for granted that the presence of blood alone is sufficient grounds for causing menstrual impurity,⁶⁷ Samuel (or the redactors)⁶⁸ rules that a woman must first “feel it in her flesh” to be rendered a menstruant. This passage does not elaborate what it is that a woman feels – indeed, its meaning has baffled centuries of Talmudic scholars⁶⁹ – but Samuel is also cited as issuing a remarkably similar requirement regarding men, which sheds considerable light on the meaning:

אמר שמואל: כל שכבת זרע שאין כל גופו מרגיש בה – אינה מטמאה

Samuel said: Any semen that is not felt throughout one’s entire body does not convey impurity.⁷⁰

Similar to the ruling regarding a menstruant, Samuel requires that a man *margisha ba*, experience the feeling of ejaculation for the seminal emission to cause impurity. Although here too Samuel does not elaborate what RGSH refers to, m.Niddah 5:2 employs the verb RGSH in describing the feeling of male arousal, and there its meaning is abundantly clear:

... היה אוכל בתרומה והרגיש שנודעו אבריו או חזו באמה ובולע את התרומה

... If he (a priest) is consuming *terumah*, and he feels his limbs (i. e. genitals) trembling, he grasps his penis⁷¹ (to prevent the semen from coming out) and swallows the *terumah*.

The feeling experienced by men leading up to ejaculation is described as a trembling in his genitals.

The reference to RGSH regarding a menstruant seems to invoke this Mishnah and its description of the male experience nearing sexual climax. Tirzah Meacham has noted that the fact that both rulings mention RGSH in regard to male ejaculation and the onset of menstruation seems to indicate that the requirement for a woman to experience some sort of feeling upon the onset of her period mirrors the experience of male ejaculation.⁷² Just as men experience a feeling accompanying seminal emission, which in turn is necessary to render them impure, women must also experience a similar feeling in her parallel form of impurity. The biblical text

⁶⁷ E. g. m.Nid. 1:1–2; 2:2; 8:3; 9:1–2; 10:1.

⁶⁸ While the second half, introducing the notion of sensation is presented as part of Samuel’s statement, some have argued that it is a later addition and Samuel’s actual ruling is concerned with the location of where the bloodstain is found. Cohen 2003; Hoffman Libson 2018, 81–88. As Cohen notes, the dissonance between the two halves of Samuel’s statement was already observed by the 18th-century Rabbi Ezekiel Landau (*Noda beYehuda, Yoreh De’ah* I:55). The precise author of this rule is somewhat secondary for my discussion.

⁶⁹ See e. g. Maimonides *Mishneh Torah: Isuri Biah* 5:17; Tosafot b.Nid. 3a s. v. *margasha*; Tosafot HaRid b.Nid. 57b s. v. *amar*; *Terumat Hadeshen* 246; Aruh Hashulhan *Yoreh De’ah* 183: 47–48; Responsa of R. Moshe Schick *Maharam Schick: Yoreh De’ah*, 177; R. Eliezer Waldenberg, *Ziz Eliezer* 6:21.

⁷⁰ B.Nid. 43a.

⁷¹ Lit. *amah*, (forearm, cubit) referring to the shaft of the penis.

⁷² See Meacham 2013.

in Leviticus 15 itself seems to associate menstruation with ejaculation, presenting them as parallel forms of impurity in men and women, in the same manner as *zav* and *zava* (men and women experiencing abnormal genital emissions) are paralleled.⁷³

Elsewhere, in b.Niddah 13a, an explicit connection is made between RGSH and arousal, though the anonymous redactors seem to draw a different conclusion than that of Samuel's dictum. In explaining the tannaitic ban on genital manual examination for men but encouragement of the practice for women in m.Niddah 2:1, the Bavli's anonymous discussion explains:

מ"ש נשים ומאי שנא אנשים? נשים לאו בנות הרגשה נינהו משובחות, אנשים דבני הרגשה נינהו תקצץ

What is the difference between men and women? Women, who are not subject to *hargasha*, are praiseworthy. Men, who are subject to *hargasha*, [their hands] should be cut off.⁷⁴

The Bavli makes an explicit connection between the prohibition against examinations that might involve stimulation of the penis and *hargasha*, the feeling of arousal that accompanies ejaculation: Since men are subject to *hargasha*, which clearly invokes m.Niddah 5:2 (והרגיש שנוזעזעו אבריו) to mean the feeling of arousal leading up to ejaculation, they are therefore banned from multiple examinations. Women, in contrast, are not subject to *hargasha*, the feeling of arousal leading to ejaculation, and hence are permitted (and encouraged) to perform multiple internal examinations. This correlates with Satlow's assertion that masturbation, understood as a problem of wasting seed, was a concern for the Bavli redactors.⁷⁵ The Bavli redactors thus make an explicit link between RGSH, arousal, and seed emission. Although this means that the Bavli *sugyah* discussing m.Niddah 2:1 contradicts Samuel's dictum – somewhat surprising given that Samuel's dictum is granted halakhic authority earlier in b.Niddah, both in a statement attributed to the third generation Babylonian sage Rabbah (b.Niddah 4b) as well as in the anonymous strata⁷⁶ – it is certainly not impossible. Alternatively, it is conceivable that the anonymous discussion in b.Niddah 13a merely represents an interpretation of the Mishnah's ruling in line with the Tosefta, and not the view of the later anonymous redactors.

Envisioning menstruating women as experiencing the same sensation as men upon ejaculation, implies that menstrual blood itself was perceived as something

⁷³ Meacham 2013.

⁷⁴ B.Nid. 13a.

⁷⁵ He explains this as reflecting the Zoroastrian concern with spilling seed evidenced in texts from the period. Cf. Satlow 1994, 161–162. David Brodsky discusses the relationship between spilling seed and murder found in Babylonian rabbinic texts (e.g. b.Nid. 13a–b, citing Mas. Kallah. 18–19) and how it reflects Aristotle's understanding of embryogenesis and the role of semen as possessing soul and giving shape to female menstrual blood, Brodsky 2006, 50–51, 159–162; M. Satlow 1994, 159.

⁷⁶ See b.Nid. 3a. By contrast, Tirzah Meacham argues that these two instances of *hargasha* are used in different ways. Meacham 2013, 153–168.

akin to male semen. Just as the Bavli traditions at the end of b.Niddah chapter 3 seems to regard menstrual blood as female semen in their depictions of embryogenesis, Samuel's dictum understands the emission of menstrual blood to mirror men's experience of ejaculation.

Charlotte Fonrobert has seen Samuel's ruling as an exception to the androcentric discourse of the Bavli with regard to the female body. This is because, she explains, it depicts the female body as an "animated" and "sentient entity" which renders her body "at least partially inaccessible to its androcentric objectification in halakhic discourse" and that introducing "the principle of sensation in a sense restores her body to the woman."⁷⁷ However, I would argue that Samuel's ruling is rather conflating the male and female experience following the Aristotelian model;⁷⁸ he is not relying on the woman's subjective sensation but is assuming all women to feel the onset of menstruation the way that men feel ejaculation.

This specific association between menstrual blood and semen also finds direct parallel in Aristotle's description of embryogenesis.⁷⁹ As noted previously, Aristotle's modified two-seed theory regards menstrual blood as the female contribution to fetal formation,⁸⁰ and in his *Treatise on the Generation of Animals*, he explicitly describes menstrual fluid as:

... the analogous thing in females to the semen in males. Its behavior shows that this statement is correct. At the same time of life that semen begins to appear in males and is emitted, the menstrual discharge begins to flow in females ...⁸¹

Indeed, Aristotle equates menstrual blood with semen on several occasions.⁸²

⁷⁷ Fonrobert 2002, 72.

⁷⁸ I also disagree with her skepticism that the rabbis were aware of Greco-Roman gynecological literature (though she acknowledges convergences and that showing these convergences "adds to our understanding as to how the rabbis located themselves in relationship to the larger cultural context of late antiquity," Fonrobert 2002, 11.).

⁷⁹ This is as opposed to Galen and Hippocratics who describe women's generative contribution as white fluid emitted at sexual climax. See e. g. *On Generation* 4.1–5.1 (7.474–477 L.).

⁸⁰ *Treaties On the Generation of Animals* 2.716a5–7, 2.4.738b20–23.

⁸¹ Peck 1942, 726b–727a.

⁸² See Connell 2016, 103–104 for a list of references. *Historia Animalium* (634b29–39; 636a4–8) explicitly links women's seed emission with sexual climax. Scholars debate whether *Historia Animalium* was indeed authored by Aristotle, Dean-Jones 2012. Connell 2016, 106–107, however, argues that it is consistent with Aristotle's other known works in depicting menstrual blood as female semen. Although Aristotle contradicts this in *Generation of Animals* (727b34–728a1), in both he maintains the necessity of menstrual blood in embryogenesis. Connell 2016, 106. Proponents of two-seed theories, Galen and Hippocratics, state explicitly that, like men, women emit white semen at sexual climax. (Sem. II.1, 25–26, Galen, 1992, 150–151). However, Soardi qualifies that, although in Aristotle's model of reproduction male and female secretions are analogous, they represent vastly different functions, "Male residue is the seed through which form and essence is transmitted to the cold female menstrual matter." Soardi 2018, 102–103. In other words, while sperm is likewise derived from blood, its heat and purity are what imbibe it with reproductive abilities, while menstrual blood is merely cold – infertile – fluid waiting to be given shape by the sperm.

Presumably the three-partners tradition reported in the Bavli, which posits that the man emits a white seed which forms various white body parts, while the female seed is red, is referencing if not Aristotelian theory itself, one that similarly viewed female seed as contained in menstrual blood.

The understanding of parallel physiological experiences in men and women represented in Samuel's ruling also finds an analogue in the Zoroastrian Bundahišn which describes the feeling of female arousal in terms remarkably reminiscent of the Mishnah's description of a feeling preceding ejaculation. Regarding the physical union of the first man and woman, Bundahišn 14:28 states:

On the completion of fifty years, they forthwith thought about the desire of progeny, first Mašē, and then Mašyānē;

[4] for, he Mašē told to Mašyānē: "When I see this womb of yours, that organ of mine rises very much";

[5] then Mašyānē said:

[6] "Brother Mašē! When I see⁸³ your excited penis (*kēr*) my womb (*aškom*) trembles (*drafšēd*)⁸⁴

Like, m.Niddah 5:2, Bundahišn 14:28 describes the feeling of arousal as one of trembling. If we assume that the use of *RGSH* in Samuel's rule with regard to women parallels that in regard to men (which the similar terminology seemingly indicates) then, like Bundahišn, a woman's experience of physical arousal would be understood as an internal trembling.⁸⁵

Meacham has also demonstrated how another concept unique to the Bavli, *dam ḥimud*, blood of desire, reflects the assumption that menstrual blood was regarded as female seed. This concept, found only in the Bavli and only in the names of Babylonian rabbis, the third-century sage R. Eleazar (b.Niddah 20b) and the influential fourth-century sage, Rava (ibid., b.Niddah), posits that a woman's feelings of desire in anticipation of a sexual encounter can lead to a discharge

⁸³ Neis 2013 Chapter Four, "Visual Eros," describes how across ancient sources from Mesopotamia to Greece, vision is associated with the arousal of desire and that the paradigm of vision usually has the masculine gaze upon the feminine object of desire. She points out that there is a "clearly sexed, gendered, and seer/seen binary" and that "the phallic eye must be stimulated by its visual object." (Neis 2013, 123) See also Squire 2016, 26, who similarly notes that in Greek writings and art, the act of seeing is often conceptualized as a sexual one and that "the acts of seeing on the one hand, and of being seen on the other, were bound up with ideas not only about sexual desire, but also thereby about relations between the masculine and the feminine: not for nothing is the penetrating glance of the eye so often likened to the invasive force of the phallus."

Bundahišn 14:28 thus represents an exception to this common gendered binary, as Neis observes, since this text depicts both the male and the female as having been led to arousal by looking upon the genitalia of their respective partner. Neis 2013, 123, n. 35.

⁸⁴ Mackenzie 1986, 27 s. v. *drafšidan*, *drafš*-[*dlpš-ytn*]/*P drfš-N*-] I. shine; 2. tremble.

⁸⁵ Hippocratic writers likewise describe a woman's orgasm and ejaculation as a tremor and shiver. Laqueur 1990, 49. This is also how the medieval scholar Maimonides describes the female experience of *hargasha* in his codex of Jewish Law. Maimonides, *Mishneh Torah: Isurei Biah* 5:17. I return to this below.

of uterine blood. Rava is cited as ruling that a woman is required to count seven clean days in anticipation of her marriage, irrespective of whether she has reached puberty, since the prospect is likely to arouse her (b.Niddah 66a). Although some argue that the idea of *dam ḥimud* finds no parallel in extant contemporaneous medical literature,⁸⁶ *History of Animals* book VII, part 2 describes the appearance of extra “*katamenia*” or menstrual blood reappearing multiple times in a month due to “excessive desire.”⁸⁷ This all correlates with the Bavli’s understanding of menstrual blood as female seed and with the tendency to view women’s experience through the paradigm of the male one; just as the anticipation of sex can lead to a physical response in men that includes unbidden ejaculation, the same was assumed of women.⁸⁸

In sum, rabbinic works from the Land of Israel espoused a one-seed theory: women were not understood to produce seed contributing to fetal formation, and were incapable of wasting seed. While the Bavli contains many such Palestinian traditions, several passages in the Bavli also imply a two-seed theory, presuming women to possess seed, seemingly in the form of menstrual blood, which contributes to the formation of the fetus. This has a significant implication for the laws of menstrual impurity, for, as opposed to tannaitic law, women must first experience an internal physical sensation, akin to male arousal preceding ejaculation, in order to be rendered a *niddah* upon discovering evidence of menstrual blood. Women are also believed to discharge *dam ḥimud*, uterine blood due to feelings of arousal. Although the Bavli contains no independent ruling about female wasting seed, the rationale behind the mishnah’s permissive stance, is explained using Shmuel’s terminology- that women are not subject to *hargasha*. Since the Bavli in Niddah 57b (along with many other sugyot particularly in the first chapter) seems to accept this innovation, it is possible that 13a merely represents an interpretation of the Mishnah’s ruling and not the view of the later redactors, or a view that rejects Samuel’s ruling.

5. The Medieval Period

Greco-Roman theories dominated medical discourse through the medieval and Renaissance eras, and several rabbinic sages of medieval Sefarad followed along the lines of their talmudic, particularly Babylonian, predecessors. As self-proclaimed proponents of Greco-Roman knowledge, they explain various issues in light of Greco-Roman and specifically Aristotelian science.⁸⁹

⁸⁶ Meacham, 1995.

⁸⁷ Wentworth Thompson 2015, bk. VII, p. 3. *Supra* n. 82.

⁸⁸ Meacham 1995, 82–89.

⁸⁹ I do not present a thorough survey of all the medieval sources, but rather a sampling of some relevant passages.

Both Abraham ibn Ezra of the 12th century and R. Moses b. Nahman (Nahmanides) of the 13th century in their commentaries to Leviticus 12:2, explain *isha ki tazria* like the Bavli tradition, as reflecting the Aristotelian two-seed theory and hence the assumption that women emit seed. Citing פילוסופי היונים, “the Greek philosophers”, Nahmanides offers a version of the Aristotelian theory, explaining in detail the formation of the embryo through male sperm giving shape to the female’s menstrual blood. Ibn Ezra similarly attributes his understanding to חכמי יון, the Greek sages.⁹⁰

In a related ruling regarding m.Niddah 2:1 and the Bavli’s corresponding discussion, Nahmanides in his talmudic commentary to b.Niddah 13a explains that women are indeed subject to a prohibition against spilling seed. Nonetheless, the Mishnah encourages genital examinations by women because it believes that they tend not to become aroused through manual stimulation.⁹¹

Finally, regarding the Bavli innovation that a woman is only impure as a menstruant if she first experiences a *hargasha*, Nahmanides is silent,⁹² but another rabbinic authority of Spanish extraction, Maimonides, offers an explanation almost identical to the Mishnah’s description of male arousal during ejaculation. In his codex of Jewish law (*Mishnah Torah, Issurei Bi’ah* 5:17) Maimonides provides a definition of *hargasha* in discussing a case where a woman discharges blood while urinating:

האשה שהשתינה מים ויצא דם עם מי רגלים ... הרי זו טהורה, ואפילו הרגיש גופה ונודעוזה אינה חוששת שהרגשת מי רגלים היא זו שאין מי רגלים מן החדר ודם זה דם מכה הוא בחלחולת או בכוליא.

When a woman urinated and excreted blood together with the urine ... she is pure, even if she has physical sensations and her body trembles, she need not suspect [that the blood originated in the uterus]. Instead, the sensation is associated with her urination [and] urine does not originate in the uterus. This blood [rather stems from] a wound in the colon or in the kidney (which does not render her impure).

The strikingly similar language to m.Niddah 5:2’s description of the male experience of ejaculation, suggests that Maimonides borrowed that Mishnah’s formulation. The only difference is that whereas the trembling there is described as in the male’s genitals, Maimonides describes the woman’s sensation as within her body, most probably in her womb.

Where the Spanish sages, like their Babylonian predecessors, utilize Greco-Roman scientific theories in both halakhic matters and biblical interpretation, their counterparts in medieval Ashkenaz took a very different approach. The bib-

⁹⁰ See also Ibn Ezra to Gen. 17:17 where he states that embryos are formed from the woman’s blood. On scientific discourse in Ibn Ezra’s commentary, see Biale 1974.

⁹¹ Maimonides in his commentary to m.Nid. 2:1, in contrast, does not relate to the issue of wasting seed in his ban on arousing the penis through manual stimulation, but regards it an evil in and of itself in men.

⁹² Though *Hiddushei HaRamban* b.Nid. 57a s. v. *ve-inyan* posits that not everyone agrees with the requirement of *hargasha*.

lical commentaries of Rashi and Rashbam, and the Talmudic glosses of Tosafot offer interpretations aligned with halakhic rulings and their own exegesis. Neither Rashi (R. Shlomo Yitzhaki) nor his grandson Rashbam (R. Samuel b. Meir) mention biology or offer a scientific theory as underlying Leviticus 12:2. Rashbam *ad loc.* rather explains *ki tazria* as “when she becomes pregnant,” and Rashi offers homilies and laws deduced from the verse. Regarding Mishnah Niddah 2:1 and its encouragement of women’s genital examinations, Rashi’s younger grandson, R. Jacob b. Meir (known as Rabbeinu Tam) twice explains this as a purely legal issue: *לאו בנות איסור הרגשה* is interpreted as *לאו בנות הרגשה*, women are not subject to a *prohibition* against wasting seed, just as they do not have an obligation to procreate.⁹³ Although this could mean that women do not have a prohibition against wasting seed even if they do experience arousal,⁹⁴ there is no explicit reference made to their anatomical experience. As such, all that may be definitively said is that Rabbeinu Tam does not expressly invoke a biological or scientific theory.

This is certainly not surprising and comports with the absence of philosophical argumentation and scientific knowledge in Ashkenazi texts generally, which reflect the fact that Ashkenaz Jewry was generally unfamiliar with Greek writings.⁹⁵ The difference between the Ashkenazic and Sefardic authors in this area thus reflects a larger divide between the two centers that is manifest throughout medieval rabbinic literature.⁹⁶

6. Conclusion

In this contribution, I have shown how varying sources of “preferred medical knowledges”⁹⁷ in Sasanian Persia and Roman Palestine contributed to how the rabbis understood the workings of the female body; understandings which are reflected in the texts they produced. Rabbis in medieval Spain, which saw a renewed engagement with Greek writings, similarly saw this knowledge as underlying interpretations of both the Hebrew Bible and talmudic law. By contrast, rabbis of medieval Ashkenaz disregarded them.

Aside from the larger issues this study touches upon regarding the role of science and external knowledge in shaping *halakhah*,⁹⁸ it adds to our understanding

⁹³ See commentary of Tosafot to b.Nid. 13a, b.Yeb. 12b.

⁹⁴ See Rabbi Nissim ben Reuven of Gerona (14th c.), commentary to b.Nid. 13a, s.v. *nashim*, who suggests this interpretation of Rabbeinu Tam.

⁹⁵ This is true even in instances in which Greco-Roman works were available to Ashkenazic Jews through Sefardic Hebrew translations. Lasker 1996, 197; Berger 2009, 28.

⁹⁶ See Diner and Freudenthal 2009, a volume devoted to this very topic and specifically Soloveitchik 2009.

⁹⁷ Peskowitz 1997, 9.

⁹⁸ Along with the irony that what were regarded as enlightened interpretations of Torah and *halakhah*, are obsolete, while those which are internally focused retained a degree of timelessness.

of how the authority to speak about women's bodies often devolves from larger sources of authority, whether rabbinic or medical expertise. Although the rabbis were often relying on contemporary sources of medical knowledge rather than their own understanding of female anatomy, for *halakhah* as for medicine "the category of trustworthy knowledge, is masculine"⁹⁹ and tends to reinforce attitudes regarding masculine dominance across a range of social roles.¹⁰⁰

In describing women's bodies in terms of authoritative masculine knowledge, women are both excluded from the discourses which define and circumscribe them and are denied having true knowledge of their own bodies. Ultimately, however, the overwhelming absence of women as participants in these discourses and the lack of texts attesting to their own experiences leave us largely ignorant as to the effects that the masculine reconstruction of the female body had on the lives that women actually lived and their own understanding of their bodies. An ignorance which the rabbinic authors could scarcely have conceived of.

Bibliography

- Agostini, Domenico, trans. 2016. "Middle Persian Dictionary Project: Dictionary Compilation Utility." Cited 19 February 2016. Online: At <http://mpdp.mpdic.com>.
- Arthur-Katz, Marilyn. 1989. "Sexuality and the Body in Ancient Greece." *Mètis. Anthropologie Des Mondes Grecs Anciens* IV: 155–179.
- Bailey, Howard Walter 1971. *Zoroastrian Problems in the Ninth-Century Books (Ratanbai Katrak Lectures)*. Second edition. Oxford: Oxford University Press.
- Balberg, Mira. 2014. "The Animalistic Gullet and the Godlike Soul: Reframing Sacrifice in Midrash Leviticus Rabbah." *AJS Review* 38,2: 221–247.
- Berger, David. 2009. "Polemic, Exegesis, Philosophy, and Science: On the Tenacity of Ashkenazic Modes of Thought." In *Jahrbuch des Simon-Dubnow-Instituts (Simon Dubnow Institute Yearbook) VIII*. Edited by Dan Diner and Gad Freudenthal. Göttingen: Vandenhoeck & Ruprecht. Pages 152–166.
- Biale, David. 1974. "Philosophy and Exegesis in the Writings of Abraham Ibn Ezra." *Comitatus: A Journal of Medieval and Renaissance Studies* 5: 43–62.
- Boyarín, Daniel. 1993. *Carnal Israel: Reading Sex in Talmudic Culture*. Berkeley: University of California Press.
- Brodsky, David. 2006. *A Bride Without a Blessing: A Study in the Redaction and Content of Massekhet Kallah and Its Gemara*. Tübingen: Mohr Siebeck.
- Campese, Silvia, Paola Manuli, and Giulia Sissa. 1983. *Madre Materia: Sociologia e Biologia Della Donna Greca*. Turin: Boringhieri.
- Cantarella, Eva. 1986. *Pandora's Daughters: The Role and Status of Women in Greek and Roman Antiquity*. Translated by Maureen Fant. Baltimore: Johns Hopkins University Press.

See von Grunebaum, 1976, 4–5; von Grunebaum and Aḥmad, 1970, 38–39, who note a similar irony with regard to the interpretation of Muslim texts in light of Greco-Roman science.

⁹⁹ Peskowitz 1997, 13.

¹⁰⁰ Fonrobert 2002, 133; Kapparis 2015, 52.

- Cohen, Adiel. 2003. "The Law of Menstrual Sensation: A Re-examination." *Netuim* 10: 41–47. (Hebrew)
- Connell, Sophia M. 2016. *Aristotle on Female Animals: A Study of the Generation of Animals*. Cambridge: Cambridge University Press.
- Dean-Jones, Lesley. 1996. *Women's Bodies in Classical Greek Science*. Oxford: Clarendon Press.
- Dean-Jones, Lesley. 2012. "Clinical Gynecology and Aristotle's Biology: The Composition of HA X." *Apeiron* 45: 180–199.
- Demand, Nancy. 2004. *Birth, Death, and Motherhood in Classical Greece*. Baltimore: The Johns Hopkins University Press.
- Diner, Dan, and Gad Freudenthal, eds. 2009. *Jahrbuch des Simon-Dubnow-Instituts (Simon Dubnow Institute Yearbook) VIII. Thematic Issue: Science and Philosophy in Early Modern Ashkenazic Culture – Rejection, Toleration, and Appropriation*. Göttingen: Vandenhoeck & Ruprecht.
- Dinnerstein, Dorothy. 1976. *The Mermaid and the Minotaur: Sexual Arrangements and Human Malaise*. New York: Harper & Row.
- Elman, Yaakov. 2007. "Middle Persian Culture and Babylonian Sages: Accommodation and Resistance in the Shaping of Rabbinic Legal Tradition." In *The Cambridge Companion to the Talmud and Rabbinic Literature*. Edited by Charlotte Fonrobert and Martin Jaffee. Cambridge: Cambridge University Press. Pages 165–197.
- Fonrobert, Charlotte Elisheva. 2002. *Menstrual Purity: Rabbinic and Christian Reconstructions of Biblical Gender*. Stanford: Stanford University Press.
- Friedman, Shamma. 1993. "Historical Aggadah in the Talmud." In *Saul Lieberman Memorial Volume*. Edited by Shamma Friedman. Jerusalem: Jewish Theological Seminary. Pages 119–163. (Hebrew)
- Frymer-Kensky, Tikva S. 1992. *In the Wake of the Goddesses: Women, Culture, and the Biblical Transformation of Pagan Myth*. New York: Free Press.
- Gignoux, Phillip, and Ahmad Tafazzoli. 1993. *Anthologie de Zādspram*. Paris: Association pour l'avancement des études iraniennes.
- Grene, David, ed. 1969. *Aeschylus I: Oresteia: Agamemnon, The Libation Bearers, The Eumenides*. Translated by Richmond Lattimore 2nd edition. Chicago/London: University of Chicago Press.
- Hanson, Ann Ellis. 1990. "The Medical Writers' Woman." In *Before Sexuality: The Construction of Erotic Experience in the Ancient Greek World*. Edited by David M. Halperin, John J. Winkler, and Froma I. Zeitlin. Princeton, NJ: Princeton University Press. Pages 309–338.
- Higger, Michael. 1942. *Ozar Ha-Baraitot in Ten Volumes*. Vol. 5. New York.
- Higger, Michael. 1943. *Ozar Ha-Baraitot*. Vol. 6. New York.
- Hoffman Libson, Ayelet. 2018. *Law and Self-Knowledge in the Talmud*. New York: Cambridge University Press.
- Jacobowitz, Tamar. 2010. "Leviticus Rabbah and the Spiritualization of the Laws of Impurity." Ph.D. diss., University of Pennsylvania.
- Kapparis, Konstantinos. 2015. "Aristophanes, Hippocrates and Sex-Crazed Women." *Ageless Arts: The Journal of the Southern Association for the History of Medicine and Science* 1: 48–57.
- Kessler, Gwynn. 2009. *Conceiving Israel: The Fetus in Rabbinic Narratives*. Philadelphia: University of Pennsylvania Press.

- King, Helen. 1998. *Hippocrates' Woman: Reading the Female Body in Ancient Greece*. London: Routledge.
- Kiperwasser, Reuven. 2009. "'Three Partners in a Person' The Genesis and Development of Embryological Theory in Biblical and Rabbinic Judaism." *Lectio Difficilior* 10. Cited 14 November 2021. Online: http://www.lectio.unibe.ch/09_2/kiperwasser.html.
- Kiperwasser, Reuven, and Dan Shapira. 2008. "Irano-Talmudica I: The Three-Legged Ass and Ridya in B. Taanith – Some Observations about Mythic Hydrology in the Babylonian Talmud and in Ancient Iran." *AJS Review* 32: 101–116.
- Kottek, Samuel. 1981. "Embryology in Talmudic and Midrashic Literature." *Journal of the History of Biology* 14: 299–315.
- de Lacy, Phillip, ed. 1992. *Galen: On Semen*. Berlin: Akademie Verlag.
- Laqueur, Thomas. 1990. *Making Sex: Body and Gender from the Greeks to Freud*. Cambridge, MA: Harvard University Press.
- Laqueur, Thomas. 2004. *Solitary Sex: A Cultural History of Masturbation*. New York: Zone Books.
- Lasker, Daniel. 1996. "Jewish Philosophical Polemics in Ashkenaz." In *Contra Iudaeos: Ancient and Medieval Polemics Between Jews and Christians*. Edited by Ora Limor and Guy Stroumsa. Tübingen: Mohr Siebeck. Pages 195–213.
- Levine, Baruch A. 1989. *The JPS Torah Commentary: Leviticus*. Philadelphia: The Jewish Publication Society.
- Levinson, Joshua. 2000. "Cultural Androgyny in Rabbinic Literature." In *From Athens to Jerusalem: Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel Kottek et al. Rotterdam: Erasmus. Pages 119–140.
- Lloyd, Geoffrey E. R. 1983. *Science, Folklore and Ideology: Studies in the Life Sciences in Ancient Greece*. Cambridge: Cambridge University Press.
- Mackenzie, D. N. 1986. *A Concise Pahlavi Dictionary*. London: Oxford University Press.
- Margulies, Mordecai. 1993. *Midrash Vayyikra Rabbah*. 3d edition. New York/Jerusalem: Jewish Theological Seminary. (Hebrew)
- May, Margaret Tallmadge, trans. 1968. *Galen: On the Usefulness of the Parts of the Body*. Ithaca, NY: Cornell Publications on the History of Science.
- Meacham, Tirzah. 1995. "Dam Himud – Blood of Desire." *Korot* 11: 82–89.
- Meacham, Tirzah. 2013. "Women Are Not Susceptible to Arousal." In *To Be a Jewish Woman*. Edited by Tova Cohen. Jerusalem: Kolech. Pages 153–168.
- Morsink, Johannes. 1979. "Was Aristotle's Biology Sexist?" *Journal of the History of Biology* 12,1: 83–112.
- Neis, Rachel. 2013. *The Sense of Sight in Rabbinic Culture: Jewish Ways of Seeing in Late Antiquity*. Cambridge: Cambridge University Press.
- Peck, A. L., trans. 1942. *Aristotle: Generation of Animals*. Cambridge, MA: Harvard University Press.
- Peskowitz, Miriam B. 1997. *Spinning Fantasies: Rabbis, Gender, and History*. Berkeley: University of California Press.
- Pfister, Andrea, and David Bellamy. 1992. *World Medicine: Plants, Patients and People*. Oxford: Blackwell.
- Pomeroy, Sarah. 1995. *Goddesses, Whores, Wives, and Slaves: Women in Classical Antiquity*. New York: Schocken.
- Robson, James. 2013. *Sex and Sexuality in Classical Athens*. Edinburgh: Edinburgh University Press.

- Rouselle, Aline. 1988. *Porneia: On Desire and the Body in Antiquity*. Translated by Felicia Pheasant. Oxford: Blackwell.
- Satlow, Michael. 1994. "'Wasted Seed,' The History of a Rabbinic Idea." *Hebrew Union College Annual* 65: 137–175.
- Satlow, Michael L. 1995. *Tasting the Dish: Rabbinic Rhetorics of Sexuality*. Atlanta: Scholars Press.
- Secunda, Shai. 2020. *The Talmud's Red Fence: Menstrual Impurity and Difference in Babylonian Judaism and Its Sasanian Context*. Oxford: Oxford University Press.
- Secunda, Shai. 2013. *The Iranian Talmud: Reading the Bavli in Its Sasanian Context*. Philadelphia: University of Pennsylvania Press.
- Shaked, Shaul. 1979. *The Wisdom of the Sasanian Sages: Dēnkard VI*. Boulder, CO: Westview Press.
- Soardi, Marzia. 2018. "A Cold Place, a Hot Place: Female Matrix in the Aristotelian Theory of Generation." In *Cultural Constructions of the Uterus in Pre-Modern Societies, Past and Present*. Edited by M. Erica Couto-Ferreira and Lorenzo Verderame. Newcastle, UK: Cambridge Scholars. Pages 101–112.
- Sohn, Peter. 1996. *Die Medizin des Zādsparam: Anatomie, Physiologie und Psychologie in den Wizīdagihā ī Zādsparam, einer zoroastrisch-mittelpersische Anthologie aus dem frühislamischen Iran des neunten Jahrhunderts*. Wiesbaden: Harrassowitz.
- Soloveitchik, Haym. 2009. "The Halakhic Isolation of the Ashkenazic Community." In *Jahrbuch des Simon-Dubnow-Instituts (Simon Dubnow Institute Yearbook) VIII*. Edited by Dan Diner and Gad Freudenthal. Göttingen: Vandenhoeck & Ruprecht. Pages 41–47.
- Squire, Michael, ed. 2016. *Sight and the Ancient Senses: The Senses in Antiquity*. London: Routledge.
- Stafford, Emma. 2011. "Clutching the Chickpea: Private Pleasures of the Bad Boyfriend." In *Sociable Man: Essays on Ancient Greek Social Behaviour in Honour of Nick Fisher*. Edited by Stephen D. Lambert. Swansea: Classical Press of Wales. Pages 338–342.
- Strauch Schick, Shana. 2017. "Depictions of Childbirth in Rabbinic Literature; The Innovation of a Geniza Midrashic Text." In *Motherhood in the Jewish Cultural Imagination*. Edited by Marjorie Lehman, Jane Kanarek, and Simon Bronner. New York: Littman Library of Jewish Civilization. Pages 285–306.
- Strauch Schick, Shana. 2019. "From Dungeon to Haven: Competing Theories of Gestation in Leviticus Rabbah and the Bavli." *AJS Review* 43,1: 143–168.
- Temkin, Owsei, trans. 1991. *Soranus: Gynecology*. Baltimore: Johns Hopkins University Press.
- Van der Horst, Pieter Willem. 1994. "Sarah's Seminal Emission: Hebrews 11:11 in the Light of Ancient Embryology." *Hellenism-Judaism-Christianity: Essays on Their Interaction*. Kampen: Kok Pharos.
- Visotzky, Burton L. 2003. *Golden Bells and Pomegranates: Studies in Midrash Leviticus Rabbah*. Tübingen: Mohr Siebeck.
- von Grunebaum, Gustave E. 1976. *Islam and Medieval Hellenism: Social and Cultural Perspectives*. London: Variorum Reprints.
- von Grunebaum, Gustave E., and Azīz Aḥmad. 1970. *Muslim Self-Statement in India and Pakistan 1857–1968*. Wiesbaden: Harrassowitz.
- Vrat Sharma, Priya. 2001. *Susruta-Samhita: With English Translation of Text and Dalhana's Commentaiy Alongwith (Sic) Critical Notes*. Vol. II. 3 vols. Haridas Ayurveda Series Varanasi: Chaukhambha Visvabharati.

- Weiss, Abraham. 1962. *Al Ha-Yetsirah Ha-Sifrutit Shel Ha-Amoraím*. New York: Horev and Yeshiva University.
- Wentworth Thompson, D'arcy, ed. 2015. *History of Animals*. London: Aeterna Press.
- Zeitlin, Froma. 1978. "The Dynamics of Misogyny: Myth and Mythmaking in the Oresteia." *Arethusa* 11: 149–184.

Pregnancy of Minor Girls, Superfetation, and Pregnancy during Lactation in Rabbinic Literature

TIRZAH MEACHAM

ABSTRACT: This contribution deals with the well-known early rabbinic text (*baraita*): three women use a contraceptive absorbent (*mokh*). The goal of this contribution is to clarify whether all three categories of women in the *baraita* reflect reality or are merely hypothetical discussions. This *baraita* is one of the most significant obstetrical texts in rabbinic literature and relates to the use of contraception. This tannaitic text and its subsequent quotations in the Bavli have been the basis for much legal/halakhic discussion concerning the permissibility of contraception. Classical rabbinic sources (Mishnah, Tosefta, Yerushalmi and Bavli), sources in history of medicine, and modern medical articles will be used to demonstrate that the basis of the *baraita*, the possibility of conception for a minor (according to rabbinic definitions), a pregnant woman, and a nursing woman are possible. This demonstrates the utility of classical rabbinic texts as a source for history of medicine. The focus of this contribution is *realia*, but there will be comments concerning gender issues in these texts.

I wish to preface this contribution with some comments on the use of ancient texts in the study of history of medicine. There is a general reluctance to rely on such texts for identification of disease for a number of reasons:

- 1) the difficulty in accurate understanding of the languages and terminology of the source texts in which nuances, euphemisms, rare usages, technical language, geography and time may create barriers to proper comprehension;¹
- 2) the danger of anachronistic identification since viruses and bacteria mutate;
- 3) the change of scientific and medical paradigms and cultural concepts of the body, health, and illness;²
- 4) the impact of earlier (mis)translations of the source texts on such identifications.³

¹ See Adams 1982, 2–3 where the problems with metaphors which are not current or the tone is unclear or the meaning has faded and *ibid.* 214–216 where the genre of literature, the attitude of the speaker/writer, and audience are addressed.

² I am grateful to Lennart Lehmhaus and the anonymous peer reviewer for many helpful comments on this contribution.

³ An example of this would be discussions of whether *tzara'at* (Leviticus chapters 13 and 14), which is normally translated as leprosy, actually refers to the same disease which was named after

These all seem to be valid concerns for diagnosis of disease. Female anatomy and physiology, however, have remained stable for the last few millennia.⁴ Gynecological and obstetrical medical *realia* and the physiological processes involved in puberty, pregnancy, birth, lactation, and menopause have not changed since antiquity. It is therefore possible to identify many of the conditions and physiological processes mentioned in ancient gynecological and obstetrical texts in terms of modern medicine with some degree of confidence, taking into account the potential difficulties in clarifying euphemistic language and rare terminology and possible transmission difficulties. Modern medical textbooks tend to relate to the advancements in identification, diagnosis, and treatment of gynecological and obstetrical conditions. As a result, older medical textbooks and references to less technologically advanced practices in certain areas of the world may actually prove more helpful in identifying conditions which today are standardly treated or prevented by usual Western medical practices.

This contribution intends to demonstrate the utility of classical rabbinic texts as a source for history of medicine despite the difficulties listed above. Although these texts were composed, redacted, transmitted, and commented upon by males, physiological and anatomical phenomena relating to female bodies have remained stable, enabling us to utilize early rabbinic descriptions for the study of history of medicine. Some rabbinic sages had medical training but most did not. This contribution makes no claim concerning medical expertise on the part of the rabbinic sages which is dependent on their training and in accordance with the science of that era. Many of the medical issues discussed by the early rabbinic sages are not for the sake of medical treatment or diagnosis *per se* but are part of legal discussions on topics such as Sabbath observance, ritual impurity, legal definitions of puberty, marriageability, sexual acts, conception, fetal development, labor, birth, lactation, menopause, etc. Some statements, particularly those connected with female anatomy and birth, likely originated with women because of issues of modesty during birth and while examining genitalia for signs of sexual development.⁵ The names of such women generally have been lost in the transmission of their

Gerhard-Henrik Armauer Hansen who attributed it to *Mycobacterium leprae* in 1873 or another scale disease.

⁴ There are some changes due to environment such as the greater presence of hormones, particularly estrogen, in groundwater and food and use of growth hormones in meat production. This may result in earlier puberty but the process of puberty remains the same. Similarly, more abundant food supplies may have an impact on the timing of the onset of puberty, the quantity of menstrual blood flow per cycle, and the number of menstrual cycles in a woman's lifetime.

⁵ There were, however, limitations on what women's testimony was valid for legal decisions without male input. See, for example, Meacham 2000. I have been unable to locate any references in Talmudic literature to male doctors or male midwives being present at or assisting births but see bQiddushin 24b which may be hypothetical. See, for example King 1986. See also King 2001, 15 and 39. Also: King 2007. It is likely that male Jewish doctors did not attend births for reasons of modesty and non-Jewish midwives were treated with great suspicion though they were allowed to aid Jewish women during birth if other Jewish women were overseeing them (bAvodah Zarah 26a).

ideas or eliminated when incorporated into male halakhic discussions, making such statements sources for history of medicine rather than for women's history.⁶ There are also rabbinic statements which shed light on their current medical practices and medical theory.

Some of the texts to be examined in this contribution are tannaitic, a time period which ended around the middle of the third century Common Era. The three main types of rabbinic texts produced in this era were: the Mishnah which is considered the earliest and is divided into six Orders with several tractates in each order; Tosefta which is structured similarly to the Mishnah and includes tannaitic material parallel to the Mishnah as well as material which is not part of the Mishnah; and Midrashei Halakhah which are based on the four books of the Pentateuch excluding Genesis. There is an attempt to derive law from various words and phrases in those biblical books by employing various hermeneutic rules. It is generally considered to have known the Mishnah or a proto-Mishnah and is seen as an attempt to give biblical authority to existing law. Texts from Tosefta and Midrashei Halakhah as well as other statements of tannaitic material which are not in the Mishnah are referred to as *baraita* (singular, plural: *baraitot*). All of these were composed in the Land of Israel.⁷ Other texts such as the Jerusalem Talmud and Babylonian Talmud and some early homiletic texts are amoraic.⁸ It should be noted, however, that these rabbinic texts are not a code of law like Hammurabi's Code or the Code of Justinian. They contain discussions of legal statements, arguments, homiletic material, biblical commentary, folk medicine, professional medicine, as well as theology, and beliefs about the nature of males and females, including some which may be offensive to our current sensibilities. We might relate to them as the "underbelly" of legal codes. It is possible, and even likely, that similar discussions and arguments preceded the creation of legal codes in other societies but were not recorded.

This brings up another concern: do the rabbinic dicta reflect hypothetical discussions which attempt to establish limits of a legal status or legal proceeding? Or

⁶ It should be noted that according to Tosefta (= t) Niddah 6:8 and the parallel in Bavli (= b) Niddah 48b referring to girls being examined by women for the sprouting of pubic hair, Rabbi Eliezer relied on his spouse, Rabbi Yishmael relied on his mother, and both Rabbi Yehudah and Rabbi Shimon allowed women to examine girls. Shemuel quoted his nurse for some statements on medical issues. In the Berlin edition of *Halakhot Gedolot*, a geonic work from ninth century Babylonia, R. Yehoshua is mentioned instead of R. Yishmael. His mother was also well known for her righteousness. See the reference and commentary to this source by Lieberman 1939, 274.

⁷ Tannaitic texts were redacted in the early rabbinic era. These include: Mishnah (= m), considered to be redacted around 220 CE; Tosefta (= t), considered to be redacted a generation or so later; and Midreshei Halakhah.

⁸ The Mishnah is the starting point for the Talmudic discussions in the Jerusalem Talmud, Yerushalmi (= y), also composed in the Land of Israel and redacted ~350–400 CE, and the Babylonian Talmud, Bavli (= b) composed in Babylon in the amoraic period and redacted ~500–600 CE. These compositions incorporate much tannaitic material as well as later homiletic material into their discourse.

do they reveal an actual occurrence or established practice? Rabbinic texts seem to include both hypothetical discussions as well as actual practice. This creates a problem when hypothetical or theoretical discussions are understood as actual situations. This results in an inordinate amount of attention in their reception history.⁹ Conversely, there is sometimes a tendency to claim that an actual situation which is abhorrent to our sensibilities or very rare is merely a hypothetical discussion. The difficulty is deciding in each situation whether the discussion is theoretical or reflects real cases. Finally, to what extent may we rely on such medical texts to shed light on women's history?¹⁰ We shall relate to this issue and others mentioned above as they arise in this contribution.

The goal of this contribution is to clarify whether all three categories of women in the well-known *baraita*¹¹ quoted below reflect reality or are merely hypothetical discussions. This tannaitic text is one of the most significant gynecological/obstetrical texts in rabbinic literature which relates to the use of contraception.¹² This tannaitic text and its subsequent quotations in the Bavli have been the basis for much legal/halakhic discussion concerning the permissibility of contraception.

1. The *Baraita*: “Three Women Use a Contraceptive Absorbent”

The absorbent is a barrier method of contraception. There is a significant gender difference connected to barrier methods of contraception in Jewish law. Women, at least the women in the three categories mentioned in the *baraitot* below were allowed or even obligated to use a contraceptive absorbent (*mokh*) due to the potential dangers to the woman, the nursing infant, or the fetus. This is chiefly because according to rabbinic law women were not obligated to procreate. Males were obligated to procreate and wasting seed through use of a barrier was prohibited to them.¹³ The rabbinic sages connected their strong prohibition on wasting male seed to Genesis 38. When Onan refused to procreate with his deceased brother's widow by spilling his seed on the earth when lying with Tamar (*coitus interruptus*), God caused his premature demise. The sages conflated Onan's sin, the refusal to sire a child for his brother's line, with his method of refusal, wasting seed, there-

⁹ I am grateful to Lennart Lehmhaus for pointing out this issue.

¹⁰ See King 1995.

¹¹ *Baraita* refers to tannaitic material not included in the Mishnah. Its source may be Tosefta or Midreshei Halakhah or other lost collections of statements of tannaim. Some *baraitot* may have a later provenance or may simply be an example of tannaitic material not included in the collections mentioned. Our *baraita* is found in tNiddah 2:6 and has parallels in bYevamot 12b and 100b, bKetubbot 39a, bNedarim 35b and bNiddah 45a.

¹² See Feldman 1968, 169–234 and Ir-Shai 2012, 59–77 for their important studies on the place of the *baraita* in halakhic discussions.

¹³ See below note 18.

by making seed wastage in general a serious and potentially fatal transgression. As a result, Jewish legal codes prohibit men from using condoms because the semen does not reach the vagina and uterus so it is wasted.¹⁴ Some legal decisors allow the use of barrier methods by women only after the man has ejaculated. This is an obvious example of the manner in which rabbinic sages differentiated between males and females and was definitely a social construction attempting to control the sexuality of both men and women. The focus of this contribution, however, is not gender theory, which may be the (changing) attitude to medical *realia*, but rather an attempt to clarify the medical concern over reality of a particular tannaitic statement which otherwise seems unrealistic. I will occasionally address issues of gender but consider the clarification of the source text cited as primary.¹⁵ Others like Butler, Fonrobert, Tal Ilan, Cynthia Baker, and Miriam Peskowitz are more focused on gender theory.¹⁶

This *baraita* from tNiddah 2:6 includes a nursing woman, who may indeed become pregnant during lactation, a pregnant woman, who is considered to be in danger of conceiving again (superfetation), and a minor girl, who has not exhibited the sprouting of pubic hair, but is married. The concern for the nursing woman is that the pregnancy may impact the quantity or quality of her milk thereby endangering her nursing infant. The concern for the pregnant woman is that an additional conceptus will endanger the established fetus. The concern for the minor girl is that pregnancy and birth constitute a risk to her life.

ת' נדה ב' י'¹⁷

שלוש נשים משמשות במוך: קטנה, מעוברת, ומניקה. קטנה – שמא תתעבר ותמות. איזו היא קטנה? מבת אחת עשרה שנה ויום אחד ועד בת שתי עשרה שנה ויום אחד. פחות מכן ויתר על כן – משמש כדרכו ואינו חושש. מעוברת – שמא תעשה עוברת סנדל'. מניקה – שמא תהרוג את בנה שהיה ר' מאיר אומרים (!): כל עשרים וארבעה חדש דש מבפנים וזורה מבחוץ. וחכמים אומרים: משמש כדרכו והמקום משמר עליו שנ' שומר פתאים י"י:

tNiddah 2:6

Three women use¹⁸ a *mokh* [contraceptive absorbent]: a minor, a pregnant woman and a nursing woman. A minor, lest she become pregnant and die. Who is a minor? From eleven

¹⁴ See Youssef 1993; Green 1971; and Himes 1963. For a discussion of barrier methods among Jewish legal decisors see note 18 below. See also bNiddah 13b for tannaitic and amoraic statements on the prohibition of semen wastage.

¹⁵ This is to some extent the method of Hauptman 1998, and other publications where she focuses on the multiple voices in the rabbinic texts. Wegner 1988 also focuses on clarifying legal status with feminist insights.

¹⁶ See, for example, Butler 2004, especially chapter 2. Also: Butler 2006; Fonrobert 2000; and several of Tal Ilan's books in the series of *Feminist Commentary to the Babylonian Talmud*; Ilan 1997; Baker 2002; and Peskowitz 1997.

¹⁷ Quotations of sources will be from the Bar Ilan Responsa Project database version 24+ unless otherwise stated. Significant variant readings in manuscripts will be addressed. The translations into English are mine unless otherwise stated but several minor corrections have been made without note.

¹⁸ See Feldman 1968, 169–234, especially 194–199. For additional discussions of legal deci-

years and a day until twelve years and a day. Less than this or more than this [age], he has intercourse in his usual manner and is not apprehensive [of negative repercussions].¹⁹ A pregnant woman, lest she make her fetus into a *sandal* [compressed fetus by conceiving a second time]. A nursing woman, lest she kill her child for Rabbi Meir used to say (plural *sic*): All the twenty-four months [for which a mother is obligated to nurse his children (tNiddah 2:4)], he threshes inside and scatters outside [*coitus interruptus*]. But the sages say: He has intercourse in his usual manner and the Omnipresent guards over him for it is said [Psalm 116:6]: *The Lord guards the simple*.²⁰

The language throughout Psalm 116 could also reflect the dangers of pregnancy and childbirth. “The bonds of death חבלי מות encompassed me,” “You have delivered me from death,” “You have undone the chords that bound me. I will sacrifice a thanksgiving offering to You,” “I will pay my vows to the Lord,” may be hints referring to birth contractions חבלי לידה, delivery from the life-threatening situation of birth, the opening of the uterus at birth by God who holds the key to birth, and the birth sacrifices prescribed in Leviticus 12.

Several factors are part of the discussions among commentators and *posqim* (legal decisors). These include: 1) whether the word *meshamshot* (use) implies permission or obligation to use a *mokh* (contraceptive barrier); 2) whether the *mokh* is used during coitus or only afterwards; 3) what the level of danger of being pregnant is to the woman, her fetus, or her nursing infant; 4) whether this constitutes destruction of male seed; and 5) whether there is a disagreement in principle between Rabbi Meir and the sages. Among the commentators there are two schools of interpretation of the opening phrase of the *baraita* “Three women use” which is generally interpreted in the following ways. One school, Tosafot, interprets the feminine participle משמשת as ‘must use,’ meaning that other women may also use the contraceptive *mokh*. The other school, Rashi, interprets the participle as ‘may use,’ meaning that other women are forbidden to use the contraceptive *mokh*.

After the girl has brought forth two pubic hairs and reached the age of twelve years and a day, she ceases to be a minor (*qetannah*) and enters the legal category of maiden (*na'arah*). It was assumed incorrectly that pregnancy and birth was no more dangerous for a maiden than an older woman.²¹ We now consider early teen pregnancies more dangerous both to the mother and to the fetus. The chief risks

sors, *posqim*, see Qatan 2006; Finkelstein 2009. These articles have all been republished in *Reality and Medicine in Seder Nahsim* edited by Mordekhai Halperin, 213–220; 221–231; 232–248; and 249–261 respectively. See also Ir-Shai’s (2012) analysis of the textual history of the *baraita* and its use in halakic literature in her *Feminist Perspectives on Orthodox Responsa Literature*, 59–77.

¹⁹ Novick 2010, 112, note 10 translates this term as “without scruple.”

²⁰ See also bNiddah 31b and bSanhedrin 113a.

²¹ Concerning health risks of young mothers and babies see, for example, Kirbas et al. 2016; World Health Organization 2011; and Fraser et al. 1995. S. C. Bisel and J. F. Bisel note the skeletal remains of a 16-year-old girl whose pelvis had not finished growing and was too small to allow the birth of her fetus. See Bisel and Bisel 2002, especially 465–466.

to the fetus are low and very low birth weights, and premature and very premature infants, and small infants for gestational age. A pregnant young teenage girl is considered in a high-risk category due to induced hypertension and pre-eclampsia. According to this text, a man could therefore have intercourse in the usual manner without the use of a *mokh* with a *na'arah*. There is no explanation concerning the materials and shape of the *mokh*.²² This *mokh* was probably made of some kind of cloth and acted as a barrier method of birth control. It is also possible that the material may have been soaked in a substance which could have been considered a spermicide.²³

The language in tNiddah seems to attribute responsibility to both groups of adult women for negative outcomes: "a pregnant woman lest she make her fetus a *sandal*,"²⁴ and the nursing woman lest she kill her infant."²⁵ Pregnancy while nursing may cause changes in the milk and the woman's breast sensitivities may discourage nursing. Despite the language, the text is not suggesting that the woman is committing infanticide with her subsequent pregnancy.

Both historians of medicine and most of the traditional talmudic commentators understand that her existing fetus will be overcome by an additional pregnancy. This seems to be counterintuitive as the younger embryo/fetus would likely be more vulnerable than the more established pregnancy.²⁶ We find in yNiddah 3:4, 50d that they held that a *sandal* was a phenomenon of a twin pregnancy in which one twin killed the other and then died.²⁷ This discussion is based on mNiddah 3:4 which deals with miscarried products of conception. First, we need to look at the previous *mishnaiot* in chapter 3. The first Mishnah and the start of the second deal with discharges capable of causing menstrual impurity but not birth impurity. They are products of conception which are small, aborted early, and bear no

²² In mShabbat 6:5 there is reference to a *mokh* which a woman prepares for her menstrual period. The discussion in bShabbat 65a suggests that this *mokh* could be external and fastened around her thighs like a menstrual pad or possibly internal with some kind of handle for its removal, like the string on a tampon. It is clear that the menstrual *mokh* is made of some kind of cloth.

²³ I am unaware of any textual evidence for this but like much medical information on contraception, it may have been secret women's knowledge. See also Youssef 1993, for the materials used in ancient Egypt as contraceptive barriers.

²⁴ A *sandal* may result from a singleton pregnancy in which the fetus dies and the amniotic sac leaks. The normal pressure of the uterus could flatten the fetus. See Meacham 1992, especially 52; and Dal Bo 2021.

²⁵ The issue of providing an alternate food supply for an infant was addressed by Jacqueline H. Wolf (Cf. Wolf 2001, 1). The Chicago Department of Health created a poster in 1910 headlined "Don't Kill Your Baby," when it found that fifteen bottle-fed babies were dying for each breast-fed baby.

²⁶ According to Samuel Kottek and Gerhard Baader (2000 especially 90 and notes 53–57) that according to the Hippocratic treatise *Regimen* 1.31 the first conceived fetus will destroy the second but according to Aristotle, *Generation of Animals* 6.5, 773b 7–19 if the first conceived fetus is not well established, the second conception will destroy it.

²⁷ See Meacham 1992, 145–156.

human resemblance.²⁸ We shall now turn to the second half of the second Mishnah and the following *mishnaïot*.

משנה מסכת נדה פרק ג' ב' ד'
...המפלת מין בהמה חיה ועוף בין טמאין בין טהורים אם זכר תשב לזכר ואם נקבה תשב לנקבה ואם אין ידוע תשב לזכר ולנקבה דברי רבי מאיר וחכמים אומרים כל שאין בו מצורת אדם אינו ולד:
משנה מסכת נדה פרק ג' ג'
המפלת שפיר מלא מים מלא דם מלא גנינים אינה חוששת לולד ואם היה מרוקם תשב לזכר ולנקבה:
משנה מסכת נדה ג' ד'
המפלת סנדל או שליא תשב לזכר ולנקבה

mNiddah 3:2

... A woman who aborts a kind of domestic animal, wild animal, or bird – whether impure or pure – if it is male, she sits [the birth impurity] for a male but if it is female, she sits [the birth impurity] for a female – these are the words of Rabbi Meir. But the sages say: Whatever has no form of a human – it is not [considered a human] birth.

mNiddah 3:3

A woman who aborts an amniotic sac full of water, full of blood, full of bits of tissue/varied colors – she does not suspect a fetus [that is, there is no birth impurity]. But if it were fashioned – she sits [the birth impurity] for a male and female.

mNiddah 3:4

A woman who aborts a *sandal* [compressed fetus] or a placenta shall sit [the days of birth impurity] for a male and for a female ...

In order for a *sandal* to form, the fetus must have human form according to the sages in mNiddah 3:2 and after the fetus died in utero, it was retained for a long enough time that the amniotic fluid leaked out of the amnion and pressures within the uterus flattened the fetus. The human form required by the sages chiefly concerned facial features. Depending on the position of the fetus in relation to the placenta, the facial features may be obliterated or essentially fused with the placenta. We will now turn to the Yerushalmi's discussion of the creation of a *sandal*.

תלמוד ירושלמי (ונציה) מסכת נדה פרק ג דף נ טור ד ה"ד
המפלת סנדל או שליא כו' רבי בא בשם רב יהודה אין סנדל אלא שרצמו חי ואינו יוצא עם החי אלא עם המת.

yNiddah 3:4, 50d

"One who aborts a *sandal* or a placenta etc." (partial quotation from mNiddah 3:4) Rabbi Ba [said] in the name of Rav Yehudah: There is no *sandal* except that which a living [twin] pressed on it, and [the *sandal*] does not go out with the living [twin] but rather with the dead [twin].

The rest of the Talmudic discussion, *sugya*,²⁹ deals with what case a *sandal* could be considered a birth that required a sacrifice. The opening of the *sugya* limits

²⁸ I am grateful to Lennart Lehmhaus for alerting me to the following bibliography on tissue expelled from the uterus. See Neis, 2017, 2018a and 2018b, 2019a and 2019b.

²⁹ A *sugya* is a Talmudic section, most usually a unit of legal discussion on one topic. It may be long or short but has internal coherence of the topic at hand.

the creation of a *sandal* to a twin birth.³⁰ The non-*sandal* would normally be the reason for the obligation of a birth sacrifice. The *sugya* creates various hypothetical scenarios, in which the *sandal* on its own would necessitate a birth sacrifice:³¹ There is no specific requirement in mNiddah 3:4 that the *sandal* be born with a twin, only that the woman incurs birth impurity. According to mKeritot 1:3 a woman who aborts a *sandal* or a placenta must bring a birth sacrifice and it is consumed. This indicates that the *sandal* is considered a valid birth on its own. The hypothetical scenarios include:

- 1) the twin is born by cesarean section which would not require a birth sacrifice but the *sandal* is born vaginally which would require a birth sacrifice.
- 2) the twin was born within 80 days of the birth of a female but the *sandal* was born after the 80th day and so the birth sacrifice would be only for the *sandal*.
- 3) the twin was born before the woman converted to Judaism and requires no birth sacrifice but the *sandal* was born after her conversion and required a birth sacrifice.
- 4) even if both were born vaginally and both were born after the woman converted – a birth sacrifice was designated for the twin but before it could be brought the *sandal* was born and so the sacrifice actually came for the sake of the *sandal*.

The *sugya* concludes with a rabbinic vote, which requires that a *sandal* have the form of a human. This would mean that a fetus which had been compressed into a placenta or so badly compressed that human features were not recognizable would not be considered a fetus for the purpose of birth and birth sacrifice. Despite the fact that there is no reference to the three women who use a contraceptive absorbent, it seems as if this *sugya* has our *baraita* with its concern about superfetation and the negative results as its background. Moreover, it assumes that both the fetus and the *sandal* would die, not that just one of them would crush the other.

Theoretically a singleton pregnancy in which the fetus dies, undergoes maceration and compression due to leakage of amniotic fluid could create a *sandal* as mentioned above. It should be noted that in mNiddah 3:4 there is no mention of

³⁰ That apparently is also the position of Preuss 1978, 417–418. This is also the commonly accepted medical position. Due to IVF multiple pregnancies have become more common and loss of one of the fetuses has also become more common. Daw 1992, differentiates between *fetus vanescens* (the vanishing twin) which was recognized by ultrasound and later has disappeared but can be confirmed histologically; *fetus compressus* referring to a flattened, macerated fetus which has died in utero, usually with a twin but sometimes with multiple fetuses, and due to maceration and autolysis of the internal organs becomes flattened; and *fetus papyraceus* in which the flattened fetus becomes desiccated or mummified without signs of maceration. I do not relate to the vanishing twin in my discussion of *sandal* because the evidence would not have been available to the rabbinic sages. The *fetus compressus* and *fetus papyraceus* are both possible situations for the Talmudic *sandal*.

³¹ See Meacham 1989, 264–272 especially 268, note 387, where I discuss the theoretical aspects of the *sugya*.

an accompanying twin (“She who aborts a *sandal* or placenta – she shall sit for a male and a female”). According to tNiddah 4:8, a *sandal* is accompanied by a twin or other kinds of multiple births.³²

תוספתא מסכת נדה (צוקרמאנדל) פרק ד' ח'
ולמה אמרו סנדל והלא אין סנדל שאין עמה ולד? אלא שמא תפיל עמו זכר ותהא מקולקלת לנקבה או
שמא תפיל עמו שנים אחד לפני שקיעת החמה ואחד לאחר שקיעת החמה נמצאתה מונה תחלה לנדה
ראשון ותחלה לנדה אחרון:

tNiddah 4:8

But why did they say *sandal* for there is no *sandal* which does not have a twin with it? Rather perhaps she will abort with [the *sandal*] a male and be confused [in her count] if [the *sandal*] were a female. Or perhaps she aborts with it [the *sandal*] two fetuses, one before sunset and one after sunset, and she would be found counting the beginning of menstrual impurity [beginning on day 41 or 81] for the first and for the last.

The tradition in both yNiddah 3:4, 50d and bNiddah 25b is that a *sandal* occurs in a twin pregnancy. In reality, a *sandal* is more likely to be a product of a twin pregnancy in which one of the twins dies and the other continues to develop putting pressure on the dead fetus. The amniotic sac will ultimately begin to leak fluid leaving the delicate fetus subject to pressure and thereby become flattened. Depending on the orientation in the uterus, the dead twin may be compressed, obliterating its facial features as it becomes flat or becomes merged with its placenta. According to tNiddah 4:7, the name derives from some flat sea fish. Rabban Gamliel states that it resembles an ox tongue. This is a word play as βούγλασσος is the Greek name for sole, a flatfish.³³ The comparison might reflect a fetus that was compressed into its placenta so that no facial features are visible or that maceration had obliterated its features.³⁴ The *baraita* below may be equating “form of face” with “form of human” as a necessary feature of the *sandal*.

תוספתא מסכת נדה (צוקרמאנדל) ד' ז'
צורת פנים שאמרו אחד מכל צורת הפנים חוץ מאזניים וסנדל שאמרו דומה לסנדל דג שבים רבן שמעון בן
גמליאל אומר דומה ללשון של שור רבותינו אמרו עד שיהא בה צורת אדם

tNiddah 4:7

The form of the face which they said [is] one of all the form[s] of the face except ears. And *sandal* which they said resembles a *sandal*, a fish which is in the sea. Rabban Shimon ben Gamliel says: It resembles the tongue of an ox. Our rabbis said: [It does not generate birth impurity] until it has in it a form of a human.

³² The concern there is that perhaps the *sandal* may be of a different sex than the other twin and there would be confusion as to when the birth sacrifice should be offered or if it were part of a triplet birth in which one was before sunset while the birth of the other twin was after sunset resulting in confusion as to when birth impurity ends.

³³ See Preuss 1978, 417–418 and Meacham 1992, 52. See also Dal Bo 2021.

³⁴ See yNiddah 3:2, 50c and bNiddah 23b for a list of the facial features.

Returning to our *baraita* we find that the version of our *baraita* in the Bavli differs from Tosefta. In this later Babylonian tradition Rabbi Meir's reference to *coitus interruptus* is eliminated and the statement that below the age of eleven years and a day and above the age of twelve years and a day she has intercourse in the usual manner without contraception is attributed to him.

The other places this *baraita* appears are: bNiddah 45a (concerning a Roman woman who claimed to have married at six and given birth at seven, possibly precocious puberty or simply rabbinic denigration of pagan sexuality), bYevamot 12b (on the final clause of mYevamot 1:1 which states that the Mishnah cannot refer to his/her mother-in-law or mother if she had performed *me'un* repudiation of marriage which will be discussed below), bKetubbot 39a (concerning a *na'arah* who was raped and subsequently gave birth), bNedarim 35b (concerning the possibility of a minor giving birth), and an abbreviated form is found in *Otzar HaMidreshim* (Eisenstein, Rabbenu HaQadosh p. 509). I chose the version in bYevamot 100b because it does not have the abbreviations found in the other sources. The context of the *sugya* is the Mishnah about a woman who did not wait for three months after the death of her husband or his divorce from her before remarrying and becoming pregnant. The biological father is therefore in question because the sages held that a seven-month fetus was viable and hence the second husband could be the father. But the child could also be a full-term infant from the first husband. The Bavli seeks to find a case in which both husbands are living but that woman has not yet been divorced. This would have an impact on the status of the child which seems like a theoretical exercise. The only case that they came up with is the case of a minor girl married off by her guardian. The question is then asked whether a minor is capable of giving birth. Contraception for the minor is only necessary after the age of eleven years and a day until twelve years and a day, at which time she is no longer permitted to perform *me'un* – repudiation of a marriage of a minor arranged by a guardian. This again gives credence to the position that such a girl cannot conceive and give birth successfully.

We shall now examine the parallel to our *baraita* in bYevamot.

ב' יבמות ק ע"ב³⁵

והתני רב ביבי קמיה דרב נחמן:

שלוש נשים משמשות במוך: קטנה, מעוברת, ומניקה. קטנה – שמא תתעבר ותמות. מעוברת – שמא תעשה עוברה סנדל. מניקה – שמא תגמול את בנה וימות. ואיזו היא קטנה? מבת אחת עשרה שנה ויום אחד עד בת

³⁵ It should be noted that only one manuscript, Guenzburg 1017 from the Friedberg Jewish Manuscript Project gives the double form: “*perhaps/lest* she become pregnant and *perhaps/lest* she die.” The double doubt suggests that it might be possible for her to conceive and give birth and still survive. This, however, is not addressed. Rather the assumption is that it is impossible. The variants in all the parallels are generally scribal errors and do not have impact on the sense of the *baraita*. The *sugya* then suggests that the Mishnah is dealing with a case of *qiddushin* in error in which the condition for *qiddushin* was neither fulfilled and nor abandoned. As a result, no divorce is necessary. In such a case Rabbi Yishmael states: “Even if her son is riding on her shoulder, she may repudiate [the marriage in which the stipulation was not fulfilled] and go her way [with-

שתים עשרה שנה ויום אחד. פחות מיכן או יתר על כן – משמשת כדרכה והולכת דברי רבי מאיר. וחכמים אומרים: אחת זו ואחת זו משמשת כדרכה והולכת ומן השמים ירחמו שנאמר (תהלים קט"ז) שומר פתאים ה'

bYevamot 100b

But did not Rav Bibi teach [in a *baraita*] before Rav Nahman:

Three women use a *mokh* [contraceptive absorbent]: a minor, a pregnant woman and a nursing woman. A minor, lest she become pregnant and die. A pregnant woman, lest she make her fetus into a *sandal* (compressed fetus). A nursing woman, lest she wean her child and he die. Who is a minor? From eleven years and a day until twelve years and a day. Less than this or more than this [age], she has intercourse in her usual manner and goes [about her life], [these are] the words of Rabbi Meir. But the sages say: [Both] this one and that one have intercourse in her usual manner and from Heaven they [God] will have mercy for it is said [Psalm 116:6]: *The Lord guards the simple*.

It is unclear whether the changes in the *baraita* are the result of different traditions or whether censorship is a factor. There is a tradition of 'threshing within and scattering outside' (*coitus interruptus*) in bYevamot 34b during the twenty-four months of nursing brought in the name of Rabbi Eliezer.³⁶ The story of Onan and Tamar in Genesis 38 concerns Onan's refusal to fulfill the obligation of levirate marriage by practicing *coitus interruptus* instead of completion of intercourse with ejaculation into the vagina. It was, however, interpreted by the sages as the source for the prohibition against masturbation making it unlikely that an editor would want permission for *coitus interruptus* to be stated lest it be seen as permission for masturbation as well. Reference to *coitus interruptus* and seed destruction and Onan are found in midrashic sources, always in a negative light.³⁷ The reason for the name change between Rabbi Meir in Tosefta and Rabbi Eliezer in bYevamot 34b is unknown. It should be noted that in Tosefta Rabbi Meir's statement is partially in the plural: *מאיר אומרים שהיה ר'* which may indicate that the statement was originally in both his and Rabbi Eliezer's name though they are of different generations.³⁸

out divorce]." It should be noted that this is not the standard *me'un* because in order to give birth she must have achieved puberty and the signs of puberty and reaching the age of twelve years and a day disqualify her from *me'un*.

³⁶ Rabbi Eliezer refers to practicing *coitus interruptus* during the twenty-four months of lactation in bYevamot 34b but without the rest of the *baraita*. Rabbi Eliezer is the reading in Munich 95, Vatican 110, and the genizah fragment Oxford.Heb.d. 45/34–37. It may also be the reading in Oxford Heb.c 27/20–22 where the letter *yod* seems to have combined with the start of the letter *ayin*. The reading in Cambridge T-S F1(2).122 is Rabbi Elazar.

³⁷ See for example Bereishit Rabbah (Theodore-Albeck) *VaYeshev paresha* 85:9, Midrash Aggadah (Buber) *VaYeshev* 38:9, Pesiqta Zutarta *VaYeshev* 38:9, Yalqut Shimoni *VaYeshev remez* 145, and Yalqut Shimoni *Divrei HaYamim remez* 1074.

³⁸ See above note 36. Since the clause opener *שהיה* requires a singular verb, it is likely that the plural form is simply an error, perhaps under the influence of the continuation *וחכמים אומרים*.

2. The Nursing Woman and the Pregnant Woman

Our concern is the medical *realia* of the *baraita*. Of the three women mentioned, the lactating woman is the one most likely to conceive unless contraception is used. Lactation on demand with no supplementary feeding of the infant may indeed suppress ovulation for the first six months after birth, especially if she has no episode of menstruation.³⁹ Any disruption of lactation on demand due, for example, to illness of the infant or the mother, or any supplementary feeding may have impact on hormonal levels allowing ovulation and pregnancy to occur. Ovulation occurs prior to menstruation in at least 50 % of nursing women, meaning that a woman could become pregnant before resumption of her menses. She may, however, be able to discern ovulation by noting a change in vaginal discharge.

Prolactin levels are raised by suckling and result in the suppression of luteinizing hormone (LH) release. This inhibits ovarian activity, preventing follicular ripening, ovulation, and menstruation.⁴⁰ There is some evidence that more frequent suckling by the infant rather than prolonged suckling extends lactational amenorrhea [absence of menstruation].⁴¹ Lactational amenorrhea is the most common form of natural child spacing but it is notoriously unreliable as a contraceptive method. Our *baraita* is certainly aware of the likelihood of becoming pregnant during nursing but does not relate to whether her periods have resumed.

There are several sources, which have some connection to our *baraita*. Included among them is the prohibition of a pregnant or nursing woman who was widowed or divorced to marry someone else. Both issues of inheritance of the offspring as well as the welfare of the offspring are discussed in the *sugya* quoting this source.

תוספתא מסכת נדה (צוקרמאנדל) פרק ב הלכה ז

לא ישא אדם מעוברת חברה ומינקת חברה משום שנ' אל תסיג גבול עולם ובשדה יתומים אל תבוא.

tNiddah 2:7

A person shall not marry a pregnant woman of his fellow or a nursing woman of his fellow for it is written [~Proverbs 23:10]: Do not remove the ancient boundary and do not enter the field of orphans.

The 'ancient boundary' refers to the rightful inheritance which would belong to the infant to be born making it necessary to know who the father is. This may also connect this part of the verse to superfetation, where the second fetus fathered by

³⁹ See, for example Tilley et al. 2009, 127–130. These three criteria – amenorrhea (defined as the absence of two consecutive days of uterine bleeding/spotting after lochia has ceased), fully breast-feeding without supplements, and within six months after birth – are necessary for the lactational amenorrhea method of birth control. The study was done on rural Egyptian women, over 80 % of whom unintentionally became pregnant in less than two years from the birth when one of the three criteria was absent and no other contraception was used.

⁴⁰ World Health Organization 1983.

⁴¹ Ibid., 372, 377.

the second husband overwhelms the first fetus. The 'field of the orphan' is a play on the word *שדה\שד* field/breast, referring to the nursing child. The verse in Proverbs has 'fields' rather than 'field' as we find in Tosefta.⁴² We find a similar issue in mYevamot 4:10 on the requirement of the *yevamah*⁴³ to wait three months before marrying to make sure that there is a paternity distinction.

משנה מסכת יבמות ד' י'
היבמה לא תחלוץ ולא תתיבם עד שיש לה שלשה חדשים וכן כל שאר הנשים לא יתאסרו ולא ינשאו עד שיהיו להן שלשה חדשים אחד בתולות ואחד בעולות אחד גרושות ואחד אלמנות אחד נשואות ואחד ארוסות רבי יהודה אומר הנשואות יתאסרו והארוסות ינשאו חוץ מן הארוסות שביהודה מפני שלבו גס בה רבי יוסי אומר כל הנשים יתאסרו חוץ מן האלמנה מפני האיבול:

mYevamot 4:10

A *yevamah* shall not perform *ḥalitzaḥ* or *yibum* until she has [completed a waiting period of] three months. And similarly all other women shall not become betrothed and shall not be married until they have [completed a waiting period of] three months whether they are virgins or have had sexual intercourse, whether they are divorcees or widows – whether married or betrothed.⁴⁴ Rabbi Yehudah says: The married women may become betrothed and the betrothed women may be married except for the betrothed women who are in Judea because [her betrothed's] heart is presumptuous toward her. Rabbi Yose says: All women may become betrothed except for the widow because of mourning.

This *baraita* (tNiddah 2:7) is quoted in bYevamot 42a in the discussion dealing with the requirement for a woman to wait three months after the death of her husband or her divorce from him in order to ascertain that she is not pregnant by him (mYevamot 4:10). It is presumed that a widow would not marry for at least the first month due to mourning her spouse. This reduces the three months to two months making the possibility of confusion of a full-term pregnancy from the first husband and a seven-month pregnancy from the second realistic. The Talmud maintains that a nine-month pregnancy will be full months whereas a seven-month pregnancy could be in partial months. An eight-month pregnancy was assumed by the sages not to be viable unless it was a seven-month gestation in which the birth was delayed until the eighth month for some reason.⁴⁵ Practically, the shorter the period of prematurity, the higher the likelihood is for survival. This is particularly the case in antiquity when modern life-saving techniques were not available. The Talmud here demonstrates that partial months for a seven-month gestation was possible by referring to Hannah's gestation of Shemuel in which it is stated (1 Samuel 1:20) *ויהי לתקופות ולימים ותהר חנה ותלד בן* "and it came to pass

⁴² See Lieberman 1939, 259. He brings the parallel in ySotah 4:4, 19c which conflates Proverbs 23:10 with Deuteronomy 19:14.

⁴³ A *yevamah* is the widow of a childless man who has paternal brothers. One of the brothers is obligated either to marry her in levirate marriage (*yibum*) or to release her from the obligation of levirate marriage through *ḥalitzaḥ*.

⁴⁴ This opinion became *halakhah*, not the opinions of Rabbi Yehudah and Rabbi Yose.

⁴⁵ See bYevamot 42a, tShabbat 15:7, and Bemidbar Rabbah (Vilna) *pareshat Bemidbar pāreshah* 4.

after seasons and days that Hannah conceived and gave birth to a son.” The minimum plural is two so this verse is understood as two seasons of the four seasons of the year which would be six months and the minimum plural of days would be two, making Hannah’s gestation and birth of Shemuel six months and two days according to rabbinic calculations. If she were to marry during the three months and become pregnant immediately, it would not be possible to determine with certainty the paternity of the child since the sages held that a seven-month gestation could yield a viable infant. This would disadvantage the child in terms of inheritance because the first husband’s heirs could claim that the child belongs to the second husband and the second husband’s heirs could claim that the child belongs to the first husband, effectively disqualifying him from any inheritance. What is significant for us in this text is the discussion about sexual relations during pregnancy and the possibility of superfetation.

תלמוד בבלי מסכת יבמות דף מב עמוד א

היכא דקים לן דמעוברת היא תנשא, אלמה תניא: לא ישא אדם מעוברת חברו ומינקת חברו, ואם נשא – יוציא ולא יחזיר עולמית! גורה שמא תעשה עוברה סנדל. אי הכי, ידידה נמי! אי למ”ד במוך – במוך, ואי למ”ד מן השמים ירחמו – מן השמים ירחמו. הכא נמי, אי למאן דאמר במוך – במוך, אי למאן דאמר מן השמים ירחמו – מן השמים ירחמו! אלא משום דחסה. אי הכי, ידידה נמי! ידידה חיים עילויה. הכא נמי חיים עילויה! אלא, סתם מעוברת למניקה קיימא, [מב ע”ב] דלמא איעברה ומעבר חלבה וקטלה ליה. אי הכי, ידידה נמי! ידידה ממסמסא ליה בביצים וחלב. ידידה נמי ממסמסא ליה בבצים וחלב! לא יב לה בעל. וליתבעיניה ליורשים! אמר אביי: אשה בושה לבא לבית דין, והורגת את בנה.

bYevamot 42a

Where it is clear to us that she is pregnant [from the first husband], let her marry [as the inheritance issues are clear]! But it is taught [in a *baraita*]: A person shall not marry a pregnant woman of his fellow or a nursing woman of his fellow but if he did marry – he shall divorce her and never remarry her!⁴⁶ This [prohibition on a pregnant woman marrying] is a decree lest she make her fetus a *sandal* [fetus compressus]. If so, this should apply also for his own [wife that he should not have intercourse with her during pregnancy]! If [the ruling is according] to the one who said with a *mokh* [let her use a contraceptive] *mokh*. And if [the ruling is according] to the one who said, ‘they will be merciful from the heavens,’ let them be merciful from the heavens. Here, too, [it can be argued] if [the ruling is according] to the one who said [she uses a contraceptive] *mokh*, – [let her use a contraceptive] *mokh*. And if [the ruling is according] to the one who said, ‘they will be merciful from the heavens,’ may they be merciful from the heavens! Rather, it is because of pressure on her [womb during coitus]. If so, his own wife also [is subject to such pressure]! A man would have care about his own [wife and fetus]. Here, too, [the second husband] would have care about her [and her fetus]. Rather, a pregnant woman normally becomes a nursing woman – [42b] lest she became pregnant and her milk becomes turbid [and unpalatable to the infant] and kills him [by starvation]. If so, [this possibility holds] also for his own [child]. His own he would feed with a mixture of eggs and milk. Her own also she would feed with a mixture of eggs and milk! Her [second] husband would not give her [the means to purchase them]. Let her demand

⁴⁶ This last clause is not found in the *baraita* quoted above. It may be from a different tannaitic source, a Babylonian *baraita*, or an amoraic statement in middle Hebrew added to the *baraita* which seems most likely to me. The phrase is not in the genizah fragment CUL: Add. 3207 though it is in the other manuscripts – Munich 95, Vatican 110, Pesaro.

[sustenance for the infant] from the first husband's heirs! Abaye⁴⁷ said: It is embarrassing for a woman to go to court and she [instead] would kill her child [by neglect].

This text gives several reasons for a widowed or divorced woman who is pregnant or nursing not to remarry until the two-year period of nursing is over.⁴⁸ Our three women *baraita* is the background of the *sugya*. The first concern is superfetation, that is, she would conceive again while pregnant and one fetus would compress the other fetus. According to this logic, the possibility of superfetation exists also with normal marital relations during pregnancy. This text does not decide between the opinions of using a *mokh* or being granted mercy from the heavens, indicating that at this stage in the redaction of the Talmud the decision concerning use of a *mokh* had not been made. It is assumed that either the *mokh* or mercy from heaven would protect her from conceiving again.

The possibility of superfetation, conceiving again during an existing pregnancy, has a long history. Hippocrates' book entitled *On Superfetation* accepts the possibility of superfetation. For humans three conditions are necessary if superfetation is to occur:

- 1) the progesterone produced by the corpus luteum of the follicle from which the ovum which created the first pregnancy was released, or progesterone produced later by the embryonic placenta must be insufficient to prevent subsequent ovulation.
- 2) the cervical mucous plug must be permeable so that sperm could fertilize another ovum.
- 3) the developing gestational sac must not block the fallopian tubes so that a subsequent fertilized ovum can enter and implant in the uterus

A concurrence of these three conditions is considered an exceptionally rare situation. It should be noted that in cases of uterus didelphys, a double uterus each of which has its own cervix and sometimes its own vagina, certainly could be responsible for superfetation.⁴⁹ According to Isaac Blickstein,⁵⁰ most of the alleged cases of superfetation can be attributed to size-discordant twins, a situation which may have begun early in the pregnancy. Some may also be attributed to interval delivery in which one or more fetuses in a multiple preg-

⁴⁷ Munich 95 seems to have the reading Rava instead of Abaye.

⁴⁸ See tNiddah 2:4.

⁴⁹ Mashiah et al 1981: (<https://www.ncbi.nlm.nih.gov/pubmed/7279347> <https://www.ncbi.nlm.nih.gov/pubmed/7279347>), records the pregnancy of twins in one uterus, one of which died in the twenty-second week of gestation but was born with the other twin in the twenty-seventh week of gestation. The fetus in the other uterus was born by C-section in week thirty-seven. Chan et al. 2011 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3191936/>) state that the prevalence of didelphys uterus is 0.3 %. Although successful births have been noted with that condition, uterine anomalies are often connected with miscarriage and infertility.

⁵⁰ See Blickstein 2003. He also attributes some to misdiagnosis of multiple pregnancy and fraudulent reports.

nancy are born prematurely while the other(s) are retained for later delivery. Kathleen Roellig and her co-authors maintain that superfetation occurs very rarely in humans. They suggest that high resolution ultrasound may aid in showing early discordance of twins with frequent follow-up.⁵¹ They refer to superfetation, which has been noted in the presence of ectopic pregnancy and bicornate uterus.⁵² There are many anecdotal reports of superfetation especially in the first month after conception.⁵³ A recent study suggests that superfetation is possible due to:

- 1) a wave of antral follicle recruitment post ovulation, that is, other follicles are stimulated to mature even after ovulation due to FSH;
- 2) some of the endocrinological responses to embryonic implantation may be compatible with luteal out-of-phase (LOOP) yielding an atypical increase in E₂ (estradiol, an estrogen steroid hormone) after the ovulation in which there was conception;
- 3) the increased E₂ levels may allow sperm transport to an ovum;
- 4) the implantation site may occlude the fallopian tube ostia (openings) but the other fallopian ostia may allow spermatozoa transit;
- 5) decidual reaction, that is the increase in the endometrial secretions creating edema in the uterine lining which would impede implantation, is not complete and can allow implantation in other areas of the uterus.⁵⁴ It is possible that technology will be able to verify the existence of superfetation in these cases.

Pressure on the woman's uterus during coitus was suggested as a possible external cause for creating a *sandal* for either husband. It should be noted that suggestions of other positions during coitus were not made.⁵⁵ It is unclear whether this is an issue of modesty, censorship, or whether it is simply irrelevant for the argument as the structure is what is significant for the argument. The bottom line is concern for the welfare of the fetus.

A subsequent pregnancy may affect the quality or quantity of the nursing woman's milk, thereby having impact on the welfare of the nursing child. The biological father would be invested in his child and provide sustenance for the infant

⁵¹ See Roellig et al. 2011, especially 85. There is strong evidence of spontaneous ovulation after embryo transfer. They refer to other suspected cases of superfetation.

⁵² Roellig et al. 2011., 85 referring to Honore and Nickerson 1977; Kobayashi et al. 1996; and Singhal et al. 2003.

⁵³ Currently in the news but unverified in medical journals as of yet is the case of superfetation in Turkey in which the fetuses were conceived a month apart.

⁵⁴ See Tarín et al. 2013. They also note that this phenomenon can occur for the first ten weeks after conception and possibly somewhat later, though it is most common in the first month after conception.

⁵⁵ The rabbis were aware of other coital positions and sexual acts but seem to have had contradictory stances concerning them in bNedarim 20a–b. It was decided that a man had the right to have sexual relations in the manner in which he chose. See Meacham 2014.

either by using the recipe here of milk and eggs⁵⁶ or perhaps a wet nurse – both of which were extra expenses. The second husband might not give his wife the resources to purchase the extra food for the infant of another man. The anonymous Talmud brings up the possibility that the woman could petition the heirs of the first husband (or the first husband himself if they had been divorced) in court for the money to pay for the extra food as the financial obligation for the maintenance of the infant is the biological father's or his heirs. Abaye considered it so embarrassing for a woman to petition in the court that she would rather not do so and as a result, the infant would die due to malnutrition.⁵⁷ The language here, however, is much stronger: 'lest she kill her child.' The second husband's lack of concern for his wife's fetus or nursing baby from the first husband is assumed. The strong language against the biological mother reinforces the accusations against the second husband's lack of concern for the welfare of another man's fetus or infant.

Both superfetation and the change in the milk as a result of a new pregnancy are accepted as possible outcomes. Superfetation has less play in the *sugya* but this may be because the likelihood of superfetation also exists with one's husband. Rather than even suggesting that sexual relations during pregnancy should be prohibited, the care of the biological father for his potential or existing offspring is emphasized. In contrast, it is assumed that the second husband would have less concern for the first husband's existing or potential offspring. The woman is portrayed as being more concerned with her embarrassment than with the welfare of her child. Although this may be true in some instances, for the sages to generalize this feeling is to denigrate the woman's maternal feelings as well as her sense of justice. It should be noted that infants were to be nursed for two years according to tNiddah 2:3. This would mean that if a woman were pregnant from her first husband who then died or divorced her, she would not be allowed to remarry until she had weaned her child. This could mean nearly three years before a pregnant widow or divorcee could remarry, having significant impact on her well-being.

The physiological issues of nursing during pregnancy are not actually addressed but are assumed. In reality, hormones produced by the pregnancy can cause nipple tenderness, which in turn can make nursing painful, particularly if the nursing child does not latch on deeply.⁵⁸ Signals given off by the mother due to the pain may discourage nursing. In times of short food supply, the nutritional

⁵⁶ This increases the likelihood of possible adverse reaction to eggs and milk as well as the possibility of bacterial infection.

⁵⁷ Abaye's concern that women would be too embarrassed to petition the court for a child's legal right to maintenance from the father's heirs brings up the much larger concern that women did not have easy or equal access to their judicial rights. In the area of divorce, the inequity was to some extent addressed by the creation of the women representatives of other women in the religious courts in the last few decades.

⁵⁸ See Moscone and Moore 1993. Nipple pain and fatigue were the most common reasons for weaning an infant while pregnant. See also Lauwers and Shinskie 2000, 410; and Lawrence and Lawrence 1999, 671–673.

drain on the woman of both nursing and gestation may also have impact on her desire or ability to nurse. During the second trimester of a pregnancy, colostrum (first milk) production begins for the unborn child. This may be what the sages referred to as 'makes her milk turbid' for the child already nursing. Colostrum can change the taste of the milk and the nursing child may self-wean as a result of the taste, though the nutritional quality of the milk remains. According to one study, 69 % of nursing infants wean themselves spontaneously when the mother became pregnant, while another study found that 57 % of infants wean themselves spontaneously.⁵⁹ This was certainly a danger to the nursing child in antiquity if a wet nurse or other safe and reliable food sources were unavailable. Another issue that arises while nursing during pregnancy is that the oxytocin produced during lactation may stimulate uterine contractions. If a woman has previously given birth to a preterm baby or if there is a multiple pregnancy or some bleeding during pregnancy, many physicians currently recommend weaning the nursing child to prevent complications with the pregnancy.⁶⁰

We shall now turn to a closer examination of superfetation. We define superfetation as conceiving during an established pregnancy. There have been many anecdotal reports of women with twins who claim that one twin is a month younger than the other. Size discordance in twins has usually been attributed to problems with the smaller twin's placental function, genetics, placental positioning, circulation issues and the like. There have been several cases in which superfetation was suspected but not completely demonstrated. There have been, however, a very small number of cases in which superfecundation (ovulating more than once in the same cycle with fertilization from separate acts of intercourse) was proven prior to the existence of DNA testing. These cases involved infants of different races meaning that the woman had intercourse with more than one partner during the window of conception, considered a matter of hours or at most two days. Recent research has demonstrated that there may be waves of hormones causing ovulation of more than one follicle in a cycle even several days apart. With current ultrasound technology, development in twin pregnancies can be diagnosed to the exact day and even hour. When these differ superfetation is demonstrated, particularly when the difference in stage of development is longer than a few days so that the conception is not due to superfecundation, a second ovulation in the same menstrual cycle. In the last decade, several instances of superfetation have been suspected and to some extent demonstrated. Usually the different conceptions occur within two weeks to one month of each other. The anecdotal reports of one infant being a month younger than its twin might have been a case in which the existing pregnancy did not suppress ovulation in the next cycle. The conceptions differing by two weeks indicate that hormonal production caused another

⁵⁹ See Newton and Theotokatos 1979, 845 and Moscone and Moore 1993.

⁶⁰ Lawrence and Lawrence 1999, 672.

ovarian follicle to ripen, burst and be fertilized shortly after implantation of the first embryo.

We have some Talmudic discussions concerning a delay between the births of twins. The context of our first source is the delay of the birth of the placenta after the infant was born discussed in bNiddah 26b. The Mishnah on bNiddah 24b states: "One who aborts a *sandal* or a placenta – she shall sit [the days of birth impurity] for male and for a female." The following Mishnah on bNiddah 26a attributes death impurity when a placenta is born even without a fetus attached to it. After several comments, a discussion begins about the placenta being born after the infant. Rav Yehudah reported in the name of Rav that for the first three days after the birth of the infant the later birth of the placenta can be attributed to that infant. After that, we suspect that there might have been another fetus and this placenta might be connected to that fetus which may have vanished in utero. Rav is reported to say: "A fetus/infant is not delayed after [the birth of its] fellow [twin] at all." The context is the length of ritual impurity because if the fetus born first was male and another fetus was suspected which may have been female – it would require a longer period of ritual impurity.

תלמוד בבלי מסכת נדה דף כו עמוד ב
 יתיב רב יצחק בר שמואל בר מרתא קמיה דרב כהנא ויתיב וקאמר, אמר רב יהודה אמר רב: כל שלשה ימים הראשונים – תולין את השליא בולד, מכאן ואילך – חוששין לולד אחר. אמר ליה: ומי אמר רב הכי? והאמר רב: אין הולד מתעכב אחר חבירו כלום! אישתיק. אמר ליה: דלמא כאן – בנפל, כאן – בבן קיימא? אמר ליה: את אמרת לשמעתייה דרב? בפירוש אמר רב הכי: הפילה נפל ואחר כך הפילה שליא – כל שלשה ימים תולין את השליא בולד, מכאן ואילך – חוששין לולד אחר. ילדה ואח"כ הפילה שליא – אפילו מכאן ועד עשרה ימים אין חוששין לולד אחר.

bNiddah 26b

Rav Yitzḥaq bar Shemuel bar Marta was sitting before Rav Kahana,⁶¹ sitting and saying: Rav Yehudah said [in the name of] Rav: All the first three days [after the birth of a fetus/infant] they attribute the placenta to the fetus; from there on they suspect another fetus. He said to him: And did Rav say thus? Did not Rav say: A fetus/infant does not delay after its twin at all! [Rav Yitzḥaq bar Shemuel bar Marta] was silent. [Rav Kahana] said to him: Perhaps here [it is in reference] to a nonviable fetus, [and] here [it is in reference] to a viable infant? He said to him: Are you explaining the tradition of Rav? Rav said explicitly thus: She aborted a nonviable fetus and afterwards expelled a placenta – all three days she attributes the placenta to the fetus. From there on, they suspect another fetus. She gave birth and afterwards expelled a placenta – even from here to ten days they do not suspect another fetus.

A distinction is drawn between a viable infant for which it is possible to attribute a placenta up to ten days whereas for a nonviable fetus it is only up to three days. After another short discussion, we have a discussion of a lengthy delay between the birth of the first twin and the birth of the second twin.

⁶¹ Munich 95 and Vatican 110 have Rav Huna while Vatican 113 has Rav Yosef instead of Rav Kahana.

תלמוד בבלי מסכת נדה דף כז עמוד א
 אמר רבה בר שילא אמר רב מתנה אמר שמואל: מעשה ותלו את השליא בולד עד עשרה ימים, ולא אמרו תולין – אלא בשליא הבאה אחר הולד. אמר רבה בר בר חנה אמר רבי יוחנן: מעשה ותלו את השליא בולד עד כ"ג ימים. אמר ליה רב יוסף – עד כ"ד אמרת לן. אמר רב אחא בריה דרב עזרא א"ר יצחק: מעשה ונשתתה הולד אחר חבירו ל"ג יום. א"ל רב יוסף: ל"ד אמרת לן. הניחא למאן דאמר יולדת לתשעה יולדת למקוטעין – משכחת לה: אחד נגמרה צורתו לסוף שבעה, ואחד נגמרה צורתו לתחלת תשעה. אלא למ"ד יולדת לתשעה אינה יולדת למקוטעין מאי איכא למימר? איפוך שמעתתא: ל"ג – לשליא, כ"ג – לולד. א"ר אבין בר רב אדא אמר רב מנחם איש כפר שערים, ואמרי לה בית שירם: מעשה ונשתתה ולד אחד אחר חבירו ג' חדשים, והרי הם יושבים לפנינו בבית המדרש. ומאן נינהו? יהודה וחזקיה בני רבי חייא. והא אמר מר: אין אשה מתעברת וחוזרת ומתעברת! אמר אביי: טיפה אחת היתה ונתחלקה לשתיים, אחד נגמרה צורתו בתחלת ז', ואחד בסוף ט'.

bNiddah 27a

Rabbah bar Shela said Rav Matanah said Shemuel said:⁶² There was a case and they attributed a placenta to an infant up to ten days but they did not say 'attribute' except for a placenta which comes after [the birth of] an infant.⁶³ Rabbah bar bar Hannah said [that] Rabbi Yohanan said: [There was] a case and they attributed the placenta to the infant up to twenty-three days [after its birth]. Rav Yosef said to him: You said to us twenty-four days. Rav Aha the son of Rav of Avira said [in the name of] Rabbi Yitzhaq:⁶⁴ [There was] a case and the infant remained [in utero] thirty-three days after its fellow [twin was born]. Rav Yosef said to him: You said to us thirty-four. This is not a problem for the one who says: [a woman who] births at nine months [may] birth at shortened [months, that is, not nine complete months] – she finds [that] one [twin] completed its formation at the end of seven [months] and one completed its formation at the start of nine [months so there is a thirty-three day interval]. But for the one who says: a woman births at nine [complete] months and does not birth at shortened [months] – what is there to say? Reverse the traditions: thirty-three [day delay] for the placenta, twenty-three [day delay] for the [twin] infant.⁶⁵ Rabbi Avin bar Rav Adah said [in the name of] Rav Menahem Ish Kefar She'arim and [others] say Beit She'arim:⁶⁶ [There was] a case in which one infant remained [in utero] after its fellow

⁶² According to the Friedberg *Geniza* Project, Munich 95 has an additional line of tradition "and they say it Rav Nahman said Shemuel said Rabbi said." This is followed by a homeoteleuton skipping the case of ten days and going directly to the case of twenty-three days delay. The *geniza* fragment TS-NS 329.73 and Vatican 113 also have an additional line of tradition "and they say Rabbah bar Rav Shela said Rav Nahman said Shemuel" (with abbreviations and a tear in the *geniza* fragment). Vatican 111 has the version found in the printed editions.

⁶³ The *geniza* fragment TS-NS 329.73 adds a reason "the placenta which comes after [the birth] of an infant [for they say it was surely uprooted and went out but before the infant they do not suspect another infant.]" It is difficult to understand this addition because if the placenta detached before the infant were born (placental abruption) it would cause an immediate and possible fatal hemorrhage.

⁶⁴ Munich 95 has "Rav Aha the son of Rav of Ava said [in the name of] Rabbi Yitzhaq" (with abbreviations). Vatican 113 has "Rav Aha the son of Rav of Ava said Rabbi Asi said Rabbi Yohanan" which gives us a Palestinian tradition for the case of an interval delayed birth of thirty-three or thirty-four days. Similarly, the *geniza* fragment has "Rav Aha the son of Rav of Avia said Rabbi Yohanan" gives a Palestinian tradition. Vatican 111 has the version in the printed edition.

⁶⁵ In this case both could be born in the seventh month and, according to the rabbis, be viable.

⁶⁶ There are several variant readings in reference to the names in this tradition but they do not have any bearing on the statement itself.

three months! And behold they are sitting before us in the study house. And who are they? Yehudah and Hizqiah the sons of Rabbi Ḥiyya. But did not a master say: A woman does not conceive and conceive again [while pregnant]! Abaye said: There was one drop and it was divided into two. One's form was completed at the start of seven [months of gestation and he was birthed then], and one was completed at the end of nine [months of gestation and he was birthed then].

There is an additional story concerning the reproductive life of Rabbi Ḥiyya and his spouse Yehudit.

ב' יבמות סה ע"ב-סו ע"א
 יהודה וחזקיה תאומים היו, אחד נגמרה צורתו לסוף תשעה, ואחד נגמרה צורתו לתחלת שבעה; יהודית
 דביתהו דר' חייא הוה לה צער לידה, שנאי מנא ואתיא לקמיה דר' חייא, אמרה: אתתא מפקדא אפריה
 ורביה? אמר לה: לא. אזלא אשתיא סמא דעקרתא, לסוף איגלאי מילתא, אמר לה: איכו ילדת לי חדא
 כרסא אחריתא; דאמר מר: יהודה וחזקיה אחי, פזי וטוי (סו ע"א) אחוותא.

bYevamot 65b–66a

Yehudah and Hizqiah were twins. One's formation was completed at the end of nine [months of gestation]; one's formation was completed at the beginning of seven [months of gestation].⁶⁷ Yehudit, the wife of Rabbi Ḥiyya had distress [because of] birthing. She changed her clothes and came before Rabbi Ḥiyya and said: [Is] a woman commanded concerning procreation? He said to her: No. She went and drank a sterilizing drug. In the end the matter was discovered. He said to her: Would that you had birthed me one more [pregnant] belly. For a master said: Yehudah and Hizqiah are [twin] brothers, Pazi and Tavi are [twin] sisters.

There is a question whether this was a contraceptive potion or an abortifacient. In any case, the repeated twin pregnancies, particularly when one was due to superfetation because of the long interval and the unlikelihood that an infant two to three months premature could survive, were especially difficult for their mother. These obstetrical difficulties with twins, especially the prolonged delay between births of viable infants, could be indicative that Yehudit may have had a double uterus. The continuation of the *sugya* returns to the question of whether women are obligated in procreation and bring a case concerning a half-slave and half-free woman who was not allowed to marry because of her half-slave status. The rabbis forced her master to free her in order to prevent men from taking sexual liberties with her. This raises the possibility that perhaps there is a connection between superfecundation and different sexual partners.

After bringing reports of a placenta being delivered after an interval of ten days and twenty-three or twenty-four days after the birth of an infant,⁶⁸ the *sugya* brings a case of an interval delay of thirty-three days for twins. Since there is an

⁶⁷ These two sentences are missing in Munich 141, Munich 95, Vatican 110 and genizah fragment CUL T-S F2(2).1.[א] though the fact that they are twins is mentioned at the end of the genizah fragment. It is likely that the sentences are a gloss from bNiddah 27a.

⁶⁸ Placental retention is due to a deeply embedded placenta which does not separate from the uterine wall (placenta accreta) or the placenta separates from the uterine wall but the cervix partially closes not allowing the placenta to be born (entrapped placenta). The danger of hemor-

opinion that a woman who gives birth to a fetus of nine months' gestation must give birth with complete months, they solve the difficulty by reversing the cases so that there is only a twenty-three day delay between the twin births. Despite the fact that this source holds that superfetation is impossible, it nevertheless describes a situation in which twins were born three months apart.⁶⁹ It is extremely unlikely that an infant born two or three months prematurely would survive in antiquity. There is no mention of special care or size that would indicate that the first twin born was premature and his brother was born at full-term. The text is very clear that one stayed in utero much longer than the other using the root *sh.h. h.* in its intransitive *nitpa'el* form. This makes it unlikely that it was an interval delivery as opposed to superfetation.⁷⁰ This is based on the rabbinic belief that seven-month fetuses are viable and nine-month fetuses are viable. The fetus which completed its form at the start of seven months was born at the beginning of the seventh month but the other did not complete its form until the end of nine months when it was born, which adds up to three months difference.

By attributing the separated twin births to one conception and different rates of gestational development, the Bavli denies the possibility of superfetation. The anonymous statement in bNiddah 26b and 27a 'the woman does not become pregnant and return and become pregnant [with the second conception]' is also found in yNiddah 3:4, 51a, brought by Rabbi Ze'ira in the name of our teachers:

ירושלמי נדה ג' ד' נא ע"א

רבי זעירא בשם רבנן הן דא דא אמרת תולין שיליא בוולד שאין האשה מתעברת וחוזרת ומתעברת.

yNiddah 3:4, 51a

Rabbi Ze'ira [said] in the name of our sages: That which you say that the placenta is dependent on a fetus, for a woman does not become pregnant and return and become pregnant [with the second conception].

Rabbi Ze'ira may be presenting a Babylonian opinion because he was originally from Babylon. This may be a dispute between the sages of Babylon and the sages of the Land of Israel.

We see in the following Mishnah an attempt to clarify the obligations of the man who had relations with his levirate wife and found she was pregnant. The discussion in the *Yerushalmi* relates to the issue of superfetation.

rhage and the likelihood of infection traveling up the umbilical cord to the uterus is high, making this prolonged delay before the placenta emerges quite unlikely. See Weeks 2008.

⁶⁹ In the parallels, bGittin 38b and bGittin 43b, the case of a half-slave and half-free woman is not juxtaposed to the story of Yehudah and Hizqiah.

⁷⁰ Compare Blickstein 2003, 217 who did not relate to the unlikelihood that an infant of a six-month or seven-months' gestation would survive in antiquity. In the other story of interval delay, there are no details about the infants' survival whereas Yehudah and Hizqiah reached adulthood.

משנה מסכת יבמות פרק ד' ב'
הכונס את יבמתו ונמצאת מעוברת וילדה בזמן שהולד של קיימא יוציא וחייבין בקרבן ואם אין הולד של קיימא יקיים. ספק בן תשעה לראשון ספק בן שבעה לאחרון יוציא והולד כשר וחייבין באשם תלוי.

mYevamot 4:2

One who performs levirate marriage with his *yevamah* and she is found to be pregnant and gives birth: when the infant is viable – he divorces her and they are liable for a sacrifice. But if the infant is not viable, he shall keep [her as a levirate wife]. A doubtful nine-month [gestation] for the first [husband], a doubtful seven-month [gestation] for the second [husband] – he shall send her forth [by divorce] but the infant is of unblemished [status] and they are liable in a doubtful guilt offering.

Since this Mishnah seems to hold that it is equally possible for the *yevamah* to have either a nine-month gestation from the first husband or a seven-month gestation from levirate marriage, *yYevamot* 4:2, 5c tries to weigh the possibilities in the continuation of the *sugya*:

- 1) if the *yavam* had intercourse immediately after the death of the husband and the pregnancy was recognized after two months – it could be a nine-month child for either of them or seven-month child for either of them;
- 2) if he had intercourse with her after two months and the fetus was recognized after three months – then there should be a longer waiting period than three months due to confusion;
- 3) if the *yavam* had intercourse after forty days and the pregnancy was recognized after fifty days – then it would be a complete nine-month gestation for the first husband or a seven-month gestation of partial months for the *yavam*.

They come to the following conclusions:

- 1) a woman can give birth after complete months;
- 2) there are two kinds of pregnancies – one of nine-months' gestation and one of seven months' gestation;
- 3) “You understand from this that a pregnant woman returns and becomes pregnant [with the second conception]”; *את שמע מינה שהאשה מעוברת וחוזרת ומתעברת*;
- 4) a woman cannot become pregnant from two men at the same time.

The last conclusion is not absolute – if the semen has not decomposed, she can become pregnant from two men at the same time. The third conclusion of this text of the *Yerushalmi* maintains that superfetation is possible.

Despite the disagreement in the Talmudim concerning the possibility of superfetation, there seems to have been an actual case that demonstrates that superfetation occurred mentioned in *bNiddah* 27a and referred to again in *bYevamot* 65b–66a since one twin remained in utero for three months after the birth of his brother. The Bavli claims that it was a case where one conception had split into two. One's formation, the twin born first, was completed at seven months while

the twin, which remained in utero, was completed only after nine months of gestation. Rabbi Ḥiyya and his sons immigrated to the Land of Israel from Babylonia which is probably why their exceptional birth story is only found in the Bavli. We do, however, have a tradition from sages of the Land of Israel of a thirty-three or thirty-four-day interval between the birth of twins which may be an abstraction of the case of Rabbi Ḥiyya and his sons. Yehudah and Ḥizqiah were apparently successful not only in business but also in Torah learning – so this very odd birth was successful and proof of superfetation.

3. Pregnancy of a Minor

We must now discuss the remaining category in our *baraita* of three women who use contraception, the minor girl from age eleven to twelve. This is not only the least likely but the most problematic in the ethical realm. Here I am working on the assumption that sexual relations with a prepubertal girl, even in the situation of marriage, constitutes child abuse. For the rabbis such a marriage was considered legitimate and consummation of that marriage was also legitimate. A girl's father had the right to marry her off with a marriage of biblical validity from her birth by money or document (mQiddushin 1:1) or by intercourse at the age of three years and a day (mNiddah 5:4). Rabbinic sages did have some hesitation about a father who had married off his minor daughter and who subsequently was divorced or became a widow while she was still a minor. In those situations, the father lost his right to marry her off though he may have retained sufficient authority in the family context to do so again. It is generally maintained that this was because she was considered beyond his legal reach after having been in the legal domain of her husband. Shammai's voice in mYevamot 13:1 reflects concern with protection of the minor girl and seeks to limit the marriage of minors by guardians because "the daughters of Israel are not *hefker* – ownerless property." It was, however, probably ineffective since Hillel's position, "she repudiates [a marriage by a guardian] as a minor even four or five times," became law. Such a situation, if true, would reduce her to little more than a child prostitute due to serial liaisons of a temporary nature. The right to marry off a minor whose father had died or whose biblically valid marriage ended in divorce or widowhood reverted to her legal guardian, usually the mother or a brother. This was also the case if she were orphaned from her father before he married her off. The marriage arranged by guardians had only rabbinic stature as opposed to a marriage arranged by the father, which had enhanced biblical stature. As a result of the lesser validity of the marriage, the girl could repudiate the marriage arranged by guardians prior to showing signs of the rabbinic definition of puberty, that is, sprouting two pubic hairs and attaining the age of twelve years and a day. This repudiation, *me'un*, dissolved the marriage *ab initio* so that no writ of divorce was required. In mNiddah

6:11 we find different legal opinions on when the girl's right to repudiate the marriage ended:

משנה מסכת נדה ו' י"א
...תנוקת שהביאה שתי שערות אינה יכולה למאן רבי יהודה אומר עד שירבה השחור.

mNiddah 6:11

... A girl who has sprouted two [pubic] hairs cannot repudiate [a marriage arranged by a guardian]. Rabbi Yehudah states: [She may repudiate] until the dark [of her pubic hairs] becomes greater than the light.

Even greater variation on the limits of repudiation is found in tNiddah 6:5–6:

תוספתא מסכת נדה (צוקרמאנדל) פרק ו' ה-ו'
עד מתי תינוקת ממאנת עד שתביא שתי שערות דברי ר' מאיר ור' יהודה אומר עד שירבה שחור על הלבן ר' יוסי אומר עד שתקיף עטרה ר' שמעון אומר עד שתפשט את הכף בן שלקית אומר עד שתכלכל:
אמר ר' שמעון מצאני חנניה בן כינאי בצידן אמר לו כשתלך אצל ר' עקיבא אמור לו עד מתי תינוקת ממאנת אם יאמר לך עד שתבוא שתי שערות אמור לו והלא במעמד כלכם העיד בן שלקות ביבנה עד שתכלכל כשבאתי והרציתי דברים לפני ר' עקיבא אמר לי כילכול איני יודע בן שלקית איני מכיר אלא עד שתביא שתי שערות:

tNiddah 6:5–6

Until when may a girl repudiate [a marriage arranged by a guardian]? Until she sprouts two [pubic] hairs – [these are the] words of Rabbi Meir. But Rabbi Yehudah says: Until [the] dark [pubic hairs] become greater than [the] light. Rabbi Yose says: Until the crown [of pubic hairs] surround.⁷¹ Rabbi Shimon says: Until it spreads over the *mons pubis*.⁷² Ben Shalqit says: Until she has much hair/a crown of hair.⁷³

Rabbi Shimon said: Ḥaninah ben Kinai found me in Tzidon. He said to him when you go to Rabbi Akiva, say to him: until when can a girl repudiate? If he shall say to you: until she sprouts two [pubic] hairs, say to him: did not ben Shalqit testify in front of all of you in the Yavneh: until she has a crown of hair? When I came and spoke these things before Rabbi Akiva, he said to me: this crowning of hair – I do not know; ben Shalqit I do not know. Rather until she brings two [pubic] hairs.

The following sources, tNiddah 6:5–6, yYevamot 1:1, 2d–3a and bNiddah 52b (see below),⁷⁴ relate to the extent of pubic hair growth which prevents a girl married

⁷¹ This phrase, *עד שיקיף*, is used in mNiddah 6:11 referring to male pubic hair encircling the penis but there is no attribution to a Tanna in that Mishnah. Here the word *עטרה* is an unusual way to refer to female genitalia. For that reason, it may be referring to the spreading of pubic hair beyond the labia.

⁷² The *mons pubis* is the skin on top of a subcutaneous fat pad covering the *symphysis pubis*. As a girl approaches puberty subcutaneous fat accumulates under the *mons pubis* and the covering skin will develop pubic hair. See Lowe et Anderson 2015, 337.

⁷³ This phrase, *עד שתכלכל*, is not common in Middle Hebrew. In mShabbat 8:4 we find in reference to what can be carried out on the Sabbath that creates liability “enough lime to spread on the smallest of girls. Rabbi Yehudah said: [Enough] to make a hair crown *כלכל*.” The discussion on this phrase is found in bShabbat 80b which refers to depilation with the lime especially of the pubis if a girl had brought forth hairs before attaining the proper age. We may wonder if this is an attempt to deny the possibility of precocious puberty. It seems that this refers to a significant amount of hair growth, that is, greater than all the other positions mentioned.

⁷⁴ See Lieberman's (1939, 274) comments on the differences between these sources.

off by a guardian from repudiating her marriage by *me'un*. We see that tNiddah adds the additional category of Rabbi Shimon – until the pubic hair spreads over the *mons pubis*. These gradations are fairly similar to Tanner's Stages of pubic hair development. Tanner's Stage II is the presence of straight light hairs along the labia. Rabbi Meir's position, sprouting two pubic hairs, certainly fits into Stage II. It is possible to understand Rabbi Yehudah's position – until the dark is greater than the light – as either referring to the initial light-colored hairs becoming darker or the presence of hairs on lighter colored skin, that is, later in Stage II or early in Stage III. The darkness of the hairs in Stage II would depend on genetics/racial group and would most likely be darker in the Mediterranean area. In Stage III the pubic hairs start to become curly and darker and spread beyond the labia. This seems to be in accordance with the position of Rabbi Yose – until the crown/wreath surrounds. Presumably this would refer to a roundish area in the lower pubis covered by pubic hairs as opposed to the parallel lines of hair on the labia. The meaning of the word עטרה is not entirely clear. The same language was used by Rabbi Yose in reference to breast development in tNiddah 6:4 with a parallel in bNiddah 47a.⁷⁵ In those texts the phrase is referring to the areola surrounding the nipple. Rabbi Shimon's position that the pubic hairs spread to the *mons pubis* also indicates a more advanced stage of development, late Tanner Stage III or early Stage IV. The final position, that of ben Shalqit, seems to indicate an even greater growth of pubic hair. The root כלכל is used in mNazir 1:1 in a list of other words all of which mean hair growth to indicate that the speaker intends to become a Nazirite. The Nazirite is forbidden to cut his hair until the period of *nezirut* is over. Given its position in the list in tNiddah and its connection with hair growth, we could expect that ben Shalqit's position is the most lenient and gives the girl the greatest amount of time in order to repudiate her marriage. No legal decision was made in either of the texts quoted above.

Another *sugya* relates to both *me'un* and the possibility of a minor giving birth. This *sugya* is on mYevamot 1:1 concerning the fifteen women who exempt their

⁷⁵ Munich 95 has Eliezer in an abbreviated form while Vatican 111 and 113 and Vat. Ebr. 487/1 and tNiddah have Elazar. In bNiddah the text opens with *tannu rabbanan*, a normal *baraita* opening but after the words of Rabbi Elazar bar Rabbi Tzadoq and Rabbi Yoḥanan ben Beroqah, there is question on the latter's position in Aramaic and answered by Rav Ashi, a late Babylonian *amora*. The *baraita* then continues with Rabbi Yose's statement though Munich 95 has the verb in masculine singular משיתקיה possibly under the influence of the masculine form in the statement of Rabbi Yoḥanan [ben Beroqah]. Alternatively, the letter *yod* is reflecting vocalization though it would not be the standard vocalization. The other mss (Vatican 111, 113 and Vat.ebr. 487/1) have the feminine singular form משתקיה which seems to be correct since the word עטרה is feminine. Rabbi Shimon in tNiddah has הכה משתפשט and later הכה את פשטה while the three Vatican mss and Munich 95 in bNiddah have משנתמעך הכה and also in the continuation where upper and lower signs are paralleled. In Vatican 111 there was a skip in the text which was filled in in the margin and a correction between the lines so that the version is similar to the version in Munich. Munich 95, Vatican 111 and 113 have Rabbi Shimon ben Yoḥai instead of Rabbi Shimon in the continuation.

co-wives from *yibum* and the problem with the last clause, “But you cannot say of his mother-in-law or the mother of his mother-in-law or his father-in-law’s mother if they were found to be *ailoniot* or if they repudiated [a marriage arranged by a guardian while he was still a minor].” An *ailonit* appears as a female who does not develop secondary sexual characteristics and therefore is not fertile.⁷⁶ It is impossible because the *ailonit* who has always been infertile would have had to give birth prior to marrying his brother and repudiation, *me’un*, must be done while the girl is a minor.

The following text from *yEvamot* will present a case where a minor girl was married off by a guardian, gave birth, and afterwards attempted to repudiate the marriage. This seems to be in disagreement with the last clause of *mYevamot* 1:1. The *sugya* will lay out the various the various legal positions.

תלמוד ירושלמי (ונציה) מסכת יבמות פרק א דף ב טור ד/ה"א
 כלתו של רבי ישמעאל מיאנה ובנה על כתיפה רבי חזקיה בשם רבי אבהו רבי יודה ורבי שמעון ורבי
 ישמעאל אמרו דבר אחד תני עד אימתי הבת ממאנת עד שתביא שתי שערות דברי רבי מאיר רבי יודה
 אומר עד שירבה השחור רבי שמעון אומר עד שתתפשט הכף רבי זעורה רבי חייא בשם רבי שמעון בן לקיש
 עד שתתפשט הכף ויהא השחור רבה על הלבן ר' אבהו ר' לעזר בשם ר' הושעיה הלכ' כר' יודן ר' יהושע בן
 לוי אמ' הלכ' כר' יודה

yEvamot 1:1, 2d–3a⁷⁷

The daughter-in-law of Rabbi Yishmael repudiated [her marriage] while her son was on her shoulder. Rabbi Hizqiah [said] in the name of Rabbi Abbahu: Rabbi Yudah and Rabbi Shimon and Rabbi Yishmael said the same [thing]: It is taught: Until when does the girl repudiate? Until she brings two hairs – the words of Rabbi Meir. Rabbi Yudah says: Until the dark is greater. Rabbi Shimon says: Until [the hairs] cover the *mons pubis*. Rabbi Ze'urah, Rabbi Hiyya [said] in the name of Rabbi Shimon ben Laqish: Until [the hairs] cover the *mons pubis* and until the dark [hair] is greater than the light. Rabbi Abbahu, Rabbi Lazar [said] in the name of Rabbi Hoshaiya: Halakhah is like Rabbi Yudan. Rabbi Yehoshua ben Levi said: Halakhah is like Rabbi Yudah. Rabbi Haninah said: Halakhah is like Rabbi Yudah.

This first section brings the case of an attempt of a young woman who has given birth to repudiate her marriage. According to this version she is the daughter-in-law of Rabbi Yishmael. The *amoraim*, later rabbinic sages, present the statement which we examined above from *tNiddah* 6:5–6. After quoting the *baraita*, Rabbi Ze'urah and Rabbi Hiyya state in the name of Rabbi Shimon ben Laqish that both Rabbi Yehudah's sign ('until the dark is greater') and Rabbi Shimon's sign ('until [the hairs] cover the *mons pubis*') are necessary in order to disallow the girl's ability to repudiate her marriage. This position is more lenient than Rabbi Yehudah's position and both are more lenient than Rabbi Meir's position ('two hairs'). Several *amoraim* – Rabbi Abbahu, Rabbi Lazar, Rabbi Hoshaiya, Rabbi Yehoshua ben Levi, Rabbi Haninah – state that the legal position is in accordance with Rabbi Yehuda's statement.

⁷⁶ See Lev 2004; and Fonrobert 2006.

⁷⁷ See the parallels in *ySotah* 2:1, 17d and *yPesahim* 8:1, 35c.

The *sugya* continues with another case which supports Rabbi Yehudah's position.

תלמוד ירושלמי (ונציה) מסכת יבמות פרק א דף ב טור ד /ה"א
 אתא עובד' קומי ר' יסא אמר איזלון לגבי ר' אבהו דאית ליה אולפן הלכ' כר' יודה אנן לית לן אולפן הלכה
 כר' יודה רבי חנינה אמר הלכה כרבי יודה רבי יוחנן אמר לציפורייתא אתון אמרין בשם רבי חנינה הלכה
 כרבי יודה ולית היא כן מאי כדון חברייתא בשם רבי חנינה מודיי רבי יהודה שאם נבעלה משהביאה שתי
 שערות שאין יכולה למאן

yEvamot 1:1, 2d–3a

A case came before Rabbi Yasa. He said: Go to Rabbi Abbahu for he has a tradition [that] halakhah is like Rabbi Yudah. We do not have a tradition [that] halakhah is like Rabbi Yudah. Rabbi Ḥaninah said: Halakhah is like Rabbi Yudah. Rabbi Yoḥanan said to the Sepphoreans: You say in the name of Rabbi Ḥaninah [that] halakhah is like Rabbi Yudah but it is not so. How is it? The colleagues in the name of Rabbi Ḥaninah [said]: Rabbi Yehudah agrees that if she had intercourse from the time that she brought forth two hairs, she is not able to repudiate.

This section of our *sugya* brings another legal case, this one before Rabbi Yasa (Asi in the Bavli) a third generation *amora*. He sends the case to Rabbi Abbahu who has a tradition that the law is according to Rabbi Yehudah (Yudah) but in his own location they do not have that tradition. Rabbi Yoḥanan adds that a condition is put upon the tradition that the law is like Rabbi Yehudah which disallows *me'un* if she had intercourse after she had sprouted two pubic hairs. This means that that act of intercourse would change the status of her rabbinic marriage to one of biblical validity.

The *sugya* continues with amoraic comments about whether a girl who accepts *qiddushin* (marriage) before or after she sprouts two pubic hairs can repudiate the marriage. This section also discusses the likelihood of a girl or an infant surviving depending on whether she conceives before or after she has sprouted two pubic hairs.

תלמוד ירושלמי (ונציה) מסכת יבמות פרק א דף ב-ג טור ד /ה"א
 רבי זעורה בשם רבי חנינה מודיי רבי יודה שאם נתקדש' משהביא' שתי שערות' שאינה יכולה למאן על
 דעתיה דרבי זעורה דאמר נתקדשה משהביאה שתי שערות הא אם נתקדשה עד שלא הביאה שתי שערות
 ונבעלה משהביאה שתי שערות יכולה היא למאן ניהא על דעתין דחבריא דאינון אמרין נבעלה משהביאה
 שתי שערות הא אם נבעלה עד שלא הביאה שתי שערות יכולה היא למאן וזה אימת עיברה וילדה עד שלא
 הביאה שתי שערות וחיה היא לא כן אמר רבי רדיפא רבי יונה בשם רבי אילא איתא עיברה וילדה עד שלא
 הביאה שתי שערות היא [ג ע"א] ובנה מתים משהביאה שתי שערות היא ובנה חיים עיברה עד שלא הביאה
 שתי שערות וילדה משהביאה שתי שערות היא חיה ובנה מת מאי כדון רבי ישמעאל בר' יודה עד שירבה
 שחור כרבי שמעון על תנאי קידוש הראשון ובעל על דעתיה דרבי מאיר ורבי יודה דאמרי בסימנין הדבר
 תלוי ניהא על דעתיה דרבי שמעון דו אמר לכשיסיף בה קניין אחד מעת' אפילו גדולה אמר רבי יצחק וכיני
 אלא כדי שלא יתפרצו בנות ישראל בזימה

yEvamot 1:1, 2d–3a⁷⁸

Rabbi Ze'urah in the name of Rabbi Ḥaninah [said]: Rabbi Yudah agrees that if she accepted *qiddushin* from after she had brought forth two hairs that she is not able to repudiate. Ac-

⁷⁸ See the parallels in ySotah 2:1, 17d and yPesahim 8:1, 35c which discuss Rabbi Yoḥanan's claim that one can designate a sacrifice without knowledge of the person on whose behalf the sac-

cording to the opinion of Rabbi Ze'urah who said: [If] she accepted *qiddushin* from when she brought forth two hairs – behold if she accepted *qiddushin* before she brought forth two hairs and had intercourse from when she brought forth two hairs – she is able to repudiate. This is simple. According to the opinions of the colleagues who say: [If] she had intercourse from when she brought forth two hairs – behold if she had intercourse before she brought forth two hairs – she is able to repudiate. And when is this? She became pregnant and gave birth before she brought forth two hairs. But does she live? Did not Rabbi Redifa, Rabbi Yonah [say] in the name of Rabbi Ila: A woman who became pregnant and gave birth before she brought forth two hairs – she and her child die; [3a] from after she brought forth two hairs – she and her child live; [if] she became pregnant before she brought forth two hairs and gave birth from when she brought forth two hairs – she lives and her child dies. What is this like? Rabbi Yishmael bar Rabbi Yudah⁷⁹ – until the dark is greater, [and] like Rabbi Shimon – on condition of intercourse of the first [rabbinic] acquisition [in mind, she can repudiate].⁸⁰ According to the opinions of Rabbi Meir and Rabbi Yudah who say [that] the matter depends on signs [of development of sexual maturity] – it is simple. According to the opinion of Rabbi Shimon who says: When he shall add an act of acquisition for her. From here, even if she is an adult [she is able to repudiate]. Rabbi Yitzḥaq said and so it is but in order that the daughters of Israel [not seem to] burst forth in licentiousness [it is not allowed].

This next part of the sugya deals with the case of a girl who accepted *qiddushin* (acquisition in marriage) after she had sprouted two pubic hairs. Rabbi Ze'ura in the name of Rabbi Ḥaninah stated that Rabbi Yehudah (Yudah) would not have allowed her to repudiate such a marriage. That only holds if she accepted the *qiddushin* after sprouting two hairs but if she accepted *qiddushin* before she sprouted two hairs, she can still repudiate the marriage. They are seeking a case where she had intercourse before she sprouted two hairs, became pregnant and gave birth. In that case Rabbi Yehudah, Rabbi Shimon and Rabbi Yishmael would all agree. This possibility is questioned by a tradition brought by Rabbi Redifa, Rabbi Yonah, and Rabbi Ila that the girl and the baby would die in that case so how could there be a case of *me'un* with a baby on her shoulder. If she conceived and gave birth as a *qetannah* (before she sprouted two pubic hairs) she and the infant would die or the child would die if she gave birth after sprouting two pubic hairs.⁸¹ Another

rifice is being brought. This refers to the *zav* and *zavah* who have abnormal genital discharges, the parturient woman, and the leper. There is a double problem connected to the minor: can she give birth and survive; and since she had been married she was no longer in her father's legal domain so could her father designate a sacrifice on her behalf.

⁷⁹ This is the reading in Leiden after the erasure: רבי ישמעאל בר' יודה where it was originally written ר' כר and then corrected to בר' according to the Hebrew Language Academy edition. The changes were done by the scribe. Penei Moshe emends the text to רבי ישמעאל בר' יודה.

⁸⁰ According to Rabbi Shimon in tQiddushin 4:4 and yQiddushin 2:6, 62d that one who married in error or with less than a *perutah* or a minor who married and later sends gifts to the bride, she is not married even if she had intercourse with him. This is because the original *qiddushin* were invalid and the sexual acts were on the basis of that invalid *qiddushin*. Only a specifically intended act of acquisition by intercourse after the error had been corrected would validate the marriage.

⁸¹ In yPesahim 7:13, 35c Rabbi Redifa brings this tradition in the name of Rabbi Yonah in the name of Rabbi Ḥunah.

rabbinic opinion, that of Rabbi Shimon, is brought. According to him, in order to change this minor marriage which is only rabbinically valid and can therefore be repudiated to a biblically valid marriage, an additional act of sexual intercourse must be performed with the intention of acquiring the girl biblically. If that was not done, she could still repudiate the marriage even as an adult. The summary of this section is that Rabbi Shimon's position should be the law but in order to prevent possible licentiousness it was not followed. The licentiousness would be due to the possibility that in situations of doubt, she may actually have been biblically married making the *me'un* invalid and then adultery would have been involved.

The final section of this *sugya* relates to another case in which Rabbi Yose posits that an examination of her breast development should be made which parallels pubic hair development according to mNiddah 5:8 and tNiddah 6:4. It also suggests since maidenhood is only six months long, that should be the criterion to decide whether she can repudiate the marriage. In what follows Rabbi Yoḥanan sets limits on this position.

תלמוד ירושלמי (ונציה) מסכת יבמות פרק א דף ג טור ד ה"א
אטייא עובדא קומי רבי יוסי אמר יבדקו דדיה מה כרבי יודה דרבי יודה אמר עד שירבה שחור והוא דאמר
רבי יהושע בן לוי אין בין ימות הנערות לימות הבגרות אלא ששה חדשים בלבד ואמר רבי אבהו בשם רבי
יוחנן אין עושין מעשה הדא דתימר בתוך הזמן אבל לאחר הזמן עושין מעשה ברם הכא ספיק רבה שחור
ספק לא רבה שחור כופו אני ליתן גט רבה השחור אינו נוגע בגט.

yEvamot 1:1, 2d–3a

A case [concerning a girl who repudiated her marriage and it is doubtful whether she was still a *qetanah*] came before Rabbi Yose. He said: They shall check her breasts. What? [Did he rule] like Rabbi Yudah – since Rabbi Yudah said until the dark is greater?! Is it not what Rabbi Yehoshua ben Levi said: There are only six months between maidenhood and adulthood [even if the dark is not yet greater or the hairs fell out]? But Rabbi Abbahu said in the name of Rabbi Yoḥanan: You do not act [on Rabbi Yehudah's position]. That which you say is during that time [before the dark became greater] but after the time [from when the dark became greater] you do act. However, here there is doubt whether the dark is greater or the dark is not greater [and she repudiated her minor marriage] – I force him to give a *get* [in case her repudiation was not valid]. If the dark is greater he does not touch a *get* [that is, he is not forced to divorce her].

The summary of this *sugya* for legal purposes is that Rabbi Yehudah's position seems to be primary. Rabbi Yoḥanan again sets limits about Rabbi Yehudah's position. In a situation of doubt whether the dark was greater, where the girl repudiated the marriage, Rabbi Yoḥanan forces the husband to give a *get*. This essentially reinforces her *me'un* but adds the requirement for divorce.

This long *sugya* emphasizes the disagreement among the sages and how that impacts on the legal decisions. According to Rabbi Yehudah, a girl is allowed to repudiate until the dark is greater. He does agree that if she has had intercourse after the dark is greater, she is no longer allowed to repudiate. This would require that pubic hair growth actually be monitored during marriage. Rabbi Shimon, however, maintains that sexual intercourse after the dark is greater must be an in-

tentional one for marital acquisition in order to create a marriage of biblical validity. Otherwise, her marriage by a guardian in her minority remains in the realm of rabbinic status and may be subject to repudiation even after the dark is greater. This is strong evidence that a few generations of *tannaim* (early rabbinic scholars, from Rabbi Akiva onwards) disagree and have contrary rulings on the issue of a girl repudiating a marriage arranged for her by her guardian. Even Rabbi Akiva's and Rabbi Meir's definitive ruling was not universally accepted in the Land of Israel through until the third generation of amoraim.⁸²

The discussion in bNiddah 52a on mNiddah 6:11, brought below, is an important parallel for our understanding of the sages' relationship to minor marriage and *me'un*.

תלמוד בבלי מסכת נדה דף נב עמוד א
 תינוקת שהביאה כו'. א"ר אבהו א"ר אלעזר: הלכה כרבי יהודה ומודה רבי יהודה שאם נבעלה לאחר שהביאה שתי שערות – שוב אינה יכולה למאן חברוהי דרב כהנא סבור למעבד עובדא כרבי יהודה ואף על גב דנבעלה, אמר להו רב כהנא: לא כך היה מעשה בבתי של רבי ישמעאל שבאת לבית המדרש למאן. ובנה מורכב לה על כתפה, ואותו היום הוזכרו דבריו של רבי ישמעאל בבית המדרש, ובכתה בכייה גדולה בבית המדרש. אמרו: דבר שאמר אותו צדיק יכשל בו זרעו? דאמר רב יהודה אמר שמואל משום רבי ישמעאל: והיא לא נתפשה – אסורה, הא נתפשה – מותרת, ויש לך אחרת, שאע"פ שלא נתפשה – מותרת, ואיזו זו – שקדושיה קדושי טעות, שאע"פ שבנה מורכב על כתפה – ממאנת והולכת לה. וגמנו וגמרו: עד מתי הבת ממאנת – עד שתביא שתי שערות! פרוש ולא עבד עובדא. רבי יצחק ותלמידי דרבי חנינא עבד עובדא כרבי יהודה, ואף על גב דנבעלה. אול רב שמן בר אבא אמרה קמיה דר' יוחנן, אול רבי יוחנן אמרה קמיה דרבי יהודה נשיאה שדר בלשא – ואפקוה.

bNiddah 52a

A girl who brought forth etc. Rabbi Abbahu said Rabbi Elazar said: The halakhah is like Rabbi Yehudah but Rabbi Yehudah agrees that if she had intercourse after she brought forth two [pubic] hairs – she is no longer able to repudiate [a marriage arranged by a guardian]. The colleagues of Rav Kahana thought to rule in a case like Rabbi Yehudah even if she had had intercourse. Rav Kahana said to them: Was it not the case concerning the daughter of Rabbi Yishmael who came to the study house to repudiate [her marriage] and her child was riding on her shoulders. But on that very day they remembered the words of Rabbi Yishmael in the study house, and there was a great weeping in the study house. They said: A matter which that righteous person stated, his seed shall stumble [because of it]? For Rav Yehudah said Shemuel said in the name of Rabbi Yishmael [Numbers 5:13]: *and she was not forced* – she is forbidden; behold if she were forced – she is permitted. And do you have another [case/person] who even though she was not forced she is permitted? And who is it? She whose *qiddushin* (marriage) is *qiddushin* (marriage) in error – that even though her child is riding on her shoulder, she repudiates [the marriage] and carries on. And they voted and decided: until when can a girl repudiate – until she brings forth two hairs! They left and did not rule in the case. Rabbi Yitzḥaq and the students of Rabbi Ḥanina ruled in a case according to Rabbi Yehudah even though she had intercourse [after bringing forth two hairs]. Rav Shemen bar Abba went and said this before Rabbi Yoḥanan. And Rabbi Yoḥanan went and said this before Rabbi Yehudah Nesiah who sent a troop and took her away [from the man she had subsequently married].

⁸² There were also disputes during the geonic period on this topic. See Meacham's discussion in Meacham and Frenkel 1998, 33–38 and 138–149.

According to the source above, Rabbi Abbahu and Rabbi Elazar, the colleagues of Rav Kahana, and Rabbi Yitzḥaq and the students of Rabbi Ḥanina were all in favor of Rabbi Yehudah's ruling but were discouraged from making the ruling or their ruling was overturned by Rabbi Yehudah Nesiah, the grandson of Rabbi Yehudah the Patriarch. It is possible that in light of the variety of opinions, different rulings were made in different places.

A slightly different version of tNiddah 6:5 is found in bNiddah 52b.

תלמוד בבלי מסכת נדה דף נב עמוד ב
 ת"ר, עד מתי הבת ממאנת? עד שתביא שתי שערות – דברי רבי מאיר, ר' יהודה אומר: עד שירבה השחור, רבי יוסי אומר: עד שתקיף העטרה, בן שלקות אומר: עד שתכלכל. ואמר רבי שמעון, מצאני חנינא בן חכנאי בצידן ואמר: כשאתה מגיע אצל ר"ע אמור לו עד מתי הבת ממאנת? אם יאמר לך עד שתביא שתי שערות, אמור לו והלא בן שלקות העיד במעמד כולכם ביבנה עד שתכלכל, ולא אמרתם לו דבר! כשבאתי אצל רבי עקיבא, אמר לי: כלכול זה – איני יודע מהו, בן שלקות – איני מכיר, עד מתי הבת ממאנת – עד שתביא ב' שערות.

bNiddah 52b

The sages taught [in a *baraita*]: Until when can the girl repudiate [a marriage arranged by a guardian]? Until she brings forth two hairs – [these are] the words of Rabbi Meir. Rabbi Yehudah says: Until the dark shall become the majority.⁸³ Rabbi Yose says: Until the crown [of pubic hairs] surrounds. Ben Shalqut says: Until there is much [hair]/it forms a crown [of hair]. But Rabbi Shimon said: I found Ḥanina ben Ḥakhinai in Tzedan and he said: When you get to Rabbi Akiva say to him, until when does the girl repudiate? And if he says to you until she brings forth two hairs, say to him: did not Ben Shalqut testify in the presence of all of them in Yavneh – until she has much [hair]/forms a crown [of hair], and you [pl.] did not say anything to him. When I came to Rabbi Akiva [and said this], he said to me: This having much [hair]/forming a crown – I do not know what it is. Ben Shalqut I do not recognize. Until when does the girl repudiate? Until she brings forth two hairs.

Rabbi Akiva's decision is reflected in Rabbi Meir's position in mNiddah 6:11. The great variety of opinions and even attempts to give contrary rulings to the regnant position suggests that determining when a girl could no longer repudiate a minor marriage arranged by a guardian was a process which happened over a number of generations. Rabbi Akiva died in 135 CE and Rabbi Yehudah Nesia (Patriarch in Aramaic) was the grandson of Rabbi Yehudah the Patriarch acted on Rabbi Akiva's opinion a hundred years later or some five to six generations later.

One of the parallels with our *baraita* on three women who use a contraceptive absorbent brings up a different point of view concerning the possibility of a minor conceiving. We find the following discussion in bYevamot 12b immediately after our *baraita* is quoted. It should be noted that just as in the other parallels in the Bavli, Rabbi Meir's position does not include *coitus interruptus*. Rather the question, 'Who is a minor?' and its answer, 'eleven years and a day until twelve years and a day. Less than that or more than that – she has intercourse in the normal

⁸³ Both Munich 95 and Vatican III add "over the light."

manner and carries on' are considered the words of Rabbi Meir. The *baraita* has a doubling of the word שמא in reference to the *qetanah*.

תלמוד בבלי מסכת יבמות דף יב עמוד ב-י"ג עמוד א
מדקאמר שמא תתעבר ושמא תמות, מכלל דאיכא קטנה דמיעברא ולא מתה, א"כ, מצינו חמותו ממאנת, ותנן: אי אתה יכול לומר בחמותו ואם חמותו ואם חמיו שנמצאו אילונית או שמיאנו! אימא: שמא תתעבר ותמות, דאמר רבה בר ליואי: גבול יש לה, קודם הזמן הזה – אינה מתעברת כל עיקר, תוך הזמן הזה – היא מתה ועוברת מת, לאחר זמן הזה – היא חיה ועוברת חי. איני? והא תני רבה בר שמואל: אי אתה יכול לומר בחמותו ואם חמותו ואם חמיו שנמצאו אילונית או שמיאנו, שכבר ילדו! אלא, לעולם שמא תתעבר ושמא תמות, ואלא קשיא הך! אמר רב ספרא: בנים הרי הם כסימנים. ואית דאמרי: בנים עדיפי מסימנים. למאי נפקא מינה? דאפילו לרבי יהודה, דאמר: עד שירבה השחור, בבנים מודה. [דף יג עמוד א] ורב זביד אמר: אין בנים בלא סימנים. ונבדוק! חיישינן שמא נשרו. הניחא למ"ד חוששין, אלא למ"ד אין חוששין מאי איכא למימר? אפי' למ"ד אין חוששין, משום צער לידה חיישינן.

bYevamot 12b–13a

From that which is said 'lest she conceive and lest she die' implies that there is a *qetanah* who does conceive and does not die. If so, we find [a case that] a mother-in-law repudiates a marriage [and gives birth as a minor]! But we taught in the Mishnah 'you are not able to say concerning his mother-in-law and the mother of his mother-in-law and the mother of his father-in-law that they were found to be *ailonit* or that they repudiated the marriage! Say, 'lest she conceive and die.' For Rabbah bar Livai⁸⁴ said: [The *qetanah*] has a limit. Before this time [eleven years and a day] – she does not conceive at all; during this time [from eleven years and a day to twelve years] – [if she conceives and gives birth] she dies and her fetus dies; after this time [from twelve years and a day], she lives and her fetus lives. Is that so?! Behold Rabbah bar Shemuel taught [in a *baraita*]: you cannot say concerning his mother-in-law and the mother of his mother-in-law and the mother of his father-in-law with they were found to be *ailonit* or that they repudiated [the marriage] because they already gave birth. Rather [the *baraita* is] 'lest she conceive and lest she die.' But rather it is difficult [for a minor who gave birth not to be allowed to repudiate]! Rav Safra said: Behold children are like signs [of puberty]. And some say:⁸⁵ Children are better than signs [of puberty]. What difference does this make? Even Rabbi Yehudah who said, 'until the black is greater,' agrees concerning children [that she can no longer repudiate a marriage]. [13a] And Rav Zevid says: There are no children [born] without [the mother showing puberty] signs. Let us examine [the girl for signs of puberty]. We suspect that [the pubic hairs] fell out. That is simple for one who said 'we suspect' but for one who said 'we do not suspect' what is there to say? Even for the one who says 'we do not suspect' because of the pain of birth we do suspect [that her pubic hair fell out].

This text concedes that a girl between eleven years and a day and twelve years can conceive and give birth and that both she and the infant can survive. This is in dispute with the end of mYevamot 1:1 which maintains that a mother-in-law or her mother or the mother of the father-in-law could not have repudiated their marriage. Rav Safra considers the birth of a child to be accounted as a sign of pu-

⁸⁴ This is the reading in Vatican 110–111 but Munich 95 and Oxford: Heb. D. 20/1–25+ have Rava bar Levi.

⁸⁵ This is the reading in Vatican 110–111 but Munich 95 and Oxford: Heb. D. 20/1–25+ have "Others say Rav Safra said: children are better than signs."

berty. The Talmud then suggests that Rabbi Yehudah would also agree that a girl who gave birth, even though she had not achieved the age of maidenhood (twelve years and a day), would no longer be able to repudiate a marriage. Rav Zevid claims that a girl cannot give birth unless she has signs of puberty. This would eliminate the necessity of examinations of the girl's genital area for pubic hair growth.

Rav Zevid's position in this *sugya* makes a good deal of sense in terms of *realia*. Usually a girl reaches menarche some time in late Stage III or in Stage IV of Tanner's stages of development. As noted above, ovulation often does not become established for several months after that. The most likely scenario is that the girl was married off as a minor by a guardian. Pubic hair growth was not monitored. At some point prior to attaining the age of twelve years and a day, she experienced menarche (or was in that very small minority of girls who ovulate before menarche), conceived, and later gave birth. This seems to be a case of precocious puberty in rabbinic terms, that is, she was sufficiently physically mature to conceive and give birth but had not reached the age of maidenhood. A similar case exists for a boy of nine years and a day who acquired his deceased childless brother's widow by intercourse but is unable to divorce her until he reaches thirteen years and a day and has pubic hair (mNiddah 5:5). This is also the case if a minor boy married before the age of thirteen years and a day and fathered a child. Although he was considered physically an adult, he did not have legal majority and could not divorce her until he had attained the age of legal majority.

According to the rabbinic sages there were two systems of achieving legal majority. One was through physical signs (mNiddah 5:8; 6:11), as we have seen above, and one was age-based (mNiddah 5:6). Full legal majority requires both age and signs. It may have been the case that the majority of girls who reach the age of twelve years and a day had sprouted two pubic hairs. The situation of a girl who had reached that age but had not yet sprouted two pubic hairs could be adjudicated by making legal assumptions that she had indeed sprouted two pubic hairs without examination or by making an examination and in the absence of pubic hairs suspecting that they had fallen out. Alternatively, once the existence of two pubic hairs was established, even after twelve years and a day, there would be six months between that time and legal majority. Since physical maturation is a function not only of age and genetics but also of nutrition, it is likely that there were many cases outside this age limit about which legal questions would have to be addressed.

4. Other Sources for Marriage of Minor Girls

We have a significant number of tannaitic sources which relate to marriage of a pre-pubertal girl.⁸⁶ Here are some examples beginning with one of the most problematic legal statements in rabbinic literature.

משנה מסכת נדה פרק ה משנה ד
 בת שלש שנים ויום אחד מתקדשת בביאה ואם בא עליה יבם קנאה וחייבין עליה משום אשת איש ומטמאה
 את בועלה לטמא משכב תחתון כעליון נשאת לכהן תאכל בתרומה בא עליה אחד מן הפסולים פסלה מן
 הכהונה בא עליה אחד מכל העריות האמורות בתורה מומתין על ידה והיא פטור' פחות מכן כנותן אצבע
 בעין:

mNiddah 5:4

A girl of three years and a day may be married by intercourse. And if her *yavam*, levirate husband, had intercourse with her [at that age], he has acquired her. And they are liable on account of her because [she is] a married woman and she causes impurity to the one who has intercourse with her to make the bottom mattress impure as the top mattress. [If] she was married to a priest – she shall eat *terumah*. [If] one of those unfit males have intercourse with her, she is unfit [to marry into the] priesthood. If one of the forbidden sexual connections stated in the Torah had intercourse with her, they are executed because of her and she is exempt. Less than this [three years of age], it is like placing a finger in the eye.

It is very difficult for us to imagine that such young girls were acquired in marriage through sexual intercourse or enjoying sexual intercourse.⁸⁷ This text seems to be legally legitimizing pedophilia as the girl is still in the category of “the smallest of the small.” The most charitable reading we can give such abhorrent texts is that very young girls were acquired in marriage, perhaps due to dire economic conditions, and learned to serve their husbands in household matters and when the girl was somewhat older, marriages were consummated.⁸⁸ This might parallel the situation of a man who sold his daughter into slavery (Exodus 21:7–11) with the understanding that her service in the household would come in lieu of her dowry but that she would either marry the man who purchased her or his son. If they go back on such an agreement she is released from slavery. Such a charitable reading verges on apologetics because these texts establish the legality of marital pedophilia. It is possible that this low age of three years and a day may simply empha-

⁸⁶ It should be noted that according to mYevamot 13:2, a girl who was married off by her guardian without her consent need not even repudiate the marriage. Rabbi Ḥaninah ben Antigonus states that she must be sufficiently mature in order to guard an object given to acquire her in marriage. Rabbi Eliezer says that her action has no legal consequence and she should be treated as a seduced girl.

⁸⁷ See Lev 2017 who attempts to find ways to deal with abhorrent texts without abandoning the corpus in which they are found.

⁸⁸ There is an example of this in yYevamot 13:2, 13c where the mother of Rabbi Eliezer pushed him to marry his sister's daughter. He urged his niece to find someone to marry but she wanted only Rabbi Eliezer. He married her but did not have sexual relations until she had sprouted two pubic hairs. This may have been an unusual situation or an attempt to strengthen Rabbi Eliezer's reputation. We cannot see this as the norm.

size the father's legal right over his daughter of this age.⁸⁹ She is at the stage of no longer "needing her mother" because she is toilet trained and weaned. According to bEruvin 82a a boy no longer needs his mother if he can clean himself after a bowel movement and does not call his mother if suddenly awoken from sleep and this may be at the age of four or five.

There is no way to glean statistics from Talmudic literature so we cannot be certain what the impact these legal texts had on normative practice. Elsewhere I have suggested that the most common age for marriage was during the girl's maidenhood both as an attempt to protect her virginity⁹⁰ by marrying her off quite young and allowing the father to benefit financially from her marriage as he had the right to accept *qiddushin* on her behalf. Sexual intercourse at this age between twelve years and a day and twelve years six months and a day with the sprouting of two pubic hairs should still be considered pedophilia especially since most girls are not sexually mature. The sprouting of pubic hairs, however, can come well before menarche meaning that her body is not physiologically ready for sexual penetration.

The following text relates to the marriage of a girl prior to sprouting two pubic hairs (*qetanah*), of a girl who has sprouted two pubic hairs (most likely a *na'arah* but no age is given) and of a girl who has already begun to menstruate. It is unusual for menarche to occur during Tanner's Stage III and is more common in Stage IV with the greater proliferation of pubic hair.

משנה מסכת נדה פרק י משנה א
תינוקת שלא הגיע זמנה לראות וניסת בש"א נותנין לה ד' לילות ובה"א עד שתחיה המכה הגיע זמנה
לראות וניסת בש"א נותנין לה לילה הראשון ובה"א עד מוצאי שבת ד' לילות ראתה ועודה בבית אביה
בש"א נותנין לה בעילת מצוה ובה"א כל הלילה כולה:

mNiddah 10:1

A girl whose time has not come to see [menstrual blood]: Beit Shammai says: [They] give her four nights [for intercourse without considering her ritually impure due to blood]. But Beit Hillel say: Until the [hymeneal or vagina] wound heals. [A girl] whose time has come

⁸⁹ I am grateful to Monika Amsler who made this suggestion to me at the annual conference of the European Association of Biblical Studies (EABS) that was held 2015 in Córdoba.

⁹⁰ See Meacham 2019. Deuteronomy 22:13–21 describes the biblical expectations of marriage in reference to virginity, that is, that there would be physical signs that the hymen was removed – bloodstained bedding. Rosenberg 2018 suggests that the biblical model idealized sexual violence towards women with the idea that penetration should be vigorous and violent enough to produce blood on the wedding night. However, it should be noted that girls who had not reached full sexual maturity but were sexually penetrated during their maidenhood would most likely bleed from vaginal tears and not simply the removal of the hymen. Rosenberg identifies a more moderate view taken by Babylonian rabbis to deemphasize male sexual violence and rely on a subjective assessment about an "open door" to yield gentler sexuality. Whether the biblical version or this gentler view constituted normative practice remains a question. Undheim 2018 examines the spiritual constructions and reconstructions of virginity in Christianity as opposed to its more physical definitions among Roman pagans. Lillis 2017 focuses on the various conceptualizations of virginity in the Mediterranean and Near Eastern regions and demonstrates that not all virginity was hymeneal. See also the PhD dissertation in progress of Rebecca Kamholz at Yale. I am grateful to Lennart Lehmhaus for these references.

to see [menstrual blood] and is married: Beit Shammai says: [They] give her one night. But Beit Hillel says: Until the Sabbath goes out – four nights. [If] she saw [menstrual blood] and was still in the house of her father: Beit Shammai says: [They] give her the act of intercourse of the mitzvah. But Beit Hillel say: All the night is hers [for repeated acts of intercourse].

This source seems to indicate that marriage generally occurred around puberty. The girl whose time has come to see blood is probably a *na'arah* who has reached the age of twelve years and a day and has brought forth two pubic hairs. Above mNiddah 10:1 begins with a case of girl who has not reached this stage of development. Nevertheless, Beit Shammai and Beit Hillel disagree over how often she can have intercourse without suspecting that the blood she sees be due to the sudden onset of menstruation. The second case is one of a *na'arah* who is at the stage of development considered suitable for menarche and the third case is one of a girl who already menstruated before she was married. Since virgins had twelve months to prepare their trousseau, it is possible that a date for the marriage was set with the expectation that a girl would reach rabbinic puberty during that time. We may have evidence biblically that that concern existed.

שיר השירים פרק ח
(ח) אַחֲוֹת לָנוּ קִטְנָה וְשָׂדִים אֵין לָהּ מִה־נִּנְעָשָׂה לְאַחֲתָנוּ בַּיּוֹם שֶׁיִּדְבַּר-בָּהּ:

Song of Songs 8:8

We have a small sister but she has no breasts; what shall we do for our sister in the day in which she shall be spoken for?

Because there were economic considerations, it is likely that the marriage was carried through and may or may not have been consummated.

From these sources, it is clear that child marriage was not uncommon and such marriages were sometimes, and possibly more frequently, sexually consummated. The stage of the appearance of two pubic hairs is generally many months before menarche. The question then becomes: Is it physiologically possible for a pre-menarchal girl to become pregnant? Normally, the first several cycles of menstruation are anovulatory. During the first year after menarche, 80 % of the cycles are anovulatory (without ovulation). In the third year after menarche, 50 % of the cycles are ovulatory.⁹¹ So is pregnancy even possible before menarche? Was this part of our *baraita* on three women who use contraception reflecting reality at all?

Apparently, yes! There must always be consideration given to the minority of cases. A very small percentage of girls do ovulate before menarche. Just as women who are lactating generally ovulate before they resume their periods, this very low

⁹¹ See Apter 1980. In the anovulatory cycles the levels of testosterone, androstenedione and luteinizing hormone were higher in the anovulatory cycles than the ovulatory ones. It should be noted that this study was done in Finland where both the population group and climate are significantly different from the Mediterranean often resulting in a much later onset of menarche.

percentage of girls can ovulate before menarche. If they are married prior to having sprouted two pubic hairs, there is an expectation of sexual relations. We may consider such sexual relations abusive but in rabbinic society, as in many societies throughout the world even today, sex with children especially in a marital situation is permitted.

Are there any cases in the Talmud that demonstrate pregnancy of a minor similar to the situation as we had with Yehudah and Hizzqiah which attests to superfetation? There may be one, the attempt of the daughter or daughter-in-law of Rabbi Yishmael to repudiate a marriage arranged by a guardian. She comes to the court with her child on her shoulder but is this a case of pregnancy of a minor?

Clearly, the issue was fraught with difficulties. As we would expect, women normally did the examination for the presence or absence of pubic hairs in girls before and after the *pereq* but not during the *pereq*. The *pereq* is the girl's twelfth year, that is, from eleven years and a day until twelve years and a day. Rabbi Shimon allows women to examine girls during the *pereq* but could only testify to a stringent position. For example, according to tNiddah 6:8 women could say the girl has two pubic hairs in order to disqualify her from *me'un* or they could say that she does not have two pubic hairs in order to disqualify her from *halitzah*. The specifications in mNiddah 6:12 about whether the hairs were long enough to bend the tip to the root [= Rabbi Yishmael] or to be cut by fingernails [= Rabbi Elazar] or scissors [= Rabbi Akiva] required an even more thorough examination of the girl's pubic area – obviously not a comfortable situation for the rabbinic court or for the girl.

We find in mNiddah 5:7 a metaphor concerning female development likened to the development of a fig: *pagah* -unripe is a minor; *bohel* – ripening is a *na'arah*; and *tzemel*⁹² - ripened fig is an adult. In mNiddah 5:8 there are various descriptions of what constitutes the “upper sign”: when a wrinkle appears beneath the breast [= Rabbi Yose HaGalili], when the breasts incline [= Rabbi Akiva], when the nipple darkens [= ben Azai], when the nipple sinks when pressure is applied [= Rabbi Yose]. The parallel in tNiddah 6:4 and its parallel in bNiddah 47ab have different descriptions: when the breasts strike each other [= Rabbi Elazar bar Rabbi Tzadoq], when the top of the nipple darkens [= Rabbi Yoḥanan ben Beroqa], when the crown [areola] encircles [= Rabbi Yose], and when the *mons* flattens [= Rabbi Shimon]. We find the position of various sages concerning the “upper sign” of breast development, that is, what stage of breast development parallels pubic hair development. The text in tNiddah 6:4 ends as follows:

תוספתא מסכת נדה (צוקרמאנדל) ר' ד' ...
וכן היה ר' שמעון אומר כשם שאמרו שלשה סימנים מלמעלה כך אמרו שלשה מלמטה פגה מלמעלה לא
הביאה סמנין מלמטה כוחל מלמעלה הביא סימנין מלמטה צמיל מלמעלה פשטה את הכף מלמטה:

⁹² The vocalization in the Kaufman manuscript and the Parma B manuscript is *tzamal* but the vocalization in modern texts and modern Hebrew is *tzemel*.

tNiddah 6:4

And so would Rabbi Shimon say: Just as they said there are three signs from above, so they said there are three signs from below: *pagah* from above – she did not bring signs from below; *bohel*⁹³ from above – she brought signs from below; *tzemel*⁹⁴ from above – [the hairs] have spread over the *mons* from below.

According to mNiddah 5:7 the *pagah* is the unripe girl who did not have two pubic hairs, that is, she is a *qetanah*. The *bohel* is a ripening girl in her maidenhood. In both of these legal categories her father has a right to whatever she finds, her handiwork, and cancellation of her vows as well as the money given for her *qiddushin*. The *tzemel* is a ripe girl, that is, a legal adult (*bogeret*) whose father does not have legal domain over her. If she is unmarried, the *bogeret* has legal rights to whatever she finds, for her handiwork and for the money of her *qiddushin*. She also has the responsibility to fulfill her own vows. The version in bNiddah 47b is more specific about what the signs are.

תלמוד בבלי מסכת נדה דף מז עמוד ב
וכן היה רבי שמעון (בן יוחי) אומר: שלשה סימנים נתנו חכמים באשה מלמטה, וכנגדן מלמעלה. פגה מלמעלה – בידוע שלא הביאה שתי שערות, בוחל מלמעלה – בידוע שהביאה שתי שערות, צמל מלמעלה – בידוע שנתמעך הכף.

bNiddah 47b

And so would Rabbi Shimon (ben Yoḥai)⁹⁵ say: The Sages gave three signs from below and [there are three] from above: *pagah* from above – it is known that she did not bring forth two [pubic] hairs from below; *bohel*⁹⁶ from above – it is known that she brought forth two [pubic] hairs; *tzemel*⁹⁷ from above – it is known that the *mons pubis* has flattened.

It should be noted that the fat pad under the *mons pubis* actually accumulates fat as the girl matures in order to cushion the pubic bone during sexual relations.⁹⁸ This text suggests the opposite case.

According to tNiddah 6:9 the court in Yavneh relied on the status of breast development which had its parallel in pubic hair development and physical signs in the pubis.⁹⁹ Needless to say, many situations of doubt were created by inconsistency between the upper and lower signs. Examinations by women who could only do examinations at certain times or who were allowed to give only restrictive

⁹³ The manuscripts of the Mishnah have *bohel* rather than *kohel* as it appears in the Bar Ilan database.

⁹⁴ The spelling צמיל could be vocalized *tzemel*, *tzemil*, *tzemeil*, etc.

⁹⁵ Munich 95, Vatican III, Vatican II3, and Vatican ebr. 487/1 all have Rabbi Shimon ben Yoḥai which is also the reading in Venice, Soncino and Vilna. In Vilna it is bracketed for erasure.

⁹⁶ The manuscripts of the Mishnah have *bohel* rather than *kohel* as it appears in the Bar Ilan database.

⁹⁷ The spelling צמיל could be vocalized *tzemel*, *tzemil*, *tzemeil*, etc.

⁹⁸ See above note 72.

⁹⁹ See mNiddah 6:12, tNiddah 6:12, and bNiddah 52b.

responses at other times, and by issues of modesty in reference to examination by male rabbis all created confusion.

The parallel in bNiddah 52a brought above has some differences. It is the daughter of Rabbi Yishmael and not his daughter-in-law. Rabbi Yishmael is quoted as saying that only in a situation of non-consensual intercourse (rape) with a man other than her husband is a woman permitted to return to her husband [unless he is a priest]. This was applied by the rabbis to mean that in the case of the girl wanting to repudiate the marriage which a guardian had arranged while she was a minor. Since she had had intercourse after she had sprouted two pubic hairs, the marriage achieved biblical validity and therefore could not be repudiated. The Talmud does not mention whether she was a willing party to this sexual act but assumes that she was. Although there was great weeping in house of study that the daughter of a great man should be humbled by his own words, they refused to allow her to repudiate her marriage. If, however, a condition had been attached to the rabbinic marriage that had not been fulfilled or canceled, she was allowed to repudiate the marriage even with her child sitting on her shoulder. That, however, is neither the standard case of minor marriage nor the normal usage of *me'un*.

The critical six months of 'maidenhood' between minority and adulthood, that is, between twelve years and a day and twelve years and six months and a day, is addressed here. When she has sprouted two pubic hairs and attained the age of twelve years and a day, the period of her maidenhood, *na'arut*, begins and continues for six months. During those six months, it was expected that more pubic hair would sprout and possibly even experience menarche, a more accurate sign of physiological adulthood.¹⁰⁰ If the girl is married prior to menarche and the marriage is consummated, her ability to conceive at that time would only depend on whether she is among the small minority of girls who ovulate before menarche or begin ovulating shortly thereafter. Intercourse after sprouting two pubic hairs may have been considered consensual simply because the girl was married. The issue of the girl's consent was irrelevant in a marriage of biblical stature because her father spoke on her behalf. In a marriage of rabbinic status, the girl's consent became an issue which is why repudiation of marriage was possible. In a marriage of biblical validity, a girl could theoretically refuse to consent to intercourse but may enter the category of rebellious wife, *moredet*.

Nearly all cases of very early pregnancy are connected with precocious puberty in medical literature.¹⁰¹ One full-term birth recorded in 1893 refers to a

¹⁰⁰ In Islamic law, repudiation of marriage cannot happen until a girl has had her first period, a genuine sign of at least physiological adulthood.

¹⁰¹ A medical dictionary published in 1823 mentions a girl at the age of eleven years and others even younger who gave birth in Paris during the French Revolution. A case in Luxembourg of a girl of eight years and ten months delivered a mole containing a dead fetus in 1877; another of a nine-year-old German girl who aborted in the fourth month of pregnancy; a girl born in

girl less than fourteen years of age who had no pubic hair or breast development and who had not yet menstruated.¹⁰² The accounts of very young mothers in the media often relate to the fact that they were victims of rape, sometimes by family members and sometimes by outsiders.

It seems from several classical Jewish sources that uterine bleeding of minor girls, that is, girls who have not reached the time in which pubic hair would be considered a sign of *na'arut*, is not considered a sign of legal majority. For example, tNiddah 1:8–9 relates to the purity status of the girl who had not yet reached the stage that she would be expected to see menstrual blood but does not relate to her legal status. Similarly, tNiddah 3:1 relates to bloodstains of a girl otherwise considered too young to see menstrual blood. The stains are not considered ritually impure. Girls who have not reached their *pereq* are considered to be in a state of ritual purity according to tNiddah 5:4. We see in mNiddah 5:3 and in tNiddah 5:14 that the sages recognized perinatal menstrual bleeding but only related to it in terms of ritual impurity. These sources, which mention uterine bleeding in minors, do not relate to the upper signs of breast development make the possibility of precocious puberty less likely.¹⁰³ Similarly, hairs that sprout in the pubis before a particular age are not considered signs of puberty. Girls could be examined for pubic hairs prior to reaching eleven years and a day so that if hairs were found, they could be attributed to a mole rather than to sexual development.¹⁰⁴ There are legal presumptions made about their status as minors. Similarly, there are presumptions made about girls' status as adults if they have reached the age of twelve years and a day because they do not need to be examined. Rava maintains that this presumption is valid to prohibit *me'un* but an actual examination is necessary for

1751 who gave birth in 1759 in Switzerland and a girl of nine years and eight months who birthed the full term living infant. She had been menstruating since the age of twelve months. These cases were reported in Miscellany in *Journal of American Medical Association* 31 (July 2, 1898): 42 and was apparently excerpted from *Lancet* of April 23, 1898. The youngest mother recorded is Lina Medina who gave birth by Caesarean section to a living child at the age of five years and seven months. She had regular periods by the age of three years. See Shearman 1985, 401. Keane 1933, records the birth of a seven-year-old mother. Dodd 1881, reports the birth of a girl on August 8, 1871 who began to menstruate at the age of twelve months at first with intervals of 4 to 6 weeks and then regularly every three weeks. At the age of nine years and five months she gave birth to a female child. At the time she had abundant pubic hair growth and large breasts. Curtis 1863, reports a pregnancy conceived about three weeks before the girl's tenth birthday. She had had one or two menstrual periods before conception and gave birth to a viable child. MacNamara 1873, reported the birth of a child to a mother of ten years and six months in Calcutta. There are no details about the girl's sexual development before conception. Gleaves 1895, reports a girl of ten years and two months giving birth to a child who lived for one week. The girl had menstruated regularly from the age of five but did not have other secondary sexual characteristics. Several other cases are reported in newspapers but without verification in medical publications.

¹⁰² See Rood 1898. M. D. Hilda L Keane (Keane 1933) records a birth to a seven-year-old mother. The girl had not yet menstruated before giving birth by Cesarean section.

¹⁰³ See, for example, tNiddah 1:8–9 and bNiddah 9b and 10b.

¹⁰⁴ See, for example, bNiddah 48b.

halitzah.¹⁰⁵ Should the girl between the ages of eleven years and a day and twelve years and a day be among the women who use a contraceptive absorbent (*mokh*)? Is pregnancy at all likely at that age? Was Rabbi Yishmael's daughter or daughter-in-law a case of pre-menarchal pregnancy? A possibility does exist that she was married as a minor and ovulated before menarche. We see in *yNiddah* 1:3, 49a the following discussion of a girl who is considered a virgin in reference to menstruation, that is, that she has not yet menstruated. The text relates to the possibility of conception and birth before menarche.

תלמוד ירושלמי (ונציה) מסכת נדה פרק א דף מט טור א/ה"ג
... ואפילו נישאת ואפילו עיבירה ואפילו מיניקה ואפילו שופעת כל שבועה לזכר וכל ארבעה עשר לנקיבה
וקסמא בידיה בשעה שהוא זכר שבועה ובשעה שהיא נקיבה י"ד והיא שהפסיקה דם טוהר כהדא דתני
הפסיקה דם טוהר ולא ראת ואחר כך ראת ובא מעשה לפני חכמים ואמרו דייה שעתה

yNiddah 1:3, 49a

... And even if she married and even if she became pregnant and even if she nurses and even if she bleeds all of seven days for a male and all of fourteen days for a female and the divin-
ing rod is in her hands – when it is a male – seven, and when it is a female – fourteen. And
she who stopped [seeing] blood of purification and did not see [menstrual] blood and after
that she did see [uterine blood] and the case came before the sages and they said: Her time
[of seeing blood] is sufficient for her [impurity to begin].

This text deals with the “virgin of blood,” that is a girl who has not yet begun to menstruate. This status is retained even if she conceives and gives birth. Only after she actually begins to menstruate does she leave the category of “virgin of blood.” Is this a hypothetical situation or does it reflect the rare possibility of a premenar-
chal girl giving birth?

5. Parallel Cultures

Was minor marriage a common phenomenon in the Middle East and Mediter-
ranean during the rabbinic era? According to the *Institutes of Justinian* Tit. XXII
a girl was ready for marriage at age twelve. Boys were released from tutelage at
age fourteen and were to undergo a physical examination to demonstrate their
physical maturity. Such an examination was considered immodest and inappro-
priate for girls. What the actual practice was in Italy is not known. The consensus
is that girls married at about age fourteen but aristocratic girls may have married
from the age of twelve.¹⁰⁶ We do have the account in *bNiddah* 45a that Justina the
daughter of Asveros son of Antigonus married at six and gave birth at seven. It is
unclear whether this account is simply to denigrate Romans and their sexuality or
is an account of precocious puberty.

¹⁰⁵ Ibid.

¹⁰⁶ See Hopkins 1965, especially 313 and note 22.

Brent Shaw, on the basis of epigraphical data on tombstones, maintains that it is unlikely that there were large numbers of girls married under the age of fifteen.¹⁰⁷ He does note that this evidence can only yield tentative conclusions. Roger S. Bagnall and Bruce Frier claim in their demographic studies of Roman Egypt that marriage of girls began at age twelve (8 %) and by age fifteen 25 % were married and by twenty 65 % were married.¹⁰⁸ Urban populations and elite sectors of the population may be overrepresented in these demographic and epigraphical studies. Literary and medical sources may also be skewed to the elite. Economic factors are critical in discussions of age of marriage, particularly if there is financial benefit for one person over another at any particular age. In rabbinic sources for example, the father benefits financially if he marries off his daughter while she is a minor or a maiden while the daughter would benefit if she had reached her legal majority.¹⁰⁹

Yishai Kiel posits that the statement about those who “play with children,” that is have non-procreative sexual relations with young girls, delay the coming of the Messiah (bNiddah 13b and parallels in bYevamot 62a, 63b and bAvodah Zarah 5a). Kiel interprets Rabbi Asi’s statement in the context of Manichaean sexual practices. The Manichaean doctrine of redemption of all souls (Living Soul) includes removing souls which are imprisoned in Matter, that is, in the body. For those Manichaeans who were unable to remain celibate, sexual relations with girls who were not able to procreate was a solution.¹¹⁰ Rabbi Asi condemns that practice on moral grounds and in theological terms but not in law. The legal age of majority in Zoroastrian law is fifteen years. If she has not been married off by her guardian by that age, she can leave that household and find a spouse. A relatively late 9th-10th century Palavi text states that it is not permitted to marry off a daughter who is not yet nine years of age. But from age nine she may be married off.¹¹¹

There is also evidence to the contrary. Rav (or Rabbi Elazar) in bQiddushin 41a states, “a man is forbidden to marry off his minor daughter until she matures and says, ‘I want to marry so-and-so.’ This is advice that never achieves legal status.

6. Conclusions

The purpose of this contribution was to clarify whether all three categories of women in our *baraita* reflect reality or are merely hypothetical discussions. Ample textual evidence for the marriage of minor girls exists in Talmudic literature. Our

¹⁰⁷ Shaw 1987.

¹⁰⁸ Bagnall and Frier 2006, from the table on p. 113.

¹⁰⁹ The above is a short summary of part of Meacham 2019.

¹¹⁰ Kiel 2019.

¹¹¹ I am grateful to Dr. Nima Jamali for this information on Zoroastrian law. See Williams 1990.

baraita itself deals with the practical ramifications of sexual intercourse with a minor girl and attempts to mitigate the repercussions. Of the three women in the *baraita*, lactating women very frequently conceive unless they use contraception. The long separation between the birth of Yehudah and Hizqiah affirms the possibility of superfetation. Disparity in weight of twins could have led rabbinic sages to be concerned with that possibility. The possibility of superfetation has been demonstrated medically. It might be more common in women with uterus didelphys. The most difficult case mentioned is that of the minor girl (*qetanah*) – could she become pregnant? At least five generations of rabbinic sages disputed the stage of pubic hair development required to prohibit a girl from repudiating a marriage arranged by her guardian. In a normal betrothal sequence of events there might have been time for a girl between the ages of eleven and a day until twelve and a day to develop secondary sexual characteristics. It would be rare that she developed sufficiently to ovulate and conceive. She could have either been in the very tiny minority of girls who ovulate before menarche or she could have begun to menstruate before she reached the age where she would be considered legally a maiden (*na'arah*). It is also possible that if a girl were married as a minor, no one was examining her stage of pubic hair development. In light of well-documented cases of girls giving birth prior to reaching the age of twelve years and a day and the frequency of marriage of minor girls, the sages' concern about the safety of the married minor was more than warranted.

In my opinion, these texts reflect real situations even if rare.¹¹² The number and type of legal texts and the few court cases involved demonstrate that these rabbinic texts can be a useful source for history of medicine. The sources discussed in this contribution give credence to all the categories mentioned in our *baraita* of three women who use contraception, including the minor. The purpose of the *baraita* was to protect the minor girl from a dangerous pregnancy, protect an established pregnancy from the possibility of superfetation, and to protect a nursing infant from the danger of malnutrition.

The texts involving sexual intercourse with very young girls are extremely problematic. What do we do with texts which embed the possibility of pedophilia in law? Girls who reach the age of twelve and a day and sprout two pubic hairs are not physically ready for sexual penetration. Intercourse would likely have been painful and injurious. There was the expectation that the vaginal wound would not heal for prolonged periods of time. The physical and psychological repercussions could have been even more severe. The sages' concern in our *baraita* was for the girl's survival not the quality of her sexual relations. This rather uncaring attitude for her welfare may have been because the sages simply attribute to females

¹¹² Prof. Samuel Kottak in his lecture at European Association for Jewish Studies Conference, Paris, July 2014 maintained that an unusual medical situation may be referenced very frequently because of its uniqueness.

a male experience of sexual pleasure. Hence in their minds, sexual intercourse in the context of marriage intercourse is not harmful and likely pleasurable. They did recognize the possible injurious element but remained more concerned with the ritual purity aspects and legal status of the sexual acts than the effects of the injury on the girl. In my opinion, we should relate to these texts as texts of violence. Holding on to the idea that Jewish law can and does improve, child marriage in Judaism has become exceptionally rare.

Bibliography

- Adams, James N. 1982. *The Latin Sexual Vocabulary*. Baltimore: Johns Hopkins University Press.
- Apter, Dan. 1980. "Serum Steroids and Pituitary Hormones in Female Puberty: A Partly Longitudinal Study." *Clinical Endocrinology* 12,2: 107–120.
- Bagnal, Roger S. and Bruce Frier. 2006. *The Demography of Roman Egypt*. Cambridge: Cambridge University Press.
- Baker, Cynthia M. 2002. *Rebuilding the House of Israel: Architectures of Gender in Jewish Antiquity*. Stanford, CA: Stanford University Press.
- Bisel, Sara C. and Jane F. Bisel. 2002. "Health and Nutrition at Herculaneum: And Examination of Human Skeletal Remains." In *The Natural History of Pompeii*. Edited by Wilhelmina F. Jashemski and Frederick G. Meyer. Cambridge: Cambridge University Press. Pages 451–475.
- Blickstein, Isaac. 2003. "Superfecundation and superfetation: lessons from the past on early human development." *The Journal of Maternal-Fetal and Neonatal Medicine* 14: 217–219.
- Butler, Judith. 2004. *Undoing Gender*. New York and London: Routledge.
- Butler, Judith. 2006. *"Gender Regulations" and Gender Trouble: Feminism and the Subversion of Identity*. New York and London: Routledge.
- Carolli, Guillermo et al. 2011. *WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Health Outcomes Among Adolescents in Developing Countries*. Geneva: World Health Organization.
- Chan, Yu Y., Kannamannadiar Jayaprakasan, Javier Zamora, Jim G. Thornton, Nicholas Raine-Fenning, and Arri Coomarasamy. 2011. "The prevalence of congenital uterine anomalies in unselected and high-risk populations: a systematic review." *Human Reproduction Update* 17,6: 761–771.
- Cozzolino, Mauro, Viola Seravalli, Giulia Masini, Lucia Pasquini, and Mariarosario Di Tommaso. 2015. "Delayed-Interval Delivery in Dichorionic Twin Pregnancies: Single-Center Experience." *Ochsner Journal* 15,3: 248–250.
- Curtis, Josiah. 1863. "A Girl Age 10 Years, Eight Months, and Seven Days Delivered of a Healthy Child at Full Term of Pregnancy." *Boston Medical and Surgical Journal* 68,3: 49–51.
- Dal Bo, Federico. 2021. "A Foetus Shaped Like a Sandal: Birth Anomalies in Talmudic Tractate Niddah." In *Defining Jewish Medicine? Transfers of Medical Knowledge in Premodern Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz, Pages 93–118.

- Daw, Edward G. 1992. "Fetus Vanescens, Fetus Compressus and Fetus Papyraceus." *Journal of Obstetrics and Gynecology* 12,6: 375–376.
- Dodd, Henry. 1881. "Remarkable Case of Early Maternity." *Canadian Journal of Medical Science* 6: 151.
- Feldman, David. 1968. *Birth Control and Jewish Law: Marital Relations, Contraception, and Abortion as set forth in the classic texts of Jewish Law*. New York: New York University Press. Repr. Northvale, NJ: Jason Aronson, 1998.
- Finkelstein, Barukh. 2009. "The Method of Igrot Moshe in Classification of common Contraceptive Devices." *Assia* 85–86: 89–101. Repr. in *Reality and Medicine in Seder Nahsim*. Edited by Mordekhai Halperin. Jerusalem: Schlesinger Institute, 2010. Pages 249–261. (Hebrew)
- Fonrobert, Charlotte E. 2000. *Menstrual Purity: Rabbinic and Christian Reconstructions of Biblical Gender*. Stanford: Stanford University Press.
- Fonrobert, Charlotte E. 2006. "The Semiotics of the Sexed Body in Early Halakhic Discourse." *Closed and Open: Readings of Rabbinic Texts*. Edited by Matthew Kraus. Piscataway, NJ: Gorgias Press. Pages 69–96.
- Fraser, Alison M., John E. Brocket, and R. H. Ward. 1995. "Association of Young Maternal Age with Adverse Reproductive Outcomes." *New England Journal of Medicine* 332,17: 1113–1117.
- Gleaves, C. W. 1895. "A Young Mother." *Medical Record* 48: 715.
- Green, Shirley. 1971. *The Curious History of Contraception*. London: Ebury Press.
- Halperin, Mordekhai. 2006. "Diaphragm – The Opinion of the Gaon Rabbi S. Z. Aurbach," *Assia* 87–88: 136–154. Republished in *Reality and Medicine in Seder Nahsim*. Edited by Mordekhai Halperin. Jerusalem: Schlesinger Institute, 2010. Pages 232–248. (Hebrew)
- Hauptman, Judith. 1998. *Rereading the Rabbis: A Woman's Voice*. Boulder, CO: Westview Press.
- Himes, Norman E. 1963. *Medical History of Contraception*. New York: St. Martin Press.
- Honore, Louis H. and K. G. Nickerson. 1977. "Combined intrauterine and tubal ectopic pregnancy: a possible case of superfetation." *American Journal of Obstetrics & Gynecology* 127: 885–887.
- Hopkins, Morris Keith. 1965. "The Age of Roman Girls at Marriage." *Population Studies*, 18:3: 309–327.
- Ilan, Tal. 1997. *Mine and Yours Are Hers: Retrieving Women's History from Rabbinic Literature*. Leiden: Brill.
- Ir-Shai, Ronit. 2012. *Fertility and Jewish Law: Feminist Perspectives on Orthodox Responsa Literature*. Waltham, MA: Brandeis University Press.
- Keane, Hilda L. 1933. "A Case of Maternity at Seven Years of Age." *British Medical Journal* 2: 567.
- Kiel, Yishai. 2019. "'Playing with Children': Talmudic Polemic against Manichaean Sexual Ethics." *Jewish Law Association Studies* 28: 112–136.
- King, Helen. 1995. "Medical Texts as a Source for Women's History." In *The Greek World*. Edited by Anton Powell. London and New York: Routledge 199–218.
- King, Helen. 1986. "Agnodice and the Profession of Medicine." *Proceedings of the Cambridge Philological Society* 32: 53–77.
- King, Helen. 2001. *Greek and Roman Medicine*. London: Bristol Classical Press.
- King, Helen. 2007. *Midwifery, Obstetrics and the Rise of Gynecology*. Aldershot, UK: Ashgate Publishing Limited.

- Kirbas, Ayse, Hacer C. Gulerman, and Korkut Daglar. 2016. "Pregnancy in Adolescence: Is It an Obstetrical Risk?" *Journal of Pediatric and Adolescent Gynecology* 29,4: 367–371.
- Kobayashi, Fuminori, Norimasa Sagawa, Ikuo Konishi, Yoko Tsuruta, Hiroshi Fujiwara and Takahide Mori. 1996. "Spontaneous conception and intrauterine pregnancy in a symptomatic missed abortion of ectopic pregnancy conceived in the previous cycle." *Human Reproduction* 11: 1347–1349.
- Kottek, Samuel and Gerhard Baader. 2000. "Talmudic and Greco-Roman Data on Pregnancy: A Renewed Examination." In *From Athens to Jerusalem: Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel Kottek and Manfred Horstmanshoff. Rotterdam: Erasmus Publishing. Pages 83–98.
- Lauwers, Judith, and Debbie Shinskie. 2000. *Counseling to the Nursing Mother: The Lactation Consultants Reference*. Sudbury, MA: Jones and Bartlett Publishers.
- Lawrence, Ruth A., and Robert M. Lawrence. 1999. *Breastfeeding: A Guide for the Medical Profession*. Toronto: Mosby.
- Lev, Sarra. 2004. "Genital Trouble: The Figure of the Eunuch in Rabbinical Literature and the Surrounding Cultures of the Period." Ph.D. diss., New York University.
- Lev, Sarra. 2017 "Dipping Finger in Honey: Sense Making in the Face of Violent Texts." In *Sexual Violence and Sacred Texts*. Edited by Amy Kalmanofsky. Carmel, IN: Dog Ear Publishing. Pages 53–74.
- Lieberman, Saul. 1939. *Tosefet Rishonim*. Jerusalem: Bamberger and Wahrmann Publishers.
- Lillis, Julia K. 2017. "Virgin Territory: Configuring Female Virginity in Early Christianity." Ph.D. diss., Duke University.
- Lowe, James S., and Peter G. Anderson. 2015. "The Female Reproductive System." In *Stevens and Lowe Human Histology*. Maryland Heights, MO: Mosby Publishing. Pages 337–372.
- MacNamara, Coleen. 1873. "A Young Mother." *The Indian Medical Gazette* 7: 295.
- Mashiach, Shlomo, Zion Ben-Raphael, Jehoshua Dor, and David M. Serr. 1981. "Triplet pregnancy in uterus didelphys with delivery interval of 72 days." *Obstet Gynecol.* 58,4: 519–521.
- Meacham, Tirzah. 1989. "Mishnah Tractate Niddah with Introduction – A Critical Edition with Notes on Variants, Commentary, Redaction and Chapters in Legal History and Realia." Ph.D. diss., The Hebrew University. (Hebrew)
- Meacham, Tirzah. 1992. "Fetal Death in the Palestinian Talmud: Murder in the Chamber." In *Death and Taxes in the Ancient Near East*. Edited by Sara E. Orel. Toronto: Mellon Press, 145–156.
- Meacham, Tirzah. 2000. "Halakhic Limitations on the Use of Slaves in Medical Examinations." In *From Athens to Jerusalem. Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel S. Kottek and Manfred Horstmanshoff. Rotterdam: Erasmus. Pages 33–48.
- Meacham, Tirzah. 2014. "Male-Female Sexuality in Early Judaism." In *The Oxford Encyclopedia of the Bible and Gender Studies*. Edited by Julia M. O'Brien. Oxford: Oxford University Press.
- Meacham, Tirzah. 2019. "Marital Age in Jewish Law – Conflicts between Halakhah and Civil Law." *Jewish Law Association Studies* 28: 137–160.
- Meacham, Tirzah and Miriam Frenkel. 1998. *Sefer haBagrut leRav Shmuel ben Hofni Gaon veSefer haShanim leRav Yehudah ben Yosef Rosh haSeder*. Jerusalem: Yad haRav Nissim.
- Moscone, Sherrill R., and Mary J. Moore. 1993. "Breast-feeding during pregnancy." *Journal of Human Lactation* 9: 83–89.

- Neis, Rafael Rachel. 2017. "The Reproduction of Species: Humans, Animals and Species Nonconformity in Early Rabbinic Science." *Jewish Studies Quarterly* 24: 289–317.
- Neis, Rafael Rachel. 2018a. "When Species Meet in the Mishna." *Ancient Jew Review*. Forum on Animals/Species. Cited 1 July 2019. Online: <https://www.ancient-jewreview.com/articles/2018/5/8/when-species-meet-in-the-mishnah>.
- Neis, Rafael Rachel. 2018b. "Flesh." In *Frankel Institute Annual 2018: 9–11*. Cited 1 July 2019. Online: https://www.academia.edu/41856843/Fetus_Flesh_Food_Generating_Bodies_of_Knowledge_in_Rabbinic_Science.
- Neis, Rafael Rachel. 2019a. "Interspecies and Cross-species Generation. Limits and Potentialities in Tannaitic Reproductive Science." In *Strength to Strength: Essays in Honor of Shaye J. D. Cohen*. Edited by Michael S. Satlow. Providence, RI: Brown Judaic Studies. Pages 309–328.
- Neis, Rafael Rachel. 2019b. "Fetus, Flesh, Food: Generating Bodies of Knowledge in Rabbinic Science." *Journal of Ancient Judaism* 10,2: 181–210.
- Newton, N. and M. Theotokatos. 1979. "Breast-feeding during pregnancy in 503 women: does psychobiological weaning mechanism exist in humans?" In *Emotion and Reproduction*. Edited by L. Zichella. London: Academic Press. Pages 845–849.
- Novick, Tzvi. 2010. *What Is Good and What God Demands*. Leiden: Brill.
- Peskowitz, Miriam. 1997. *Spinning Fantasies: Rabbis, Gender, and History*. Berkeley, CA: University of California Press.
- Preuss, Julius. 1978. *Biblical and Talmudic Medicine*. Translated by Fred Rosner. New York: Sanhedrin Press.
- Qatan, Yoel. 2006. "An Introduction to the Question of Permission of a Diaphragm for Contraception." *Assia* 87–88: 124–135. Republished in *Reality and Medicine in Seder Nahsim*. Edited by Mordekhai Halperin. Jerusalem: Schlesinger Institute, 2010. Pages 213–220. (Hebrew)
- Roellig, Kathleen, Brandon Menzies, Thomas Hilderbrandt, and Frank Goeritz. 2011. "The concept of superfetation: a critical review on a 'myth' in mammalian reproduction." *Biological Reviews* 86: 77–95.
- Rood, L. Drakely. 1898. "Correspondence." *Journal of American Medical Association* 31,3: 139.
- Rosenberg, Michael. 2018. *Signs of Virginity: Testing Virgins and Making Men in Late Antiquity*. New York: Cambridge University Press.
- Shaw, Brent D. 1987. "The Age of Roman Girls at Marriage: Some Reconsiderations." *Journal of Roman Studies* 77: 30–46.
- Shearman, Rodney P. 1985. *Clinical Reproductive Endocrinology*. London: Churchill Livingstone.
- Singhal, Savita R. Umbar Agarwal, Damyanti Sharma, Jyotsna Sen. 2003. "Superfetation in uterus pseudo didelphys: an unreported event." *Archives of Gynecology & Obstetrics* 268: 243–244.
- Tarín, Juan J., Miguel A. García-Pérez, Carlos Hermenegildo, and Antonio Cano. 2013. "Unpredicted Ovulation's and Conceptions during Early Pregnancy: An Explanatory Mechanism of Human Superfetation." *Reproduction, Fertility and Development* 25: 1012–1019.
- Tilley, Ian B., Omar Mamdouh Shaaban, Melissa L. Wilson, Anna Glasier. 2009. "Breast-feeding and contraception use among women with unplanned pregnancies less than two years after delivery." *International Journal of Gynecology and Obstetrics* 105: 127–130.
- Undheim, Sissel. 2018. *Borderline Virginites: Sacred and Secular Virgins in Late Antiquity*. New York: Routledge.

- Weeks, Andrew D. 2008. "The Retained Placenta." *Best Practice and Research Clinical Obstetrics and Gynecology* 22,6: 1103–1117.
- Wegner, Judith Romney. 1988. *Chattel or Person: The Status of Women in Mishnah*. New York: Oxford University Press.
- Williams, Alan. V., ed. and trans. 1990. *The Pahlavi Rivāyat Accompanying the Dādestān Ī Dēnīg*. Copenhagen: Munksgard.
- Wolf, Jacqueline H. 2001. *Don't Kill Your Baby: Public Health and the Decline of Breastfeeding in the Nineteenth and Twentieth Centuries*. Columbus: Ohio State University Press.
- World Health Organization. 1983. "Breast-feeding and Fertility Regulation: Current Knowledge and Program Policy Implications." *Bulletin of the World Health Organization* 61,3: 371–382.
- Youssef, Henry. 1993. "The History of the Condom." *Journal of the Royal Society of Medicine* 86,4: 226–228.

IV. Silenced Voices and Objectified Bodies – Women as Practitioners and Practices Applied to Women's Bodies

Goats or Babies?!

The Teachings by Abaye's Mother in b. Šabbat 134a and the Relationship between Veterinary and Human Medicine in the Talmud

MONIKA AMSLER

ABSTRACT: The Mishnah mentions en passant measures taken to treat the wound that results from the circumcision of an eight-day-old boy. The Babylonian Talmud appends a list of anomalies that can occur in newborn babies as well as eight treatments for those anomalies. A literary-critical analysis of the passage shows that five of these eight recipes seem to be genuine medical recipes that apply to newborns in general. Of these five, at least one is more meaningfully understood in the context of medical recipes for small cattle. This raises the question of the relationship between veterinary and human medicine in late antiquity in general, and in the Talmud in particular. A preliminary investigation shows that a conscious conflation of therapies is unlikely because veterinary and human medicine were kept strictly apart. Therefore, either the five recipes were excerpted from a veterinary treatise, or the recipe was written by someone who thought newborn cattle and babies were comparable in nature. In any event, the recipes concerning anomalies in newborn humans or, maybe, small cattle, are distinctive among late antique medical writings.

Starting with the Hippocratics as a first written testimony, Greek and Latin writers expose the idea that a newborn's viability should be examined before rearing.¹ Viability according to Roman authors included juridical acceptance of the child by its father, as well as matching the requirements of a physical inspection.² These physical examinations may be the reason why health deficiencies in newborns are not addressed in Greek and Roman treatises. Rather, diseases mentioned as occurring in children also concern adults – pain in the ear, inflammation of glands and convulsions (Hippocratics and Galen), heated fever, and general symptoms such as cough and diarrhea (Soranus).³ Birth defects are not an issue.

¹ Following the Hippocratics, this view is also expressed in Soranus. The same idea is expressed by Cicero, Seneca, and implicitly also by Tacitus, see Etienne 1973, 15–16.

² On the conditions for legally accepting or rejecting a child according to Roman law, see further Hirt 2004, 284–285.

³ Etienne 1973, 41. To these indications found in the Hippocratics and Galen, as well as Soranus, the recipe book in the *Syriac Book of Medicine* adds the cures for the child who is swollen and yellow (Budge 1976, 679) and for one who eats dust or dirt (Budge 1976, 673).

It is therefore remarkable that the Babylonian Talmud (hereafter Talmud), in tractate Shabbat (Šabbat) 134a, provides a list with treatments for seven conditions that may threaten a newborn's life: a closed anus, inability to suckle, a baby who does not cry/breathe, one who is small/thin, one who is bloated, and one who is red or yellow. Although Roman legislation permits the killing only of monstrously deformed babies, the complete absence of such indications in Roman medical treatises is conspicuous.⁴ This picture seems to converge with Tacitus's polemical remark that the Judeans were so eager to multiply that they would even rear children born in the *agnatus* state, that is a child "born after the father had made his will, or one that was not desired."⁵ By way of inference, one might conclude that the Judeans also reared children that would not have passed a first physical inspection. Because of the distinctive nature of the talmudic recipes among late antique medical writings and within the Babylonian Talmud, their critical analysis is an important contribution to the history of medicine, as well as to the study of medical recipes within the Talmud.⁶

The Textual Context of the List

The Talmud is a compilation of various sources structured as a commentary around the Mishnah, a second-century compilation of mostly rabbinic case law. To define an independent source in the Talmud, the attempt undertaken in the present article, an investigation into the literary genealogy is necessary.

The mishnaic lemma that stands at the beginning of the passage involving the list of recipes for the sickly newborn is part of a mishnaic dictum (also referred to as *a* mishnah). The latter is concerned with the preparations for a circumcision that falls on a Sabbath. Because circumcision must be performed on the eighth day after birth (according to Genesis 17:12), some of the required actions may be against the rules governing Shabbat. The clarification of this issue necessitates a detailed discussion and weighting of the tasks involved in a circumcision. Although the law of circumcision overrules the prohibition of cutting on a Sabbath, for example, items for the post-circumcision treatment must be prepared in advance. The mishnaic dictum therefore states permitted and prohibited tasks for this particular case. It further addresses the case in which someone forgot to prepare an item required for the post-circumcision treatment of the wound.

We may do everything necessary for a circumcision (on a Sabbath): circumcise and uncover (the corona), suck (the blood out of the wound) and place a poultice (איספלינית)

⁴ On Roman legislation regarding deformed children, see Hirt 2004, 290–291.

⁵ Moore and Jackson 1931, 183 n. 1. The passage is found in Tacitus, *Historiae*, book V, § 5.

⁶ The singular nature of this "anthology on infant care" within the Talmud has already been pointed out by Fonrobert 2000, 155.

and cumin upon it. If one did not pestle (the cumin) on the Sabbath eve, one may chew it with one's teeth and place it (upon the wound). If one did not vigorously mix wine and oil on the Sabbath eve, they should be applied each by itself. And one may not start to make a bandage in the shape of an undershirt (חלוק), but one may wrap a piece of cloth around it. If one did not prepare (a piece of cloth) on the Sabbath eve one may wrap (such a piece of cloth) around one's finger and bring it, even from another property (m. Šabbat 19:2).⁷

Because pestling and shaking are forbidden on a Shabbat, the Mishnah suggests chewing the cumin and applying wine and oil separately. Another forbidden act is carrying something from one property to another. The dictum therefore suggests carrying the bandage to cover the circumcised member as if it were a bandage for one's own finger in case nobody had prepared one on the day before. For the present purpose, however, it is the description of the postcircumcision treatment and not these leeways that is relevant.

According to this description, the blood is squeezed (or sucked) out of the wound after the cutting of the foreskin. Subsequently, a poultice is applied, called *ispalnit* (איספלניט). The term is a calque from Greek *splēnion*, "bandage."⁸ Yet, the *ispalnit* refers here clearly to a poultice and not to a bandage made from cloth. This can be inferred from the stated components of the *ispalnit*, wine, oil, and pestled cumin, while the actual bandage is described as "shirt-like" and referred to as *haluq*.⁹

The treatment of the circumcised member resembles the one for the cut umbilicus as described by Soranus of Ephesus (first century CE) in his work *Gynaecology*. Soranus similarly recommends the cleaning of the wound from blood and notes that it should be treated with oil.¹⁰ He does not, however, mention wine, and he even cautions against cumin: "And to the umbilicus one must apply a little piece of lint soaked in oil, or a piece of wool, but must reject cumin since it is pungent."¹¹ Soranus's remark shows that the application of cumin to the freshly cut umbilical cord was performed by certain people.¹² The treatment of the wound as suggested in the Mishnah therefore seems to have been much the same as the one applied to the cut umbilical cord.

⁷ The translations in this article are mine unless indicated otherwise. Variants of the texts in important manuscripts are indicated in footnotes and cited according to the Lieberman database.

⁸ See Hüttenmeister 2004, 434 n. 52, and Kottke 1996, 2926–2927, who refers to *ispalnit* as a compress.

⁹ For a list of all poultices (Latin *eplastr*) known to Celsus in the first century CE, see Celsus, *De Medicina*, book V, 19.

¹⁰ Temkin 1956, 81 (Soranus, *Gynaecology* II, 7).

¹¹ Translation follows Temkin 1956, 84 (Soranus, *Gynaecology* II, 7–8).

¹² Throughout his work, Soranus seems to be in conversation with other practitioners (also midwives), whose habits he dismisses or adapts; see Jackson 1988, 88–89.

The Attribution of the Recipes to Abaye's Mother

The recipes added in the Talmud to the discussion of the above mishnah are attributed to the mother of the sage Abaye (traditionally dated to the late third–and early fourth century CE).¹³ Late antique rabbinic literature, such as the Mishnah, the Tosefta, and the Palestinian and Babylonian Talmuds, is characterized by the habit of attributing concise statements (*sententiae*) to rabbinic sages. In the same vein, medical recipes are often attributed to a certain authority, too. Scholarship is, however, divided about the identity of Abaye's mother, which warrants some theoretical observations before proceeding to the recipes themselves.

The list in b. Šabbat 134a is not the only instance in which the Talmud attributes knowledge to Abaye's mother. Knowledge attributed to her generally concerns health, female matters, education, gossip and, here, care for the sickly newborn.¹⁴ On an initial (and somewhat biased) read it may appear that these topics can be placed into the female domain of the division of labor. Against the idea of a distinct "female knowledge" in the Talmud, however, stands the fact that much more knowledge about the female body or female responsibilities is attributed to men.¹⁵ The same is true for Greek and Latin medical literature of the time. Then again, while all surviving late antique gynecological treatises were written by men, they often refer to and depend on the practices and knowledge of midwives. Although this knowledge is sometimes badly reviewed, the fact indicates that both sexes were engaged in and concerned with the task of a healthy delivery.¹⁶ Indeed, Roman sources point to various possible male engagements in the process of parturition. These included assistance in cases in which physical strength was needed, the procuring of necessary tools or *materia medica*, as well as taking part in the preparations for the birth. Such activities were "by no means inappropriate concerns for doctors or for men of the household."¹⁷ It may therefore be assumed that preparations for a circumcision were not solely the concern of women. Indeed, neither the Mishnah nor the Palestinian Talmud mention a woman in relation to the prescriptions for how to treat the wound. Thus, the mere fact that the Babylon-

¹³ Stemberger 2011, 110.

¹⁴ On health, see b. Šabbat 66b; b. Giṭṭin 67b; b. Giṭṭin 70a. On female matters, see b. Ketubbot 39b. On education, see b. Yoma 78b; b. Ketubbot 50a. On gossip, see b. Yebamot 25a par b. Mo'ed Qaṭan 18b. And on care for the sickly newborn, see b. Šabbat 134a.

¹⁵ See, e. g., Eidelman 2006 on human lactation in the Talmud.

¹⁶ See the evidence discussed in King 1998, 176–180. While, Soranus's attitude toward midwives was rather critical, the Hippocratics adopted an attitude of trust: "The care of the newborn seems to have fallen largely to midwives: *Diseases* IV.54 says that women administer *pharmaka* to infants as soon as they are born to expel the feces and widen the intestines" (Dean-Jones 2013, 110).

¹⁷ Hanson 1994, 170. King 1998, 172–176, cautions that ancient sources should be read in light of ongoing contentions between midwives and doctors from the early modern period to the present.

ian Talmud attributes these recipes to a woman should not lead to hasty conclusions about the division of labor in rabbinic households in Sasanid Mesopotamia.

Scholarly doubts about the identity of the indicated source of these recipes have also been raised by her identification as Abaye's mother. These latter concerns are based on a statement in b. Qiddušin 31b, where it is said that Rabbi Yoḥanan never saw his parents because his father died after his mother's conception, and his mother died while giving birth. The text continues as follows: "So it happened to Abaye. But is not Abaye the one who said 'Mother told me'? That was his foster mother" (b. Qiddušin 31b).¹⁸ Because Abaye appears to only have had a foster mother, Tal Ilan suggests that the Aramaic word for mother in the passage under discussion, *im* (אִם), should be read as a personal name and understood as the personal name Em, a female friend of Abaye.¹⁹ This, however, would not explain the instances in which another teacher, Ravina, also cites this "Em" (b. Beraḳot 39b and b. Menahot 68b) as someone who told him about the teachings of his late father. In this case a translation with "mother" is much more probable, and it seems inconclusive to assume that it would be different in the case of Abaye.

Markham Geller, who considers the content of the traditions too technical to be in the possession of a mother or female, has proposed another solution to the problem.²⁰ He reads the Aramaic word *im* (אִם) as a reference not to Abaye's mother but to the *ummānu*, an Akkadian title for a scholar.²¹ In Babylonian Aramaic, however, the cognate *ummana* became the term used for bloodletters and circumcisers who seemed to have acquired a bad reputation (see b. Baba Batra 21a–b and b. Qiddušin 82a, but then again b. Ta'anit 21a–b). According to Geller's thesis, the teachings by the honorable Abaye, which he had learned from an indigenous Mesopotamian *ummānu*, were attributed by the compilers of the Babylonia Talmud to his mother (אִם) instead of the unpleasant *ummana* (אִמְנָא).

Given these questions and the general uncertainty about the historical reliability of talmudic attributions, it may be safer to differentiate between the actual recipes and the ascribed tradent when tracing their origin. For the latter purpose, redactional – or, rather, compilatory – inconsistencies have to be taken into account, such as abrupt changes in language, style, vocabulary, and, of course, content.

¹⁸ Looking at the passage in b. Qiddušin 31b from a redaction-critical point of view, however, it should be object that, at least in one other case (b. Pesahim 112b), a story with a Palestinian sage as protagonist (similar to Rabbi Yoḥanan in b. Qiddušin 31b) is told twice, the second time featuring the Babylonian sage Abaye. The insertion "and so it happened to Abaye" might therefore simply be part of a "Babylonization" of Palestinian traditions. Moreover, in the parallel passage in the Palestinian Talmud (y. Qiddušin, 1.7), the fate of having lost both parents before and during birth is ascribed to Rabbi Abun. Any historical reliability of the statement must thereby be questioned.

¹⁹ Ilan 2006, 239 n. 83.

²⁰ See Geller 2004, 8.

²¹ See also "*ummiānu(m)*: 1. craftsman, specialist ... 2. scholar, scribal expert, (royal) (chief) scribe" in Black et al. 2000, 422.

Content and Form of the List of Treatments for the Newborn

The Babylonian Talmud's commentaries on mishnaic lemmas are rarely commentaries in the sense of a clarification of the lemma's meaning. Rather, they seem to take the lemma as the point of departure for a thorough investigation into every possible aspect of the topic. Thus, the list with recipes for the treatment of a sickly newborn is added to the following lemma from the mishnah discussed above: "And one may not start to make a bandage in the shape of an undershirt, etc."²² Because relevant material is processed associatively, the commentary starts with an instruction on how to make such a shirt-like bandage and proceeds to the already mentioned treatments of sickly newborns in general, before returning to the topic of circumcision again.

- (1.) Abaye said: Mother told me: The knot of the newborn's bandage (חלוק האי) should be made on the back, (for) a thread of it may stick (to the wound) and when (the day) comes when (the bandage is removed) the (boy's) urethra is harmed.²³ (1.2.) (Therefore) Abaye's mother made a half-(sewn) pocket (כיסתא).²⁴
- (2.) Abaye said: Mother told me: The newborn (האי ינוקא) who does not have a shirt-like bandage (חלוק): One should bring a rag for him that has a hem and wrap the hem around at its end and double it over upward.
- (3.) Abaye said: Mother told me: The newborn (האי ינוקא) whose anus is not discernible:²⁵ One should pour oil over it and hold it opposite the sun.²⁶ Where (the skin) is transparent, one shall tear it open crosswise with a barley-corn.²⁷ But not with a metal instrument, because of (the danger of) inflammation.²⁸
- (4.) And Abaye said: Mother told me: The newborn (האי ינוקא) who does not suckle: it is undercooled because its mouth is cold. *What is its remedy?* One should bring a bowl

²² The Palestinian Talmud, on the other hand, focuses on the transport of the forgotten bandage from one property to another and adds here the same commentary as 'Erubin, chapter 6.

²³ The word I have translated here as "urethra" is שפכה; s. v. שפכי, "gutters, drainpipes" in Sokoloff 2002, 1171.

²⁴ A pocket or bag used for the phylacteries or fodder; see Sokoloff 2002, 577 (#1 and #2). While it may be assumed that the Aramaic term *kista* (כיסתא) is a translation of the Hebrew *haluq* mentioned in the Mishnah (as in Sokoloff 2002, 577 #3), it is also not uncommon that stories appended to medical recipes (as eyewitness testimonies of their efficacy) differ from the actual recipe and thereby allow for an even further individualized perspective. Recipes therefore often state alternatives themselves in order to enable a choice according to one's personal resources, e. g., in b. Giṭṭin 68b–70a. Examples of case stories that adapt recipes can be found in b. Šabbat 109b; b. Šabbat 110b or b. Giṭṭin 69b.

²⁵ Sokoloff 2002, 697–698 renders מפקנא as "exit, anus." The manuscripts, however, write מפקתא, which Sokoloff 2002, 697–698, renders as "excrement." However, because the cure indicates piercing, a translation of מפקתא as "anus" seems to be preferable here. Mss. Oxford and Vatican add the prepositions בִּי (Ms. Oxford) and בִּיה (Ms. Vatican) and should be translated as "(For) the newborn on whom its anus (excrement) is not discernible."

²⁶ For the expression להדי יומא, see Sokoloff 2002, 530.

²⁷ Jastrow 1926, 1610 renders שעורה with "panicle, barley, barley-corn."

²⁸ The meaning of "to inflame" for זרף is likely but uncertain; see Sokoloff 2002, 422.

with live coals and hold it opposite its mouth so that the mouth becomes warm and it can suckle.²⁹

- (5.) And Abaye said: Mother told me: The newborn (האי ינוקא) who does not cry (מערי):³⁰ One should bring the afterbirth (סליתא)³¹ of the mother and glide it over it and it will cry.³²
- (6.) And Abaye said: Mother told me: The newborn (האי ינוקא) who does not breathe/pass water:³³ One should ... (לינפפיה)³⁴ with/in ... (בנפאותא)³⁵ [conventionally translated as fan him with a fan]³⁶ and it will breathe/pass water.
- (7.) And Abaye said: Mother told me: The newborn (האי ינוקא) who is small: One should bring the afterbirth of the mother and glide it over it from the thin part to the thick part. And if it is stout from the thick part to the thin part.
- (8.) And Abaye said: Mother told me: The newborn (האי ינוקא) who is red because the blood has not yet been absorbed³⁷ in it: One should wait until the blood has been absorbed in it and then circumcise it. If it is yellow: Its blood does not yet circulate³⁸ properly. One should wait until its blood circulates properly and then circumcise him.

For it was taught: Rabbi Natan said: Once I went to visit the fortified cities of the sea. And a woman came before me who had her first son circumcised and he died, the second and he died. (But) the third she now brought before me. I saw that he was red. I said to her: "Wait until his blood is absorbed in him." She waited until his blood was absorbed in him and (only) then had him circumcised. And he lived! And they named him 'Natan the Babylonian' after me. Another time I went to the province of Cappadocia. And a woman came before me who had her first son circumcised and he died, the second and he died. (But) the third she now brought before me. I saw that he was yellow. I looked closely at him and I didn't see any blood of the covenant in him. I said to her: "Wait until his blood circulates." She waited until his blood circulated in him and (only) then had him circumcised. And he lived! And they named him 'Natan the Babylonian' after me. (b. Šabbat 134a)

Recipes 1 and 2 refer directly to the bandage of undershirt-like form, the *ḥaluq* (חלוק), mentioned in the Mishnah. The next five recipes are unrelated to the topic

²⁹ This recipe appears in a different order in Ms. Munich 95, where it marks the end of the list.

³⁰ Sokoloff 2002, 847.

³¹ On סליתא, "afterbirth," see Jastrow 1926, 995 and Sokoloff 2002, 804. The Akkadian term for the afterbirth is *silitu* but has as such also the meaning of "amniotic sac"; see Stol 2000, 144.

³² Sokoloff 2002, 1182 suggests "and smear it over it." Considering the next passage, where the very same expression (עילויא ולישרקיה) is used, the meaning "to glide," indicating a movement in a certain direction, is much more probable. Ms. Moscow Guenzburg 1337–1339 renders this and the next recipe in reversed order.

³³ Uncertain: מנשתיה (Vilna) would mean "to breathe" if understood as derived from שותם but "to pass water" if derived from שתן. The verb is conjugated differently in every manuscript: מנשתי (Soncino), מנשתין (Munich), מנשׁא (St. Petersburg), and מיתנשים (Moskau-Guenzburg). The use in b. Šabbat 134a is a *hapax legomenon*; see Sokoloff 2002, 780 and Jastrow 1926, 942.

³⁴ Jastrow 1926, 925. The spellings of Mss. Soncino, Munich, and St. Petersburg agree with Ms. Vilna.

³⁵ Jastrow 1926, 925. Soncino: נפאות; Munich: נפפא; St. Petersburg: נפפיתא.

³⁶ Thus Jastrow 1926, 925. But see now Sokoloff 2002, 763.

³⁷ Literally "swallowed"; see Sokoloff 2002, 221.

³⁸ For this meaning of נפל, see Sokoloff 2002, 762 (16.b.).

of circumcision, but relate to each other by way of common introduction and structure: “for the newborn who (האי ינוקא)” + indication + cure.³⁹

Lists – ancient as well as new ones – tend to be stereotypical in form. Lists of medical recipes are usually formulated according to a single formula, which the author chose or inherited and that suits the purpose of their treatise.⁴⁰ The use of scripta continua rendered a formulaic use of language necessary to facilitate the handling of a document. This was most important for documents intended for quick and regular use. In the case of medical recipes, it is especially important to make a clear distinction between indication, diagnosis of the cause, and therapies. The present list was stereotyped twice. The first time it was stereotyped by the author-collector of the medical treatise from which the compilers of the Talmud excerpted the list. This author had arranged the recipes according to their point of reference: האי ינוקא, “the newborn” (recipes 2–8). The list was then stereotyped a second time by the compilers of the Talmud, who, while maintaining the original structure of the list, needed to integrate it into the discursive style of the Talmud. The result is a list in which every recipe is attributed to Abaye’s mother *and* introduced with “the newborn who ...”.

This measure allowed the compilers of the Talmud to add recipes that were not originally part of the medical treatise but connect the excerpt to the subject of circumcision. Recipe 1, for example, exhibits a different style and, together with recipes 2 and 8, expresses exclusive concern for a healthy circumcision. The style seems to have been adapted as much as possible, because recipe 1 starts now with “The knot of the newborn’s bandage” (האי חלוק) while the others start with “the newborn” (האי ינוקא), like the other recipes. Recipe 8 bundles together two indications (red/yellow) like recipe 7 (small/stout), while its content is closely related to two case stories in Hebrew (baraitot), which are also used elsewhere in the Talmud to support a different case (b. Hullin 47b). This gives the impression that recipe 8 was *derived* from these two associated stories dealing with the health condition of a baby boy at his circumcision, rather than having been part of an independent source. Similarly, the content of recipe 2 appears to have been transferred from the Mishnah into the form of a medical recipe. Moreover, in recipes 1, 2, and 8, the cure consists in precautionary measures (quality of bandage, deferment of circumcision) rather than in an actual therapy. In their current positions, these “original” talmudic recipes frame the other five recipes, build up to them and again away from them, back to the issue of the specific mishnah under discussion.

According to these observations, it appears that recipes 3–7 form an excerpt of an Aramaic treatise containing *euporista* (simple remedies) for Jewish laypeople,

³⁹ A note on terminology: *indication* and *cure* are taken to constitute a (medical) *recipe*.

⁴⁰ See, e.g., the third part of the Syriac Book of Medicine (Budge 1976) and *Pseudo-Apulei Platonici Herbarius* (Brodersen 2015).

who, if the Greek and Latin opinions cited above are taken literally, did not intend to test the viability of their newborns but, rather, wanted to save them.

Discussion of the Recipes Concerning Anomalies in Newborns (Recipes 3–7)

The indications of recipes 3–7 concern (a) the newborn who cannot excrete, (b) the newborn who cannot suckle, (c) the newborn who does not breathe/cannot pass water, (d) the newborn who does not cry, and (e) the newborn who is small/stout. All these impairments are diagnosed in the first few hours after birth. This fact further distinguishes these five recipes from the other three, which apply only to the eighth day after birth and concern a wound inflicted by a third party (circumcision). As pointed out in the introduction, the recipes are distinctive among late antique medical treatises, a fact that warrants their detailed discussion.

The Newborn Whose Anus is Not Discernible (Recipe 3)

The newborn, whose anus is not discernible: One should pour oil over it and hold it opposite the sun. Where (the skin) is transparent one shall tear it (open) crosswise with a barley-corn.⁴¹ Do not use a metal instrument, because of (the danger of) inflammation (b. Šabbat 134a).

Although the text poses some minor linguistic uncertainties (see note 27), it seems obvious, judging from the cure, that the child is not able to excrete because of a closed anus. Today, this malformation is called “anal atresia” or simply “imperforated anus” and refers to an anus covered by a thin membrane. If it is just a thin membrane or a small fistula that blocks the anus, the passage is also today still opened with a piercing object, a metal stick.⁴² At present, anal atresia occurs in 1 of 5000 live births (0.002 percent).⁴³ This rate seems not to justify the inclusion of the indication in a medical treatise for laymen. Yet, as Lesley Dean-Jones observes in an examination of children’s diseases mentioned in the Hippocratic treatises, “[t]he diseases to which children were considered more prone than adults in the ancient world were not those we might expect.”⁴⁴ Especially regarding the indications discussed here, which are tightly related to the mother’s condition during pregnancy, her health and diet, contemporary statistics may render a very different picture.

⁴¹ The instruction “tear it open cross-wise” is common to other recipes, too; see, e. g., b. ‘Abodah Zarah 28a and b. Giṭṭin 67b.

⁴² See “Analatresie: Definition der Erkrankung,” Universitätsklinikum Heidelberg, <https://www.klinikum.uni-heidelberg.de/erkrankungen/analatresie-200138>.

⁴³ Cochran 2019.

⁴⁴ Dean-Jones 2013, 113.

The anus was of special concern to Soranus as well, who suggests as a general rule that, “With the little finger, whose nail has first been cut short, one must for the unhindered passing of the excrements dilate the anus and divide the thin and membranous body which often is grown round it” (*Gynaecology* 2.8).⁴⁵ Although the Talmud seems to refer to a more specific disorder, both instructions agree on the necessity of using delicate instruments, for a barley-corn, too, is not supposed to harm more than the membrane it is meant to cut.

The talmudic recipe further adds a caution against the use of iron. It is thereby in complete accord with another talmudic dictum, which recommends the use of organic material instead of iron for surgical operations to prevent inflammation (b. Hullin 77a, par b. Yebamot 76a). Soranus, on the other hand, knows of this apparently widespread practice but rejects it, whereas “the majority of the women practising midwifery approve of the section [of the umbilical cord] by means of glass, a reed, a potsherd, or the thin crust of bread; or by forcefully squeezing it apart with a cord, since during the earliest period, cutting with iron is deemed of ill omen. This is absolutely ridiculous” (*Gynaecology* 2.11).⁴⁶ Soranus subsequently even recommends the use of iron because it cuts best. Notwithstanding the fact that iron and organic material may both cause inflammation, it is interesting to see how Soranus moves away from the household and simple everyday tools with his therapies, because knives were not necessarily available to everyone. Usually only certain craftsmen – barbers, circumcisers, bloodletters, butchers (often probably not distinguishable to that level) – were in the possession of knives and scissors.⁴⁷

The Newborn Who Does Not Suckle (Recipe 4)

To understand the context of this recipe, it may be best to start with a little excursus on the ideologies of nursing in Latin and Greek sources as well as in the Talmud. Most of the Greek treatises on gynecology include some advice for the treatment of the (healthy) newborn. Many of them, such as Soranus, Galen, Oribasius, Aetius, and Paul of Aegina, were convinced that the newborn does not need food in the first two days after birth.⁴⁸ Because maternal lactation does not start before the third day, they concluded that the suckling was still full of maternal food for this period. After this period of fasting, they then suggested stimulating the appetite with boiled honey. According to Soranus, the baby should then be handed

⁴⁵ Temkin 1956, 83–84.

⁴⁶ Temkin 1956, 81.

⁴⁷ Again, the talmudic *ummana* (אִמָּנָה) incorporates several of these functions; see Sokoloff 2002, 90. Most (if not all) doctors in antiquity seem to have had other employment, too. Even Soranus was a generalist and wrote about subjects as diverse as etymology, biography, and gynecology; see King 1998, 176–177.

⁴⁸ Parkin 2013, 53. This led Dalby 2015, 196 to conclude that “we do not really know whether male physicians’ dietary theories, which would have led to poor nutrition for women and children (e.g., Soranus, *Gynaikia*), were put into practice.”

over to a wet nurse for twenty days, because “the maternal milk is in most cases unwholesome, being thick, too caseous, and therefore hard to digest, raw and not prepared to perfection” (*Gynaecology* 2.17).⁴⁹ It is difficult to imagine that “male physicians dietary theories, which would have led to poor nutrition for women and children (e. g. Soranus, *Gynaikia*), were put into practice.”⁵⁰ However, before large scale statistics became possible, not many successful test cases were needed or even possible for a doctor to make an argument. The Talmud, for instance, considers someone an expert if they cured three people (b. Šabbat 61b, in this case with an amulet). As so little data was needed, it was much easier to establish a reasonable expert theory.

The importance of philosophy should also not be ignored in these theories. Medical argumentation depended (and still depends) on the way someone imagined the constitution of the body, its place in the cosmos, and the emergence of disease, as well as the “nature of nature.” Aristotle and Favorinus thus held opinions contrary to those of Soranus.⁵¹ They were convinced of a generally perfect course of nature and hence advocated for motherly milk and feeding immediately after birth.⁵² The otherwise unknown physician Damastes is attacked by Soranus for holding a similar opinion: “Therefore, one ought to censure Damastes, who orders the mother to give the newborn the breast immediately, contending that it is to this end that nature too has provided for the production of milk beforehand so that the newborn may have food straightway.”⁵³

The prevailing opinion in the Babylonian Talmud is that nature is God’s perfect creation that wants for nothing. The talmudic conclusions are thereby mostly in agreement with Aristotle, Favorinus, and Damastes. This can be seen, for example, in a statement attributed to Rabbi Yehoshua ben Levi in which he paraphrases and expounds the barren Hanna’s prayer (1 Samuel 1:12–17):

Master of the universe! Of all things that you created in a woman, you created not a single thing for nothing: eyes to see, ears to hear, [...] and breasts to nurse with. What are the breasts on my heart for?! Give me a child so that I can nurse with them (b. Berakhot 31b).

Breastfeeding was considered so important that widows were forbidden to remarry until their infant was twenty-one months old to secure its supply, because it was known that the amount of milk decreased during a new pregnancy (b. Yebamot 12b).⁵⁴

⁴⁹ Temkin 1956, 89.

⁵⁰ Dalby 2015, 196.

⁵¹ See Parkin 2013, 51–53.

⁵² However, Aristotle (*Physica* 19b) concedes that nature may also be mistaken: “Now, mistakes come to pass even in the operations of art: the grammarian makes a mistake in writing and the doctor errs in posology. Hence, clearly, mistakes are possible in the operations of nature as well.”

⁵³ Temkin 1956, 89.

⁵⁴ For more details concerning the Talmudic attitude to breastfeeding, see Eidelmann 2006.

Because Greek and Latin authors were apparently concerned with viable newborns alone, the indication described in the Talmud – a baby who does not suckle – is absent in the surviving sources. Similarly, a much older Akkadian treatise, of diagnostics and prognostics the *Diagnostic Handbook* (TDP) considers this condition incurable: “If the baby, two, three days after he is born, does not accept the milk, *mi-iq-tu* (var. ŠUB-tum) is falling upon him time and again, like the Hand of the God: its (= the disease’s) name is Hand of Ištar, the Snatcher (Ekkēmtu) – he will die.”⁵⁵

Thus, what is striking in the Talmud is not merely the positive attitude toward the fact that the newborn does not suckle, but that the recipe also renders a cause besides the cure: “The newborn, who does not suckle: it is undercooled because its mouth is cold. What is its remedy? One should bring a bowl with live coals and hold it opposite its mouth so that the mouth becomes warm and it can suckle” (b. Šabbat 134a). The cause for the newborn’s inability to suckle is of a cold mouth. The baby’s mouth should therefore be warmed with live coals. Considering the baby’s sensitive skin, the measure seems unnecessarily dangerous and overly complicated. Why would such a measure be taken if the child would heat up immediately by simply lying on its mother’s warm chest? Indeed, the cure is time-consuming, complicated, and, most of all, dangerous.

In the case of lambs and kids, however, the given cause *and* the cure would be appropriate. If lambs and kids are born outside in the fields, they can easily become subject to a “birth chill.” A birth chill occurs when the still-wet body of a newborn lamb or kid is exposed to cold weather and breezes. Their mouths become cold, they are not able to suckle and die. Latin agricultural treatises therefore recommend detaching separate birthing pens to guarantee a favorable body temperature for the lamb.⁵⁶ After birth, the ewe and the lamb would remain there for another two days for her to keep the lamb warm. Varro even suggests that the lamb be placed near a fire, and that it should be drawn to its mother’s udder, and “its lips smeared with butter or hog’s lard and the lips be given the savour of milk” in case it would not suckle.⁵⁷ In b. Šabbat 128 the ideal scenario is described as someone holding the newborn animal in order to prevent it from falling to the ground. The person would then blow out the nostrils before putting the mother’s teat directly into the newborn’s mouth.

The cause given in the recipe, the cold mouth, as well as its cure, the bowl of live coals, appear therefore to have originated in the context of lambs or kids rather than human babies. It should be asked, then, whether the preceding recipe

⁵⁵ Translation follows Stol 1993, 34, according to *Diagnostic Handbook*, Tablet 40, TDP 220:26–27: š. lā’û ki-ma al-du UD₂.KĀM UD₃.KĀM illak-ma šizba la i-maḥ-ḥar mi-iq-tu ki-ma qât ili imaqqut-su qât (ilat)ištar ik-ki-im-tum šum-šu imât.

⁵⁶ Columella, *On agriculture* 7.3 (first century CE) and Palladius, *On agriculture* 12.13 (probably fifth century).

⁵⁷ Varro, *On agriculture* 2.2.16. Translation follows Hooper and Ash 1934.

applies to small cattle rather than babies as well. This, however, cannot be determined for certain, because *atresia ani* occurs among small cattle as it does among human babies, and the cure would most likely have been the same, just as it is the same today.⁵⁸ The use of a barley-corn rather than a midwife's fingernail, however, may point to the recipe's origin in a rural setting. Before discussing in more detail the relationship between human and veterinary medicine in general and in the Babylonian Talmud in particular, the next three recipes will be analyzed with regard to both human babies as well as lambs and kids.

The Newborn Who Does Not Cry (Recipe 5)

"The newborn, who does not cry: One should bring the afterbirth of the mother and glide it over it and it will cry" (b. Šabbat 134a). None of the Roman writers on agriculture mentions the importance of sound making for newborn lambs or kids. This recipe appears to belong to the realm of human babies as Soranus, for example, is concerned with the newborn's sounds, because these are signs of vitality. He suggests placing the newborn on the ground to make it cry (*Gynaecology* 2, 6).

The recipe is very simple in its composition: no reason for the condition is given, as in recipe 4; no direction of the movement of the afterbirth is given, as in recipe 7; no cause for caution is stated, as in recipe 5. The one ingredient needed for the cure is at hand, the application mechanical and external. In that, the recipe comes very close to the characteristics of cures for animals, which are, by necessity, simple and involve preferably application or ingestion, often drugs that can be "smuggled" into the animal's food.⁵⁹ The recipe, too, may apply to both human baby and cattle. Although I did not find a precedent, it is feasible that farmers would rub nonbreathing animals with the organ that had sustained them throughout the preceding weeks and months. And only a few passages earlier, we learn that the afterbirth should be buried to keep a human baby warm (b. Šabbat 129b par t. Šabbat 15.3 and Midrash Numbers 4:3).

The Newborn Who Does Not Breathe (Recipe 6)

"The newborn who does not breathe/pass water: One should ... (לינפפיה) with a ... (בנפפותא) [conventionally translated as fan with a fan] and it will breathe/pass water" (b. Šabbat 134a). It is difficult to translate the indication properly without context, since the constitutive verb is conjugated differently in every manuscript and could be interpreted as either שתם, "to breathe" or שתן, "to pass water." It seems that anuresis, the condition of not being able to pass water, would make good sense in the context of circumcision. Yet, if this is the case, the placement of

⁵⁸ Harwood 2006, 78 writes: "Those that respond best to treatment are those where the anus is closed off simply by a thin layer of skin; a single cut under local anaesthetic will release a mass of foul-smelling faeces, and the kid will be much more comfortable almost immediately."

⁵⁹ See Zucker 2008, 68.

the recipe would be odd, because such lists are usually arranged systematically in a top-down order before moving to disorders concerning the whole body. This was most likely also the case in the treatise from which recipes 3–5 were excerpted. Accordingly, the condition of anuresis should have followed the one of the imperforated anus (recipe 3). Moreover, a light anuresis can simply be cured by adding a supplementary instillation of liquid to the baby's diet. Severe anuresis, on the other hand, is accompanied by even more severe anomalies and respiratory disorders, which would then have been considered the primary problem.⁶⁰

The conventional interpretation of the text according to the medieval commentator Rashi seems therefore more plausible: the baby has trouble breathing and should be fanned with a fan. To translate the *hapax legomenon nafuta* (נפּוּתָא) as “fan” seems remotely supported by Neo-Babylonian *nāpu*, which means “to sway” or “to shake.”⁶¹ Fanning air into the baby's lungs may be reasonable advice. It is, however, a passive act, since the sickly newborn is expected to do something with the extra air – breathe.

The scenario changes if the verb *nafaf* (נפּפ) is not translated as “to fan” but according to the Neo-Babylonian *nāpu* as “to swing.” Swinging the baby with swings or in a swinging (בנפּפּוּתָא) would be a more active measure to get an animal or human to breathe. This is again a measure that is traditionally applied to kids who do not breathe: “Gently hold the kid upside down by its hind legs, and swing from side to side like a pendulum.”⁶² The procedure helps to clear the lungs of the mucus that clogged them.⁶³ Normally, the nostrils of cattle were blown out directly after birth, as a tradition in Hebrew (i. e. originating in Palestine) relates in b. Šabbat 128b. This may again have been a measure applied to both human babies and small cattle in the case in which the general measures did not do the trick. In the case of small cattle, the measure may also have been a more local one.

For the Newborn Who is Small or Thick (Recipe 7)

“The thin newborn: One should bring the afterbirth of the mother and glide it over it from the thin part to the thick part. And if it is thick from the thick part to the thin part” (b. Šabbat 134a).

It goes without saying that an underweight newborn requires special care, be it human or animal. The cure, however, again seems to apply to an animal rather than an infant, especially because of the distinct external application. A similar treatment is suggested elsewhere in the Talmud to stir an animal mother to accept

⁶⁰ Martius et al. 1995, 488: “Anurie aufgrund anatomischer Defekte ist stets mit mehr pathologischen Erscheinungen (z. B. äussere Missbildungen, Atemstörungen) verbunden.”

⁶¹ Black 2000, 240, *nāpu* (I) and Sokoloff 2002, 763.

⁶² Harwood 2006, 67.

⁶³ The importance of freeing nose and mouth from mucus to allow breathing is already mentioned in a cuneiform text; see Volk 2004, 87.

her young. Thus, an instruction attributed to Abaye in b. Šabbat 128b suggests sprinkling the young animal with amniotic fluid to cause its mother to accept it.⁶⁴ With regard to a human baby, on the other hand, the cure would only be of symbolic value.

The second part of the recipe is difficult to explain based on the available semantic field of *'alim* (אֱלִים). In other instances in the Talmud, the word refers to “strong,” “compelling,” and “authorized.”⁶⁵ None of these meanings implies a negative quality, neither in a newborn baby nor in an animal. It seems that this second recipe was added because the first one could nicely be reversed in terms of indication as well as cure (thin: thin to thick, and thick: thick to thin).

The Relationship between Human and Veterinary Medicine in the Talmud

The findings above require a broader framework to be correctly assessed. Questions about the relationship between human and veterinary medicine in late antiquity are especially of interest here. To what extent did human medicine depend on veterinary medicine and *vice versa*? Did transfers happen consciously, unconsciously, or simply by way of a wrong identification of sources?⁶⁶ Answers to these questions may again be obtained based on comparison with Greek and Latin sources. These will help to contextualize the observed fusion of human and veterinary medicine in b. Šabbat 134a.

Based on these comparisons, it is highly improbable that a conflation between human and animal medicine or even transfers between the two occurred unintentionally, since no extant work treats the two subjects simultaneously. Rather, treatises were written and compiled separately, treating either human or veterinary medicine. Moreover, animals are not treated as a homomorphous group but dealt with by species. Although, as Aristotle notes, “most of the diseases of man trouble also the horse and the sheep,” the therapies are never the same, not even among cattle, except for some convergence between sheep and goat.⁶⁷ Still, the technical

⁶⁴ The procedure is still suggested today; see Greiner and Wahlberg 2009, 4. Another tradition suggests stripping the dam off its hide in case it were to die in the process of giving birth and cover her young with it; see b. Bekhorot 57a.

⁶⁵ See Sokoloff 2002, 134.

⁶⁶ A comparison to veterinary practices in contemporary Sasanian Persia would obviously be more helpful than a comparison with Greco-Roman sources. However, evidence on the subject is scanty, for it appears that no exclusively veterinary treatise from the Persian Empire has survived. Still, the art seems to have existed in distinction from human medicine; see Tadjbakhsh 2008. The only article on veterinary medicine in the Talmud, on the other hand, was written by Hadani and Shimshony 1994.

⁶⁷ Zucker 2008, 66–68. For examples, see Columella, *On agriculture*, books 6 and 7. The quote refers to Aristotle, *Historia Animalium* 604b25; see also Pliny, *Naturalis Historia* 8.166. In

tools for carrying out medical interventions are largely the same, in part because veterinary medicine is more recent than human medicine and gained attention only in the wake of the systematic breeding of cattle. It was built on knowledge of human medicine, and treatments were adapted accordingly.⁶⁸ The driving forces behind an increasing interest in the systematization of veterinary medicine were therefore not ethically but economically motivated.⁶⁹ In times when people used to live and work in close proximity to their cattle, it seems rather obvious that medical treatments should cross the borders between stable and living room. But obviously, the situation is more complex. Differences between humans and cattle were generally emphasized and maintained.⁷⁰ Whether for rhetorical purposes alone or in real life as well, conditions in cattle were in some cases transferred to humans, especially women in rabbinic literature.⁷¹ Since humans are mammals as well, a transfer of medical procedures from human medicine to veterinary medicine can be assessed only in cases in which it is either explicit, obvious, or leads to terribly wrong conclusions. For instance, the already mentioned observation that milk decreases during a new pregnancy can be derived from women as well as from female cattle.

An example of a wrong transfer from small cattle (most likely goats) to women seems to underlie b. 'Abodah Zara 26a. There a tradition suggests two excuses (attributed to Abaye) that a Jewish woman could use to decline the request to nurse a non-Jewish woman's baby without offending her. "She could explain herself in the following manner: If she is unmarried she can say: 'I have in mind to get married' and if she already has a husband she could say: 'I do not want to become foul smelling for my husband'." The excuses give the impression of ignoring the fact that lactation is stimulated only in postpartum female mammals. Apparently, "Abaye" assumes that every woman, even those of unmarried, virgin status, can lactate. Again, a look into the stable might explain the empirical basis of this idea: "Precocious udder can occur in all small ruminant species but most commonly is observed in nulliparous dairy goats."⁷² The phenomenon of the "precocious udder," an udder that lactates without previous birth or even pregnancy, can therefore occur in goats that are ready for breeding but are not (yet) tupped.

the Talmud we find an oxen suffering from pain in the pharynx (b. Baba Qamma 35a), a hen is said to have a fever (b. Pesahim 55b), and a ewe dragging her hind legs is thought to suffer from *shigrona*-disease (b. Hullin 51a; for a recipe to cure *shigrona*-disease in humans, see b. Giṭṭin 69b). The tenth-century *Geoponica*, on the other hand, notes rhetorically that "almost all of the diseases of animals are unknown; for how could one know them?" (17.14, cited according to Zucker 2008, 72).

⁶⁸ See Zucker 2008, 69 and Fischer 2006, 203.

⁶⁹ For the development of veterinary medicine in late antiquity, see Meissner 1999, 292–304.

⁷⁰ See, for example, b. Berakot 10a, where the different positions of the female breasts and the udder are contrasted and interpreted.

⁷¹ See Ilan 2017, 17.

⁷² Plummer and Plummer 2012, 446.

This condition might be taken to resemble a bride shortly before marriage and most likely served as a foil for the first excuse. The second excuse, concerning the foul smell of a lactating woman, might result from cattle as well: rams and bucks prefer ewes and does that do not lactate.⁷³ At least for argumentative purposes, women and cattle may have been treated on a par. That this was also the case in medical practice may be doubted.

Conclusion

The list of eight medical recipes concerning the sickly newborn in tractate Šabbat 134a in the Talmud seems rather exceptional. There are many instructions in Greek and Latin medical literature on how to raise a beautiful child, and, at the same time, a certain indifference regarding the sick child, as Robert Etienne notes.⁷⁴ The reason for this situation can perhaps be attributed to the Roman policy to rear only viable (and legal) children.

The talmudic list is characterized by a double formalization per its attribution to the prominent talmudic sage Abaye's mother and per the formal characteristics of a medical recipe, in this case an indication starting with "the newborn who" (האי ינוקא) followed by a cure that starts with a verb (in four cases ליתי, "to bring").

Despite this formal harmonization, five recipes stand out as genuine medical recipes, while the first two and the last one concern aspects of circumcision. Although framed in the style of medical recipes, the first two recipes do not give an indication related to a pathological state, while the last one does not offer a medical cure. An analysis of the other five recipes has shown that at least one is better explained in the context of lambs and kids than human newborn. The application of the other four can be placed in both human and animal contexts.

This raised the question whether the transfer of animal recipes into the human context was a conscious or an unconscious one. Although firm philosophical boundaries seem to have separated humans from animals in Greek and Latin literature as well as in the Talmud, diseases were assumed to be largely the same for both humans and animals. Still, therapies were clearly adjusted, whether trans-

⁷³ Cottle 1991, 94. Interestingly, the Mishnah allows small cattle to be bred only in the woods but allows it outside of Palestine. Despite this permission, the Babylonian discussion reaches the consensus that the rule must be followed in Babylonia as well (b. Baba Qamma 79b–80a). Still, it remains questionable whether it was carried out in the austerity in which it is formulated here because sheep and goats appear here and there in the Talmud. See, e.g., b. Berakhot 62a, where Abaye's mother is said to have trained a sheep to accompany him to the privy to protect him from the demons there.

⁷⁴ Etienne 1973, 31: "Nous allons être amenés à constater d'une part, une abondance de prescriptions minutieuses pour faire un bel enfant et d'autre part une sorte d'indifférence devant l'enfant malade."

ferred from humans to animals or derived from observation of animal auto medication.⁷⁵ It can therefore neither be plausibly argued for a conscious transfer, because this was not common, nor for an unconscious one since the treatments were generally too different. It might, however, be possible that the author of the recipes placed newborn humans and newborn cattle on the same level. Such an idea is expressed, for example, in the reasoning of the philosopher Plutarch, who compared the newborn first to a plant that turns successively into an animal after the loss of the umbilical cord: “(S)even days after birth occurs the loss of the umbilical cord; until then the newborn child is more like a plant than an animal” (*Roman Questions* 102, Mor. 288c).⁷⁶ The Talmud confirms this notion also through the many instances in which the pregnant, birthing or post-parturient body is compared to that of female cattle.⁷⁷

If the five recipes in b. Šabbat 134a indeed constitute an excerpt from an Aramaic veterinary treatise, the association of these recipes with human newborns may also have occurred on the part of the compilers of the Talmud, who merely had this decontextualized excerpt at their hands. They may have wrongly assumed that “newborn” referred to a human being and hence placed the recipes with the instructions for the treatment of the freshly circumcised membrum of a baby boy.⁷⁸

Whether the cures for the newborn who cannot excrete, the one who cannot suckle, the one who does not breathe, the one who does not cry, and the one who is small or stout originally applied to goats or babies: they are in any event distinctive in late antique medical literature.

Bibliography

- Berkowitz, Beth. 2018. *Animals and Animality in the Babylonian Talmud*. Cambridge: Cambridge University Press.
- Black, Jeremy, et al. 2000. *A Concise Dictionary of Akkadian*. 2nd ed. SANTAG Arbeiten und Untersuchungen zur Keilschriftkunde 5. Wiesbaden: Harrassowitz.

⁷⁵ E. g., in b. Giṭṭin 69b, the water from the smithy is enough to cure the goat, but the human needs additional measures. In b. Baba Qamma 35a, an ox suffering in the pharynx is said to have cured itself by drinking beer, whereas the recipe given in b. Giṭṭin 69a against the same pain does not use beer.

⁷⁶ Parkin 2013, 45.

⁷⁷ In the case of activities relating to birth on a Sabbath, women and animal rights are treated simultaneously, although they are not accredited similar rights (e. g. b. Šabbat 128b; and cf. b. Šabbat 54b, where Rav Aḥa bar Ulla and Rav Pappa treat their ewes like Rav Ḥisda and Rav Naḥman treat their wives). This alignment in comparison is already given by the Mishna and followed without contestation in the Babylonian Talmud, see b. Hullin 68a and Ilan 2017, 17.

⁷⁸ In Greek and Latin occasionally the expressions τροφίμος or *alumnus* (both meaning “nursling, [foster-]child”) are used for young livestock; see Franco 2017, 42. The Mishnah (m. Bekhorot 9:4) refers to an orphaned young animal similarly as a יתום, a legal orphan. However, reference is otherwise made to lamb, kid, and calf, and not to the unidentified “suckling.”

- Brodersen, Kai, ed. and trans. 2015. *Apuleius' Heilkräuterbuch (Herbarius)*. Wiesbaden: Marix Verlag.
- Budge, Ernest A. 1976. *The Syriac Book of Medicines: I Syrian Anatomy, Pathology and Therapeutics in the Early Middle Ages with Sections on Astrological and Native Medicine and Recipes, by an Anonymous Physician*. 2 vols. London: Oxford University Press, 1913. Repr. St. Helier/Amsterdam: Amorica Book Co/Apa-Philo Press.
- Burguière, Paul, Danielle Gourevitch, and Yves Malinas. 1990. *Soranos d'Ephèse. Maladies des femmes*. Paris: Les Belles Lettres.
- Cochran, William J. 2019. "Anal Atresia." MSD Manual, Professional Version, <https://www.msdmanuals.com/professional/pediatrics/congenital-gastrointestinal-anomalies/anal-atresia>.
- Cottle, David John. 1991. *The Australian Sheep and Wool Handbook*. Melbourne: Inkata Press.
- Dalby, Andrew. 2015. "Men, Women, and Slaves." *A Companion to Food in the Ancient Worlds*. Edited by Robin Nadeau and John Wilkins. Chichester: Wiley. Pages 195–205.
- Dean-Jones, Lesley. 2013. "The Child Patient of the Hippocratics: Early Pediatrics?" *The Oxford Handbook of Childhood and Education in the Classical World*. Edited by Judith Evans Grubbs and Tim Parkin. Oxford: Oxford University Press. Pages 108–124.
- Eidelman, Arthur I. 2006. "The Talmud and Human Lactation: The Cultural Basis for Increased Frequency and Duration of Breastfeeding Among Orthodox Jewish Women." *Breastfeeding Medicine* 1,1: 36–40.
- Etienne, Robert. 1973. "La conscience médicale antique et la vie des enfants." *Annales de Démographie Historique* 1973: 15–61.
- Fischer, Klaus-Dieter. 2005. "Gebärmuttervorfall und Katarakt. Antike Human- und Veterinärmedizin im Vergleich." *Schweizer Archiv für Tierheilkunde* 147: 11–33.
- Fischer, Klaus-Dieter. 2006. "ὅντιν τρόπον οἱ ἰατροὶ ἐν ἀνθρώπῳ." In *Ärzte und ihre Interpretieren. Medizinische Fachtexte der Antike als Forschungsgegenstand der Klassischen Philologie*. Beiträge zur Altertumskunde 238. Edited by Carl Werner Müller, Christian Brockmann, and Carl Wolfram Brunschön. München/Leipzig: Teubner. Pages 203–224.
- Fonrobert, Charlotte. 2000. *Menstrual Purity: Rabbinic and Christian Reconstructions of Biblical Gender*. Stanford, CA: Stanford University Press.
- Franco, C. 2017. "Greek and Latin Words for Human-Animal Bonds: Metaphors and Taboos." In *Interactions Between Animals and Humans in Graeco-Roman Antiquity*. Edited by Thorsten Fögen and Edmund Thomas. Berlin: De Gruyter. Pages 39–60.
- Geller, Markham J. 2004. *Akkadian Healing Therapies in the Babylonian Talmud (Preprint 259)*. Berlin: Max-Planck-Institut für Wissenschaftsgeschichte.
- Greiner, Scott P., and Mark L. Wahlberg. 2009. "Newborn Lamb Management." Virginia Cooperative Extension Publication 410–026: 1–6.
- Hadani, A., and Arnon Shimshony. 1994. "Traditional Veterinary Medicine in the Near East: Jews, Arab Bedouins and Fellahs." *Revue Scientifique et Technique de l'Office International des Epizooties* 13,2: 581–597.
- Hanson, Ann E. 1994. "A Division of Labor: Roles for Men in Greek and Roman Births." *Thamyris* 1,2: 157–202.
- Harwood, David. 2006. *Veterinary Guide to Goat Health and Welfare*. Wiltshire: The Crowood Press Ltd.
- Hirt, Marguerite. 2004. "La législation romaine et les droits de l'enfant." In *Naissance et petite enfance dans l'antiquité. Actes du colloque de Fribourg, 28 Novembre–1er Décembre*

2001. Edited by Véronique Dasen. *Orbis Biblicus et Orientalis* 203. Göttingen: Vandenhoeck & Ruprecht. Pages 281–292.
- Holmes, Brooke. 2017. “The Generous Text: Animal Intuition, Human Knowledge and Written Transmission in Pliny’s Book on Medicine.” In *Knowledge, Text and Practice in Ancient Technical Writing*. Edited by M. Formisano and P. van der Eijk. Cambridge: Cambridge University Press. Pages 231–251.
- Hooper, William D., and Harrison B. Ash. 1934. *Cato, Varro. On Agriculture*. Loeb Classical Library 283. Cambridge, MA: Harvard University Press, 1934.
- Hüttenmeister, Frowald G. trans. 2004. *Shabbat–Schabbat*. Übersetzung des Talmud Yerushalmi 2/1. Tübingen: Mohr Siebeck.
- Ilan, Tal. 2006. *Silencing the Queen: The Literary Histories of Shelamzion and Other Jewish Women*. Tübingen: Mohr Siebeck.
- Ilan, Tal. 2017. *Massekhet Hullin: Text, Translation, and Commentary*. A Feminist Commentary to the Babylonian Talmud 5, no. 3. Tübingen: Mohr Siebeck.
- Jackson, Ralph. 1988. *Doctors and Diseases in the Roman Empire*. London: British Museum Press.
- Jastrow, Marcus. 1926. *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic literature: with an Index of Scriptural Quotations*. New York: Choneb.
- Kalmin, Richard. 2017. “Observation in Rabbinic Literature of Late Antiquity.” In *The Faces of Torah: Studies in the Texts and Contexts of Ancient Judaism in Honor of Steven Fraade*. Edited by Michal Bar-Asher Siegal, Tzvi M. Novick, and Christine Hayes. Göttingen: Vandenhoeck & Ruprecht. Pages 359–384.
- Kottek, Samuel. 1996. “Selected Elements of Talmudic Medical Terminology, with Special Consideration to Greco-Latin Influences and Sources.” *Aufstieg und Niedergang der römischen Welt. Geschichte und Kultur Roms im Spiegel der neueren Forschung*. Part 2, *Principat*. Edited by Hildegard Temporini and Wolfgang Hase. Berlin: De Gruyter. Vol. 37,3: 2912–2932.
- King, Helen. 1998. *Hippocrates’ Woman: Reading the Female Body in Ancient Greece*. London/New York: Routledge.
- Martius, Gerhard, et al., eds. 1995. *Hebammenlehrbuch*. 6th ed. Stuttgart: Thieme.
- Meissner, Burkhard 1999. *Die technische Fachliteratur der Antike. Struktur, Überlieferung und Wirkung technischen Wissens in der Antike (ca. 400 v. Chr. – ca. 500 n. Chr.)*. Berlin: Akademie.
- Moore, Clifford H., and John Jackson, J., trans. 1931. *Tacitus. Histories: Books 4–5. Annals 1–3*. Loeb Classical Library. Cambridge, MA: Harvard University Press.
- Morganne, Marie-Hélène 2007. “Témoignages papyrologiques sur la médecine vétérinaire dans l’Égypte gréco-romaine et byzantine.” In *La médecine vétérinaire antique. Sources écrites, archéologiques, iconographiques*. Edited by Marie-Thérèse Cam. Rennes: Presses universitaires de Rennes. Pages 145–157. Online: <https://books.openedition.org/pur/25528>.
- Parkin, Tim. 2013. “The Demography of Infancy and Early Childhood in the Ancient World.” In *The Oxford Handbook of Childhood and Education in the Classical World*. Edited by Tim Parkin and Judith Evans Grubbs. Oxford: Oxford University Press. Pages 40–61.
- Plummer, Paul J., and Cassandra Plummer. 2012. “Diseases of the Mammary Gland.” In *Sheep and Goat Medicine*. 2nd ed. Edited by David G. Pugh and A.Nickie Baird. Saint Louis, MO: Elsevier. Pages 442–465.

- Sokoloff, Michael. 2002. *Dictionary of Jewish Babylonian Aramaic of the Talmudic and Geonic Periods*. Ramat-Gan, Israel: Bar Ilan University Press and Baltimore, MD: The Johns Hopkins University Press.
- Stemberger, Günter. 2011. *Einleitung in Talmud und Midrasch*. 9th edition. Munich: Beck.
- Stol, Marten. 1993. *Epilepsy in Babylonia*. Cuneiform Monographs 2. Groningen: STYX.
- Stol, Marten. 2000. *Birth in Babylonia and the Bible: Its Mediterranean Setting*. Cuneiform Monographs 14. Groningen: STYX.
- Tadjbakhsh, Hassan. 2008. "Veterinary Medicine in Iran." *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures*. Edited by Helaine Selin. Dordrecht: Springer. Pages 4346–4351.
- Temkin, Owsei. 1956. *Soranus' Gynecology*. Translated by Owsei Temkin. Baltimore: Johns Hopkins University Press.
- Volk, Konrad. 2004. "Vom Dunkel in die Heiligkeit. Schwangerschaft, Geburt und frühe Kindheit in Babylonien und Assyrien." In *Naissance et petite enfance dans l'antiquité. Actes du colloque de Fribourg, 28 Novembre–1^{er} Décembre 2001*. Edited by Véronique Dasen. *Orbis Biblicus et Orientalis* 203. Göttingen: Vandenhoeck & Ruprecht. Pages 71–92.
- Zucker, Arnaud. 2008. "Homme et animal. Pathologies communes et thérapies partagées?" In *Le médecin initié par l'animal. Animaux et médecine dans l'antiquité grecque et latine. Actes du colloque international tenu à la Maison de l'Orient et de la Méditerranée-Jean Pouilloux, les 26 et 27 Octobre 2006, Lyon*. Edited by Isabelle Boehm and Pascal Luccioni. Collection de la Maison de l'Orient méditerranéen ancien. Série littéraire et philologique, 39. Lyon: Maison de l'Orient de la Méditerranée. Pages 63–78.

Salome's Medicinal Recipe and Jewish Women Doctors in Antiquity

TAL ILAN

ABSTRACT: This contribution discusses the appearance of an enigmatic Salome in the writings of the Greek physician Galen and the medical recipe assigned to her. First I argue that this is a historical personage, typical of the kind of women mentioned in the writings of Galen, who also provided him with medical recipes. Then I argue that, although the evidence we have in other sources as well (primarily rabbinic literature) is scant, Salome was not the only learned female Jewish physician and I will put her in context with the other women who are recorded in a similar manner.

This contribution is about the hidden identity of Jewish female physicians in antiquity. Much has been written about female physicians in the Greco-Roman world and what is still a sort of anathema among scholars of ancient Judaism is by now commonplace in circles of classical scholars. However, as we shall see throughout this contribution, as soon as scholars begin to recognize that there were women physicians in antiquity, a new trend develops to interpret these women out of existence – either that, or their achievements are played down, mostly out of sheer disbelief rather than a sound interpretation of the sources. I will show that the same trends are at work when one speaks of Jewish women physicians. Some of what I say here I have already argued in my book, *Silencing the Queen*, but some of my claims are new, and I thank the editors of this book, who pushed me to rethink some aspects of this issue.

1. Salome

Between 1976 and 1984 the renowned Second Temple history and classics scholar, and my late PhD supervisor, Menahem Stern, published his magnum opus – *Greek and Latin Authors on Jews and Judaism*, in three volumes. The collection is invaluable to scholars of Judaism in antiquity and immediately on its appearance gained the status of a canon.

In this contribution I present an example of a text Stern had cited (no. 387),¹ but, in my opinion, gravely misinterpreted, because for him gender was not a category of analysis. The text in question derives from a book composed by one of the foremost physicians of the Roman period – Galen, of Pergamum (129–216 CE). He visited many parts of the Roman world of his time, including the province *Palestina*.² He wrote literally hundreds of books, some of which were lost in a fire that devastated the warehouses where he stored them;³ others which have come down to us only in an Arabic translation. The text we are interested in is mentioned in one of the books preserved in Greek – *Compositio Medicamentorum per Genera* (*The Composition of Medicines by Type*), one of three surviving pharmacological compositions. It lists countless medical recipes, mentioning various plants, or minerals, or animal products, that should be mixed, as well as the ways these should be prepared. On the nature of this collection, Susan P. Mattern wrote in her recent book:

The remedies Galen records ... were the product of a long tradition and have much of the character of folk medicine. The pharmacological works are vast, nearly impenetrable collections of hundreds of remedies culled from previous authors ... Galen annotates the recipes with much commentary reflecting his own experience, sometimes including stories of patients healed, and occasionally the result of deliberate experiment.⁴

Our text falls neatly into this description. I quote here a slightly longer section than in Stern's *Greek and Latin Authors*:

Πρὸς ἀπαλοχρῶτας καὶ διαφορεῖ ... ἰξοῦ εἰργασμένου λίτραν α' ῥητίνης τερμινθίνῃ λίτραν α'. Χαλβάνου οὐγγίας γ'. Τήξας χρώ.
ἄλλη Σαλώμῃ πρὸς πᾶσα περιωδυνίαν καὶ σύναγχην μετὰ σικύας πρὸς πλευρᾶς πόνον.
Β' λιθαργύρου λίτρας β'. ἐλαίου παλαιοῦ οὐγγίας η'. ἔψε ὁμοῦ.⁵

Stern quoted only a portion of the second part of the text and translated it as follows

Salome with gourd is good for every pain and sore throat as well as for pleurisy.

He wrote:

The medicine Salome, to be used against pain, seems to be mentioned only here. The name of the medicine suggests a Jewish connotation, being the well-known name of the Hasmonean queen (Salome-Alexandra) among others, and of Herod's sister, who had close connections to the empress Livia ... It may be that one of them gave her name to the medicine ...

¹ Stern 1980, 324.

² Stern 1980, 306.

³ For which see e.g. Nicholls 2011. I thank the anonymous reader of this contribution for this reference.

⁴ Mattern 2013, 261–62.

⁵ Galen, *De comp. med. per gen.* 2.7 (13.507 K.)

Although I am a great admirer of Stern, I would like to dispute every part of this interpretation, beginning with his translation. I believe, that in order to understand this text we have to read it with the paragraph that comes before it (and the text that comes after it). I translate the first part as follows:

For infected soft skin ... Processed mistletoe – 1 pound; terebinth resin – 1 pound; juice of all-heal – 3 ounces; melt and apply.

This is the kind of text we find in Galen's book on the composition of medicines. The recipes are presented with the exact measurements of the components of which they comprise, as well as the ailment for which they are presumed a cure. Here is an example. I copy it from a recent article and a translation of the text offered therein because, to date, there is no English translation of this work of Galen:

Asclepiades wrote another thus. Emollient which we call golden: golden arsenic and asbestos, of each 2 ounces; moist alum, 2 ounces; split alum, 2 ounces; we chop the dry ingredients, we sieve them, putting them in a mortar; to these we add 8 *kyathoi* of vinegar, grinding carefully as we mix with the melted ingredients. These are wax, torch and pine resin, of each 2 *litrai*; common oil, 8 *kyathoi*. Melting these, we leave them to cool down, and scraping them we add them to the ground ingredients.⁶

In this text, like in the text in which we are interested, we find names of ingredients, measurements and method of preparation. We also have a named authority. The recipe I am discussing has no authority, but it continues, with the mention of an authority – a certain Salome – according to my translation, as follows:

Differently Salome: for all extreme pains and throat aches, with a cupping instrument for rib aches. Litharge – 2 pounds; aged oil – 8 ounces. Boil together.⁷

Here is how my translation differs from Stern's

1. σικύας can be translated both as gourd (as in Stern's translation) and, by application – cupping instrument (i. e. the instrument used by doctors in antiquity for various uses, prominent among them blood-letting). This is probably what it means here, since, we are dealing with a medicine book, composed by a doctor (who also put great stock in blood-letting) and who uses this term often.⁸ Or in the words of Susan Mattern: "Bloodletting plays a minor role in the Hippocratic Corpus, but was an established therapy by Galen's times, and would go on to have a very long history in European, Islamic and Jewish medicine, partly as a result of his influence ..."⁹ Thus, I think that the latter translation is to be preferred. According to this authority (Salome), whoever administers this concoction to the patient, who is suffering from *πλευρᾶς πόνον*, should use this instrument in the process.

⁶ Totelin 2012. This translation is near fn. 25.

⁷ I thank the anonymous reader of this contribution for the addition of the last part of the recipe and its translation here.

⁸ See now Bliquez 2014, 56–72.

⁹ Mattern 2013, 235.

2. Unlike Stern, who left *πλευρᾶς πόνον* virtually untranslated (pleurisy), I prefer the literal translation ‘rib (*πλευρᾶς*) aches (*πόνον*),’ In modern English pleurisy means inflammation of the lung, but I do not think this is what Galen was specifying, especially because he and other Greek authors have a specific term for ‘pleurisy’ (*πλευρίτις*).¹⁰ My translation fits well with the other ailments for which this medicine is useful: ‘infected soft skin’ according to the first opinion and ‘extreme pains and throat aches’ according to the second.

3. Of course my most dramatic difference in translation refers to the first clause in the sentence, which I translate ‘Differently Salome.’ I do this because I begin with the word *ἄλλη* which Stern quoted but left out in his translation. Galen often uses it to present another opinion on a certain medicine. Here are two examples, translations taken from two different articles on Galen:

ἄλλο τὸ τοῦ Ἀλκίως. Παραπεποιημένον ὑπὸ Οὐαλερίου Παυλίνου
another of Halius, as modified by Valerius Paulinus.¹¹

ἄλλη δίου Γαίου σύμφωνος
another of the divine Gaius, suitable.¹²

It is exactly in this light that Cajus Fabricius, in his book on Galen’s pharmacological sources, states that: “many recipes are introduced with the formula *ἄλλος*, indicating that the following medicine belongs, according to sort and symptoms, to the previous one [just cited].”¹³ I argue that mentioning Salome in the next line, after presenting the recipe, and stating that this is a second opinion on this medicine, indicates that Salome is the name of an authority and not the name of the medicine. I realize that if correctly transmitted, Salome’s name should have been in the genitive (*Σαλώμης*), as are the names of the other authorities mentioned above, but in light of the state of transmission history of Galen’s work (to which no critical edition is available) we have no way of knowing if that is not the case in some manuscripts, and even if there is no such version anywhere, this is still no indication about when exactly the final sigma had disappeared.

Before I continue this line of argument, I wish to lay to rest Stern’s other arguments about why Salome is the name of the medicine, and how it got that name. He claimed:

The name of the medicine suggests a Jewish connotation, being the well-known name of the Hasmonean queen (Salome-Alexandra) among others, and of Herod’s sister, who had close connections to the empress Livia ... It may be that one of them gave her name to the medicine ...

¹⁰ I thank the anonymous reader of this contribution for this information.

¹¹ Mattern 2013, 364.

¹² Parker 2012, 369.

¹³ Fabricius 1972, 108.

Yet Stern is wrong here on two counts. 1. The queen's name was not Salome (שלום) at all – it was Shelamzion (שלמציִון), a completely different name, which no one in antiquity would confuse with the other.¹⁴ 2. The name “Salome” was not just the name of Herod's sister; it was also the second most common female name in Palestine in the last centuries BCE and first centuries CE, borne by 77 women whose names have come down to us through the ages, constituting close to 15 percent of the female population.¹⁵ It is evidenced in the writings of Josephus (as for example the name of Herod's sister) in the New Testament (as one of the women who was present in Jesus' crucifixion and resurrection – not as the dancer. This also comes from Josephus), in rabbinic literature (as the sister of Rabban Gamaliel), on ossuary inscriptions from Jerusalem (where on one ossuaries two sisters are designated Salome and Shelamzion, obviously proving that it was not considered the same name¹⁶), on ostraca from Masada, on papyri from the Judaean Desert (as for example Salome Komaise – the owner of an archive similar to that of Babatha), and on many more occasions.¹⁷

The name, in fact, was so typically Jewish, that in one famous anti-Semitic papyrus from Egypt, when the speaker wishes to deride the Emperor Claudius for his lowly Jewish origin, he accuses him of being the illegitimate son of the Jewess Salome.¹⁸ It is true that the publishers of this papyrus, Menahem Stern among them, thought this text refers specifically to Herod's sister, and Claudius is derided for being her illegitimate son, but I beg to differ on this. Just as regarding Salome mentioned by Galen, here too the focus on one woman of this name – the most prominent one (Herod's sister), that appears in the writings of the historian Stern studied (Josephus) – obscures the wider phenomenon and the information one could derive from these two occurrences of the same name (on papyrus, and in the works of the historian), namely that it was a common name for Jewish women at the time.

It seems therefore very likely that this was the name of the woman physician who provided Galen with a recipe. She was certainly a Jew, and he had most likely met her in Palestine. I will argue the former point at some length now.

As mentioned above, the question of whether there were female physicians in antiquity or not is an old one. Galen and his male colleagues were designated *iātroī*. This would also be the title they used themselves. The Greek word *ιατρός* is translated in Liddell & Scott's lexicon as “one who heals, physician or surgeon.”¹⁹ Is this also the term used to describe Galen's female colleagues? Ironically, the female form of the same word, *ιατρίνη* is translated in the same lexicon as “mid-

¹⁴ See my discussion in Ilan 1991/92, 154–157.

¹⁵ Ilan 2002 (*Lexicon of Jewish Names in Late Antiquity Part I*), 249–253.

¹⁶ Ilan, 1991/92, 155–157.

¹⁷ For references to all these, see Ilan, above, n. 15.

¹⁸ Tcherikover/Fuchs/Stern 1961, 80–81.

¹⁹ LSJ s. v. *ιατρός*.

wife.”²⁰ A similar approach to these terms can be found in the work of many ancient authors. Josephus, in his *Autobiography* (*Vita* 185) records a warrior who went by the name “Joseph son of Iatrine” All the translations that I have seen designate him “son of the midwife.” But in Greek there is another term for midwife: *μαῖα*, and on a fourth century BCE epitaph from Athens a woman – Phanostrate – is described as both midwife (*μαῖα*) and physician (*ιατρός*).²¹

Since the 1978 groundbreaking article of Sarah Pomeroy, “Plato and the Female Physician,”²² there is no argument anymore: there were active women physicians in antiquity and their professional knowledge was not limited to midwifery. This can be indicated foremost by the writings of Galen himself and in the following lines I will base myself mainly on an article published in 2012 by Holt N. Parker, with the name “Galen and the Girls: Sources for Women Medical Writers Revisited,” which I have found especially useful in foregrounding the Salome of our text.

Parker begins by stating: “Nearly all the references to women in the practice of medicine in medical writings come from Galen. Furthermore they are limited to his large pharmacological works.”²³ In other words, if, as I argue, Salome is indeed a woman physician, she is found here in good company. She is cited by Galen and in his pharmacological writings.

Parker proceeds to list the women Galen cites, stating: “Galen gives recipes from Antiochis and Cleopatra (attested elsewhere) and is our sole source for Eugerasia, Originea, Samithra, Spendusa and Xanite.”²⁴ In this article Parker’s objective is to show that when Galen cites a woman, she is not a lesser authority. Obviously, over thirty years after Pomeroy’s article appeared in print, Parker is writing in response to a backlash of scholars who concede that women probably practiced medicine but argued that they did not write about it. Parker wrote: “though the fact that women *practiced* medicine in the ancient world is clear, there seems to be a certain reluctance to accept that women *wrote* about medicine in the ancient world.”²⁵ In other words, they were less scientists than healers.

In support of his thesis, which contradicts this claim, Parker compares the way Galen introduces the recipes of the (near anonymous) women physicians and the way he introduces the recipes of the world-renowned male ones, and shows that there is in fact no difference. He wonders, therefore, why anyone would think that women were not cited by Galen in the same way that men were. He concludes that, “[t]his is an important methodological point: feminine names are subject to

²⁰ *Ibid.*, s. v. *ιατρίνη*.

²¹ See Kirchner 1940, 480, no. 6873.

²² Cf. Pomeroy 1978, 496–500, where she argued that “Plato did not have to prove women’s aptitude for the medical profession. On the contrary, his case rests on the actual existence of female physicians in Athens of his own day.”

²³ Parker 2012, 360.

²⁴ *Ibid.*, 365.

²⁵ *Ibid.*, 360.

a level of disbelief that is never visited on male names. Yet why should this happen, unless one is beginning from the (unstated) premise that there were no women practicing medicine?"²⁶

Yet, with all his enthusiasm for and trust in the existence and success of women physicians, Parker too has missed Salome altogether. I doubt though that he would agree with Stern that this is a medicine named after the queen. Parker, like me, does not believe that, just because a certain name is shared between a queen and a physician, they are one and the same person. Concerning one of the most prominent female physicians mentioned in the writings of Galen – a Cleopatra – he writes:

The name Cleopatra creates a problem for some, but there is nothing to show that the first name that leaps to our minds leapt to Galen's. Instead, there is good reason not to identify the medical author with the famous queen of Egypt. The name is one of the most common, and no source identifies the medical writer with the queen before Aetius in the sixth century. Galen never does so. He knows, of course, all about the Egyptian queen and famously describes her death by spitting-cobra bite (*Ther. Pis.* 8, 14.235). It would be odd, if he thought that these recipes came from so interesting a source, that he made no mention of it.²⁷

The attitude of Aetius of Amida mentioned in this citation, a Christian physician of the 6th century's, though, is typical of male scholars from Late Antiquity to these days, who simply do not believe that there were such professional women. Yet Aetius himself, in the end, fell victim to the same sort of interpretation as he applied to this Cleopatra. Or in Parker's words:

Certain other names of women writing on medical matters have been subject to suspicion. So Dean-Jones on the Aspasia quoted at length by Aetius: "when Aetius attributes several chapters on gynecological matters to Aspasia, the famous companion of Pericles in the fifth century BC, it is probable the attribution is apocryphal ...

On these words of Lesley Dean-Jones (from her book *Women's Bodies in Classical Greek Science*) Parker comments:

It is just assumed that Aetius must be thinking of the Aspasia best known to us. However, Aetius nowhere makes such an identification. Aspasia is also quite a common name (as is the masculine, Aspasius), and there is no reason to presuppose that Aetius could only have been thinking of Pericles' Aspasia.²⁸

What Parker identified here is, I had argued more than a decade ago in my book *Silencing the Queen*, part of a phenomenon I called "unification": where there is a variety of women who left an imprint in the writings of the ancients, some of

²⁶ *Ibid.*, 380.

²⁷ *Ibid.*, 379.

²⁸ *Ibid.*, 380. I have identified a similar phenomenon in my book, *Mine and Yours are Hers*, where the tendency we identify in the Babylonian Talmud to create family relationship of prominent women with sages, was later applied by modern scholars to a prominent woman and a sage, making them husband and wife. See Ilan 1997, 129.

them bearing the same name, the sources identify them one with the other. The best known example is the identification of a plethora of Marys mentioned in the New Testament with one woman. The result is that, even though it is true that fewer women than men became physicians in antiquity, just as fewer women became scholars or leaders in general, contemporary scholars end up recognizing fewer prominent women than our sources actually preserve. It seems that Galen's Cleopatra suffered in scholarship over the centuries the same fate as his Salome. Menahem Stern, who identified the physician Salome as a medicine named after a queen, went down the same well-trodden path as the ancient physician Aetius, who identified the physician Cleopatra with the queen of the same name.

I end this section with another quote from Holt Parker's insightful article:

The problem, therefore, is simply the old problem of women in the canon. It is hardly surprising that women poets turn up less often in the *Greek Anthology* than men: there were fewer of them. It is hardly surprising that women doctors are cited less often than male: there were fewer of them. What is interesting is that they are cited at all. The real question before us is why any of these women's names were preserved in the first place. The majority of recipes in Galen and his sources are anonymous. It would have been easy for Galen or Andromachus or Asclepiades to have stripped away the names from the headings.²⁹ That they did not do so tells us that at least a woman's name was no detriment to a recipe's acceptance and that a woman's name could serve as a pedigree for a compound as well as a man's.³⁰

2. Other female physicians

Having, I hope, established the professional credentials of Salome, I will proceed to show that not only Salome but also other female Jewish physicians can be found in our literary corpus. Let us then retrace our steps. For what is Salome famous? She is recorded as having provided Galen with an alternative recipe and alternative clients for a certain medicine which he knew. He thought it was good for soft skin. She told him it was also beneficial for extreme pains and throat and rib aches. She also told him how the last of these ailments should be treated with this medicine: with a cupping instrument. In other words, her field of specialty is pharmacology, which is also the field of other female physicians named by Galen. Nearly all the references to women in the practice of medicine in the medical writings of Galen are limited to his pharmacological works.

Moving to rabbinic literature, we find at least two women in similar capacities. I want to first show this phenomenon in a Palestinian Jewish context, with reference to a certain woman named Timtini, about whom I have spoken and

²⁹ For the rabbis doing just that for the woman scholar Beruriah, see Ilan 1999, 176–180.

³⁰ Parker 2012, 383.

written in the past.³¹ The story of Timtinis is quickly told. She nursed Rabbi Yohanan (2nd–3rd centuries) for an eye disease³² with a certain pharmacological concoction, and when the rabbi revealed her secret recipe to the rabbinic academy on Shabbat, she committed suicide. Of course, the purpose of this story is to say something about the relationship between male rabbis and women physicians and about the ownership of knowledge and the power that comes with it. However, in the context of female physicians whose pharmacological recipes Galen used, the detail concerning the recipe and list of ingredients which Timtinis supplied to Rabbi Yohanan is of greater interest because of its similarity to the medical recipe provided by Salome, and indeed other female physicians, to Galen. Here it is:

Take seeds of palm dates (some say Nicolaus dates) split in half and roasted and pounded together with barley husks and the dry excrement of a child. Pound together and smear (on the infected eye). (y. Shabbat 14:4, 14d).

There seems to me little doubt that this recipe displays some similarities with medical recipes like the one provided by Salome and discussed above: the ingredients of the medicine are listed, then the method of production is described, and finally the form of its application is prescribed. Yet unlike in Galen's work, where the primary topic is medical recipes and their properties, in this story medicinal properties are secondary and incidental. The issue at hand is healing on Shabbat and what is considered a life-threatening situation, which needs to be treated on this holiday.

Yet recipe-books like Galen's seem to have circulated among the rabbis, and a fragment of one such book is preserved in the Babylonian Talmud.³³ It is found in Tractate *Gittin*, folios 67b–70b. I present here a sample of the recipes therein, in order to demonstrate their similarity to those found in the writings of Galen:

To stop blood coming from the mouth he should be tested with a wheat straw. If the blood sticks, it comes from the lungs and can be cured, but if not, it comes from the liver and cannot be cured ... If it comes from the lung, there is a remedy for it. What is the remedy? Let him take seven handfuls of hashed beets and seven handfuls of mashed leeks and seven handfuls of jujube berry and three handfuls of lentils and a handful of *kamuna* and a handful of flax ... and let him cook the mixture and eat it, washing it down with strong beer made in [the month of] Tebeth ... For swollen glands, Rabbi Yohanan said: Pellitory leaves are as good as *mamru* and the root of pellitory better than *mamru*, and he should put them in his mouth. This is to prevent it from spreading. To soften it, he should take bran that came to the top of the sieve and lentils with the earth still on them and clover and hemlock flower

³¹ See Ilan 2006, 167–172.

³² I assume this from context. For a different interpretation, associating it with a mouth disease, see Lehmhaus 2017. In this piece Lehmhaus also discusses other aspects of this tradition.

³³ On this text, see Geller 2000. Cf. also Freeman 1998/99. For the structure of the seventh chapter of *Gittin* and the discursive framing of the 'book of remedies', see Lehmhaus 2015, esp. 83–93. I thank Lennart Lehmhaus for these references.

and the bud of *cuscuta*, and he should put about the size of a nut in his mouth. ... This is effective (b. Gittin 69a).

It seems to me that the formal similarity of these recipes to the recipes in Galen is obvious: first the ailment is described (bleeding from the mouth, swollen glands); next the patient is tested in order to understand the source of the ailment and in order to decide what cure may be effective; then the various ingredients and sometimes their quantities are supplied; then the preparation is described; and finally, the method of application is given. There is also a named authority associated with the medicine and, as in many of Galen's recipes, it ends with the word: "this is effective" (דמעלי ליה), much like the "suitable" (σὺμφορος) we saw in Galen's reference to a recipe from Gaius of Naples.³⁴

A small aside: I have intentionally chosen these recipes from this hand book because, like Galen's recipes, they straightforwardly define the illness, provide the ingredients, and state the form of preparation and application. I could have cited ones which instruct a person to whisper something while eating the medicine, or to eat it in a propitious hour, or to perform some other ritual. These are found in abundance in the *b. Gittin* medical book and show that the boundaries between what we call medicine, or pharmacology, and what we call magic were very fluid in the eyes of the Babylonian rabbis. Galen refrains from citing such instructions, but this is the topic of another paper, which is also very gendered.³⁵

Going back to our pharmacological catalogue in Tractate *Gittin*, it is perhaps pertinent to note that aside from the numerous male authorities mentioned therein, like Rabbi Yohanan mentioned in the text cited above, there is also one female authority mentioned twice in it and she is also the person who opens the entire catalogue:

Abbaye said: Em told me (in feminine: אמרה לי אם) that for a sun-stroke the remedy is, on the first day, to take a jug of water, [if it lasts] two days, to let blood, [if] three days, to take red meat broiled on the coals and highly diluted wine. For a chronic heat stroke ... one should eat leeks and go down and stand in water up to one's neck till faint and then swim out and sit down (b. Gittin 67b).

And further down:

What is *ahilu*? ... Abbaye replied: A burning in the bones. What is the remedy for it? Abbaye said: Em told me that all medicines are to be taken either three days or seven or twelve, but with this he must go on till he is cured. All other medicines must be taken on an empty stomach; this one, however, [is different]. After he has eaten and drunk and relieved himself and washed his hands, they must bring him a handful of *shatitha* with lentils and a handful of old wine and mix them together, and he must then eat it and wrap himself in his

³⁴ More on Galen's efficacy phrase and its similarity to Akkadian formulae see van der Eijk 1997; Steinert 2015. I thank Lennart Lehmhaus for these references.

³⁵ See also Ilan 2004.

cloak and sleep, and he must not be disturbed till he wakes of himself. When he wakes he must remove his cloak, otherwise the illness will return (b. Gittin 70a).

Em (= "mother" in Hebrew) is a seasoned medicinal practitioner in the Babylonian Talmud, perhaps the most seasoned one. She is mentioned at least 25 times throughout the entire composition, transmitting various recipes.³⁶ Much has been written about her.³⁷ I want to emphasize two things about Em here.

1. Who is Em? While it is true that all these traditions are cited by Abbaye, always in the same formula: "Em told me" (אמרה לי אם), it is incorrect to translate this phrase, as for example in the Soncino translation, as "Abbaye's mother." My claim can be shown from the *Bavli* itself, which states:

"Rabbi Yohanan's father died when his mother was pregnant, and at birth his mother died. And so too Abbaye. Is that so? Does Abbaye not say: Em (mother) told me? She was his מרבינתיה" (b. Qiddushin 31b).

I have intentionally not translated the last word because it is an interpretative crux. The Soncino Talmud, for example, translates it "That was his foster-mother," and many follow in its footsteps. But as far as my Aramaic reaches מרבינתיה means she was his teacher. A quick glance at Jastrow's dictionary here is instructive. For the male מרבינא the translation is "educator, teacher." For the female מרבינתא the translation is "nurse, foster mother" but the only proof-text offered is a reference to the story here.³⁸ This should remind the reader of what we saw above regarding the translation of *iatros* and *iatrine* in the Liddell & Scott Greek dictionary (male "physician" – female "midwife"). Here again, this is not what the ancient Aramaic term meant, but how it has been translated over the generations in order to belittle the woman, beginning with Rashi, who explains the term מרבינתיה as אומנת, which really does mean nurse.

2. Is she nameless? All scholars who translate "Em" as Abbaye's mother, or foster-mother, assume that *Em* is an epithet, derived from the scholarly status of her son (or foster-son). By doing so, they are making her nameless, just as is often the case in our sources. A woman whose name was *Matrona*, is assumed to have been so called because she was a Roman (non-Jewish) matron, although from my onomastic studies it is now obvious that the name *Matrona* in the time of the creation of rabbinic literature counted among the ten most popular female names for

³⁶ 1–4: b. Shabbat 66b; 5–12: b. Shabbat 134a; 13–14: b. Eruvin 29b; 15: b. Eruvin 65a; 16: b. Yoma 12b; 17: b. Mo'ed Qatan 18b; 18: b. Yevamot 25b; 19: b. Ketubbot 10b; 20: b. Ketubbot 39b; 21–22: b. Ketubbot 50a; 23: b. Gittin 67b; 24: b. Gittin 70a; 25: b. Avodah Zarah 28b. She is mentioned also in other contexts but not as a transmitter of recipes, and there is a debate, whether it is the same woman (b. Berakhot 39b; b. Menahot 68b).

³⁷ I cite here only the most comprehensive discussion, within the context of gender studies: Fonrobert 2000, 151–159; Valler 2000, 161–172. On her recipes, see Veltri 1997, 230–238.

³⁸ Jastrow 1926, 835.

Jewish women.³⁹ Other such examples exist, but I will leave it at that. In fact, making this woman nameless and attached to a male sage is very similar to another phenomenon we saw above regarding Salome. I had designated it “unification,” namely, rendering her a mere reflection of the queen she is called after. It is part of a process whereby women are rendered invisible. The truth is, however, that the woman here has a name. It is “Em.” As we now know from the hundreds of incantation bowls that have been published, and are even now being published from Mesopotamia, it is obvious that the name *Imma*, and its plethora of derivatives (including *Em*) was the most popular female name for Jewish women in those regions.⁴⁰ *Em* was thus a physician – a pharmacologist if you like – with a good Jewish name. Abbaye may have learnt with her, or even inherited her recipe book. It is not good for medicinal recipes not to be written down since human memory is so traitorous.

3. Conclusion

So, I conclude – in search of Jewish women physicians we have moved from non-Jewish to Jewish sources and from Pergamon of the Greek physician Galen to Palestine and finally to Babylonia of the Talmud. In all three places, we found women physicians who specialized in pharmacology. They are recorded in each of these compositions in almost exactly the same way: as an authority on a certain medicine (or medicines), its/their properties, its/their preparation and its/their administration. I suspect that this array of sources shows us something about the *realia* of the time in which these literatures have been produced. We also had a chance to see how this *realia* has caused disbelief among the transmitters of these traditions almost since the time they were first written down. Each of these women has been subject to a form of silencing. Much of my research has been devoted over the years to the identification of what can still be salvaged from the time of the composition, despite the effective and enduring character of these silencing processes.

Bibliography

- Bliquez, Lawrence J. 2014. *The Tools of Asclepius*. Leiden: Brill.
 Eijk, Philip J. van der 1997. “Galen’s Use of the Concept of ‘qualified experience’ in his Dietetic and Pharmacological works.” In *Galen on Pharmacology: Philosophy, History and Medicine*. Edited by Armelle Debru. Leiden: Brill. Pages 35–57.

³⁹ On this woman see Ilan 1994. On this being one of the ten most popular names, see Ilan 2012 (*Lexicon of Jewish Names in Late Antiquity Part 2*), 47.

⁴⁰ Ilan 2010 (*Lexicon of Jewish Names in Late Antiquity Part 4*), 409–412. For the form “Em” (אם), see now Peuch 2012, 249, recording a man by the name: חכם בר אם.

- Fabricius, Cajus 1972. *Galens Exzerpte aus älteren Pharmakologen*. Berlin: De Gruyter.
- Fonrobert, Charlotte E. 2000. *Menstrual Purity: Rabbinic and Christian Reconstructions of Biblical Gender*. Stanford: Stanford University Press.
- Freeman, David. 1998/99. "The Gittin 'Book of Remedies'." *Korot* 13: 151–164.
- Geller, Markham J. 2000. "An Akkadian Vademecum in the Babylonian Talmud." In *From Athens to Jerusalem: Medicine in Hellenized Jewish Lore and in Early Christian Literature*. Edited by Samuel Kottok and Manfred Horstmannshoff. Rotterdam: Erasmus Publishing. Pages 13–32.
- Ilan, Tal. 1991/92. "Ossuary Inscriptions from Jerusalem." *Scripta Classica Israelica* 11: 149–159.
- Ilan, Tal. 1994. "Matrona and Rabbi Jose: An Alternative Interpretation." *Journal for the Study of Judaism* 25: 18–51.
- Ilan, Tal. 1997. *Mine and Yours Are Hers: Retrieving Women's History from Rabbinic Literature*. Leiden: Brill.
- Ilan, Tal. 1999. *Integrating Women into Second Temple Judaism*. Tübingen: Mohr Siebeck.
- Ilan, Tal. 2002. *Lexicon of Jewish Names in Late Antiquity Part 1: Palestine 330 BCE–200 CE*. Tübingen: Mohr Siebeck.
- Ilan, Tal. 2004. "Cooks/Poisoners; Healers/Killers; Religion/Witchcraft: Jewish Women's Religious Life at Home." In *Haushalt, Hauskult, Hauskirche: Zur Arbeitsteilung der Geschlechter in Wirtschaft und Religion*. Edited by E. Kinger, S. Böhm and T. Franz. Würzburg: Echter. Pages 107–123.
- Ilan, Tal. 2006. *Silencing the Queen: The Literary Histories of Shelamzion and Other Jewish Women*. Tübingen: Mohr Siebeck.
- Ilan, Tal. 2010. *Lexicon of Jewish Names in Late Antiquity Part 4: The Eastern Diaspora 330 BCE–650 CE*. Tübingen: Mohr Siebeck.
- Ilan, Tal. 2012. *Lexicon of Jewish Names in Late Antiquity Part 2: Palestine 200–650*. Tübingen: Mohr Siebeck.
- Jastrow, Marcus. 1926. *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi and the Midrashic Literature*. New York: Putnam.
- Kirchner, Johannes. Ed. 1940. *Inscriptiones Graecae II & III (editio minor)*. Berlin: De Gruyter.
- Kühn, Karl. G., Ed. 1827. *Claudii Galeni Opera Omnia* 13. Leipzig: Car. Cnoblochii.
- Lehmhaus, Lennart. 2015. "Listenwissenschaft and the Encyclopedic Hermeneutics of Knowledge in Talmud and Midrash." In *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Edited by J. Cale Johnson. Berlin/Boston: De Gruyter. Pages 59–100.
- Lehmhaus, Lennart. 2017. "'Curiosity Cures the Reb': Studying Talmudic Medical Discourses in Context." *Ancient Jew Review, Ancient Medicine: An AJR Forum*. Published on October 11, 2017. Online: <http://www.ancientjewreview.com/articles/2017/10/2/curiosity-cures-the-reb-studying-talmudic-medical-discourses-in-context>.
- Liddell, Henry G., and Scott, Robert. N. d. *Greek-English Lexicon*. Cited 2 June 2020. Online: <http://www.perseus.tufts.edu/hopper/resolveform?redirect=true>.
- Mattern, Susan P. 2013. *The Prince of Medicine: Galen in the Roman Empire*. Oxford: Oxford University Press.
- Nicholls, Matthew C. 2011. "Galen and Libraries in the Peri Alupias." *Journal of Roman Studies* 101: 123–142.
- Parker, Holt N. 2012. "Galen and the Girls: Sources for Women Medical Writers Revisited." *Classical Quarterly* 62: 359–386.

- Peuch, Émile. 2012. "Cruche magique en arameén babylonien." *Classica et Semitica* 5: 249–259.
- Pomeroy, Sarah B. 1978. "Plato and the Female Physician (*Republic* 454d2)." *American Journal of Philology* 99: 496–500.
- Steinert, Ulrike. 2015. "'Tested' Remedies in Mesopotamian Medical Texts: A Label for Efficacy Based on Empirical Observation?" In *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Edited by J. Cale Johnson. Berlin/Boston: De Gruyter. Pages 103–145.
- Stern, Menahem. 1980. *Greek and Latin Authors on Jews and Judaism, Volume II*. Jerusalem: The Israel Academy of Sciences and Humanities.
- Tcherikover, Victor, Alexander Fuchs, and Menahem Stern. 1961. *Corpus Papyrorum Judaicarum* 2. Cambridge, MA: Harvard University Press.
- Totelin, Laurence M. V. 2012. "'And to end on a poetic note': Galen's Authorial Strategies in the Pharmacological Books." *Studies in History and Philosophy of Science, Part A* 43,2: 307–315.
- Valler, Shulamit. 2000. *Women in Jewish Society in the Talmudic Period*. Tel Aviv: Hakibbutz Hameuchad. (Hebrew)
- Veltri, Giuseppe. 1997. *Magie und Halakha: Ansätze zu einem empirischen Wissenschaftsbegriff im spätantiken und frühmittelalterlichen Judentum*. Tübingen: Mohr Siebeck.

Caesarean Section in the Talmud

A Renewed Examination of a Historical Enigma

SAMUEL S. KOTTEK

ABSTRACT: This contribution revisits ancient sources that may indicate the acquaintance of people in (late) antiquity with the surgical practice known in Western (medical) languages as Caesarean section, or C-section. Most of the pre-modern references across various cultures are limited to mythological and other narrative accounts (e.g., folktales); attestations of surgical interventions by doctors or in medical literature are rare. In rabbinic literature, one finds the label **יוצא דופן** (*yoše dofen* ‘exiting through the wall’) used to designate a child that is not born the natural way – namely, through the vaginal birth channel. Still, even this label remains ambiguous and is enmeshed in a complex religious and legal (halakhic) discourse. Using a comparative approach, the contribution demonstrates that Caesarean section was performed on women who died in childbirth in various ancient cultures and was known to the rabbis from cases of medical emergencies or capital punishment. It is argued that Talmudic discussions of Caesarean section involving a living woman were merely a theoretical construct, induced by the legendary stories and then directed toward the halakhic debate, focusing in particular on the rights of the firstborn.

The issue of caesarean section in antiquity is indeed enigmatic.¹ The very designation *caesarean section* in European languages is highly problematic. According to a popular etymology that originated with Pliny, the operation derives its name from the Latin word *Caesar*.² It was believed that Julius Caesar had been born by an operation performed on his (dead) mother, Aurelia, although she in fact lived many years after his birth. There are instead several possible etymologies, the simplest being a derivation from the Latin *caesare*, “to cut out.”

The Hebrew name used in the Talmud for the operation, *yoše dofen* (**יוצא דופן**), is quite matter-of-fact; it means “coming out through the wall (of the abdomen).” The central problem of *yoše dofen* is whether caesarean section on a living mother was performed in Talmudic times, as it seems, at first view, to have been even in the Mishnaic period. The Mishnah was compiled between the second century

¹ I wish to thank the anonymous reviewers for their sensible remarks, my close collaborator Helena Paavilainen, who helped me through the revision. And in particular Dr. Lennart Lehmhaus, whose dedicated contribution regarding editorial matters, bibliography and transliterations was most appreciated.

² Pliny the Elder, *Naturalis historia* VII, 7 (Bostock and Riley 1855).

BCE and the beginning of the third century CE. The (Babylonian) Talmud was completed in the sixth century. In any case, caesarean section on a woman who died in childbirth was practiced in ancient times, even before Mishnaic times.³

We shall first consider caesarean section on a woman who died in childbirth, in the Talmud and in other cultures, and then consider in depth the more complicated problem of an operation on a living woman.

1. On Women Who Died in Childbirth

The Mishnah (m. Arakhin 1:4) does not mention any surgical intervention at all but is concerned with what happens to the unborn child of a woman who is sentenced to death.

האשה שיצאה ליהרג אין ממתינין לה עד שתלד אשה שישבה על המשבר ממתינין לה עד שתלד.

If a woman is about to be executed, they do not wait for her until she gives birth. But if she had already sat on the birthstool, they wait for her until she gives birth.⁴

The Babylonian Talmud also commences with a commentary on the circumstances of a pregnant woman right before her execution. The authors made clear that the fetus is not considered the property of the father or husband, but that mother and child are treated as a linked unit. Then the text turns to the case of a woman who has already entered into labor. We read (b. Arakhin 7a):

ישבה על המשבר וכו': מ"ט כיון דעקר גופא אחרינא הוא.
אמר רב יהודה אמר שמואל האשה היוצאה ליהרג מכין אותה כנגד בית הריון כדי שימות הוולד תחילה
כדי שלא תבא לידי ניוול

Regarding [the Mishnah's ruling about] "But if she had already sat on the birth stool" etc., what is the reason for this? Because once the [unborn child] has been uprooted [from its mother's womb/body] it becomes an independent body. Rav Yehuda said in the name of Shmuel: If a [pregnant] woman is about to be executed, one strikes her across the "house of pregnancy" (i. e. the abdominal region where the womb is located), so that the unborn child dies first and she will not suffer from disgrace.

The Talmudic passage continues with some deliberations about how the sequence of death – who dies first, the mother or the baby – would affect rabbinic inheritance law. Only after this discussion do the compilers return to the woman who is already on the birthing stool (b. Arakhin 7a–b): "Rabbi Naḥman said in the name of Samuel: If a woman dies on the birthing stool, [even] on the Sabbath day, one will bring a knife, cut (open) her abdomen and take out the child." Unfortunately, the Talmud provides no further information here about the surgery, the medical techniques used, or other relevant details. Quite the contrary, the passage continu-

³ On caesarean section in the Talmud, see Preuss 1978, 420–426.

⁴ The translations of the Mishnah are based on the edition by Albeck 1988.

es with a discussion about which rules for the Sabbath are desecrated by carrying and using the knife for this operation. Furthermore, they question whether this is, indeed, a case of medical emergency when several halakhic rules including Sabbath laws are suspended for the purpose of “saving a life” (*pikuaḥ nefesh*). So, one has to stick to the few details mentioned in this brief description.

Mar Samuel (third century) was one of the most prestigious rabbis of the first generation of Amoraim; he was also an expert in medical knowledge. He headed the rabbinic academy of Nehardea. However, it is nowhere stated that he performed caesarean section himself.⁵ Such a rule implies that the rabbis considered it at least possible to save the life of the baby; if not, this would mean desecrating a dead body, which is prohibited by the law.

Interestingly, the *Shulḥan Arukh*, a sixteenth-century law code, quotes from the Talmud but adds: “but nowadays this is prohibited, for we are no more experts.”⁶ The reason for the prohibition is clear: In the sixteenth century, neither rabbis nor physicians were able to determine with certainty the moment of death, so there was no real hope to save the unborn child. Waiting until the signs of death were clearly apparent would not leave any hope of success. We cannot discuss within the scope of this contribution the fact that the Talmudists thought, some ten centuries earlier, that they had some hope of saving the child’s life.⁷ It may be surmised that they gathered information about cases where children had survived, but no documentation has reached us.

2. Caesarean Section in Non-Jewish Sources

In Greek culture, we can find two cases of caesarean section in mythology. The first case involves Dionysos (Bacchus), the son of Zeus (Jupiter) and Semele, the daughter of King Kadmos of Thebes. One story tells how Semele dies in childbirth, but Zeus rescues the unripe fetus and grafts it into his own thigh, from which the child is finally born and becomes a deity. In the second, Asklepios (Aesculapius) is born to Hermes (Apollo) and the nymph Coronis. Coronis is killed and burned, but Hermes saves the child and brings him to the centaur Chiron, who teaches him medicine.⁸ It is striking that the god of medicine is born from caesarean section and that Hermes becomes the patron of caesarean sections among the Greeks.

⁵ On Mar Samuel as a physician, see Rosner 1977.

⁶ For *Shulḥan Arukh*, Oraḥ Ḥayyim 330, 5 and the gloss of Rabbi Moses Isserles *ad loc*, see Rosner and Bleich 2000, 319.

⁷ The rabbis no doubt knew that the operation must take place at once after the mother’s death, but the slightest hope of saving the child was enough to allow the section.

⁸ On these two mythological births, see Zeitlin 2002.

In Roman culture, we find two references to caesarean section on mothers who died in childbirth. One dates to the beginning of Roman history: Numa Pompilius (ca. 715–672 BCE), the second king in Rome, originally a Sabin, ruled in a *Lex regia* that in such a case the child must be taken out of the womb and, if it dies or is already dead, should be buried at the side of its mother.⁹ The second involves reference to the same process among the rules decreed by Justinian (527–65 C. E.).

In Hindu lore, we learn in some sources that Buddha was born from the right side of his mother, Maya. A hymn of the *Rig Veda* about the birth of the deity Indra says that Indra refused to enter this world in the usual way. He declared his intention to burst through his mother's side.¹⁰ It says that all the mighty individuals are born that way.¹¹ This was obviously thought to be an uncommon delivery.

In Persian lore, the birth of the hero Rostam from his mother, Rudabeh, is featured in the poetic work *Shahnameh* (*The Book of Kings*), dating to the tenth century. The mother goes through difficult labor due to the size of the child. The father, Zal, summons the simurgh, a bird similar to the phoenix. The bird then instructs the surgeon how to perform the section. In this case, the mother and the child survive.¹²

In Scandinavian lore, we find the *Saga of Völsung*, a similar story. Renir, the king of Hunaland, and his wife are childless. Finally, with divine help, the woman becomes pregnant. After six years of pregnancy, however, she requires help in delivering the child, who is extracted "through the wall." As expected, she dies. The child, Völsung, kisses his mother before she dies and later becomes a famous warrior.¹³

Caesarean section is also known in various African tribal cultures but figures mostly in legends or myths told by shamans or popular storytellers, similar to the above-mentioned cases in Greek, Indian, Persian and Scandinavian lore. In some African tribes, there is even a legend according to which, in ancient times, all pregnant women were operated on in order to deliver their children until they came to understand that childbirth could (should) be naturally spontaneous. This tale seems to show that women were seen in these tribes primarily as a source for children, like trees bearing fruit, even when harvesting the fruit caused in most cases the loss of the tree. The status and purpose of women as child bearers, as in ancient Greek discourse, or questions on bodily dependence and personhood, similar to the Talmudic account, that are implied in these African traditions cannot be

⁹ Ploss, Bartels, and Bartels 1936, 82: "It is not permitted to bury a woman who died while being pregnant, without first extracting her [ripe] offspring." The Justinian Code (fifth century) simply quotes from these ancient laws.

¹⁰ *Rig Veda*, mandala 4, hymn 18 (Griffith 1896): "Hard is the passage. Forth from the side obliquely will I issue."

¹¹ For more details on these non-Jewish sources, see Quecke 1952 and Young 1944.

¹² Ferdowsi 2007, 189.

¹³ *The Story of the Völsungs and Niblungs* (Magnusson and Morris n. d.).

discussed here due to my different focus. According to Kurt Quecke, stories about birth “through the wall” were told not only among the Unyoro tribe of east Africa, but also in the Santa Cruz archipelago, New Zealand, in eastern Brazil by Indians, and in the Bhandara district of India.¹⁴

The fact that all these cases are legendary shows us two different things. First, the idea of birth “through the wall” was present in several cultures, and very early on. Second, such a way of birthing was, and remained, an extraordinary process. Caesarean section was understood as the metaphysical emergence of a god, a prophet, or a hero. It could be achieved only by metaphysical agents and for eminent, outstanding individuals. Summing up this review of ancient non-Jewish sources, I would like to stress the relevance of the Roman laws regarding the death of a pregnant woman during, or close to childbirth. The other sources show us that the idea of being born “through the wall” was ubiquitous. However, even if the concept was widely documented, the practice of the operation was not performed by surgeons – in other words, it was not a natural operation.

3. Back to the Talmud

The fate of an unborn child is also considered by the rabbis of the Mishnah and the Talmud in the passage preceding the actual reference to the surgical intervention, where the case of a pregnant woman condemned to the death penalty is discussed. The sentence must be applied even in a state of pregnancy, because the fetus was considered part of the woman’s body. However, if she is already sitting on the birth-stool – or, others say, when some part of the child’s body has appeared – then the sentence is postponed until the child is born.¹⁵ The rabbis knew, of course, that the fetus receives its nourishment from its mother only through its navel, until it is born and the umbilical cord is severed.¹⁶ It is therefore logical to consider the fetus as being part of its mother during pregnancy.¹⁷ Julius Preuss suggests that this case of a pregnant woman being sentenced to death was most probably theoretical. The Talmud often considers extreme cases, which are situated beyond the common limits of jurisdiction.¹⁸

¹⁴ Quecke 1952, 4709. These sources will not be considered here in detail.

¹⁵ See m. ‘Arakhin 1,4 and t. ‘Arakhin 1,4. In the Tosefta, it says that, even if the child only stretched its hand out of the womb, the sentence is postponed until the child has been born. Cf. the edition by Zuckerman 1970 ad loc.

¹⁶ This can be documented in *Midrash Shir haShirim* 7,3.

¹⁷ See the study by Steuer 2008.

¹⁸ Preuss 1978, 421. In the Amoraic period, death sentences could no longer be carried out by Jewish courts; there was no Sanhedrin, either in Judea or in Babylonia.

4. Caesarean Section on Living Women

In antiquity, the performance of caesarean section on living women was only mentioned in myths or folk tales. Yet there is a striking example in an African tribe of a caesarean section performed on a woman, with the outcome that both mother and child survived. The case was witnessed and described in minute detail in an 1884 case study by the Belgian physician-missionary Robert Felkin (1853–1926). The operation was performed in Kahura (Uganda) in 1879, on a woman aged about twenty. The incision was made along the *linea alba*, the child was extracted, then the uterus was contracted and the abdominal wound sutured; the wound was healed after eleven days. Another case was mentioned in Abyssinia by the English consul Walter Plowden (1820–60), but he was not a physician and no details were forwarded.¹⁹

The Talmud also mentions *yoše dofen* performed on living women, although it is questionable whether these are references to actual cases. The following (theoretical?) case is featured in b. Bekhorot 47b: “A woman had two children; the first was born through the wall; the second was born through the natural ways. Which one of them is considered as [having the rights of] a firstborn?”²⁰ This discussion is based on the biblical definition and on Mishnaic elaborations about who can be considered a firstborn son. The full definition of a firstborn is one who is the first child who has received “his father’s initial sexual potency” (in Hebrew, *reshit ono*) and has “opened for the first time his mother’s womb” (in Hebrew, *peter rehem*). In other words, in order to receive a double part of inheritance, a first-born child must have been born from his father’s first “power” (i. e., seed, see Deuteronomy 21:17) and also through the normal pathway. Moreover, the father must redeem his firstborn boy from a priest (Hebrew *kohen*), if the child was *peter rehem* as described in Exodus 13:2: *Consecrate to me all the firstborn, whatever [first] opens the womb among the children of Israel, ... it is mine.*²¹

The Mishnah’s authors sought to specify the biblical definitions in a lengthy ruling (m. Bekhorot 8:1) and they assumed four different scenarios:

יש בכור לנחלה ואינו בכור לכהן בכור לכהן בכור ואינו בכור לנחלה בכור לנחלה ולכהן ויש שאינו בכור לא לנחלה ולא לכהן

There is one who is [counted as] a firstborn [with respect to] inheritance but not with respect to redemption from a priest; a firstborn with respect to redemption from a priest but not a firstborn [with respect] to inheritance; a firstborn [with respect to both] inheritance and redemption from a priest; and a firstborn [in respect] to neither inheritance nor redemption from a priest.

¹⁹ *Linea alba* (the white line) runs down the midline of the abdomen. A median incision there causes no hemorrhage, for there are no blood vessels there. Cf. Felkin 1884.

²⁰ My translations of Talmudic passages are based on the Soncino edition of the Babylonian Talmud (Epstein 1935–1952).

²¹ The priest is the representative of holiness.

After several specifications of babies born after various other first births, including stillborn babies, an unborn extracted dead by embryotomy, birth of creatures not shaped like humans, or expelling of bodily tissues such as the placenta, the second Mishnah in this chapter (m. Bekhorot 8:2) adds:

יוצא דופן והבא אחריו שניהן אינן בכור לא לנחלה ולא לכהן ר' שמעון אומר הראשון לנחלה והשני לחמש סלעים

A fetus extracted by means of a caesarean section and one that follows is neither a firstborn for inheritance nor a firstborn to be redeemed from a priest. Rabbi Shimon says: the first is a firstborn for inheritance and the second is a firstborn as regards [the redemption] with five *sela* coins.

The relevant passage in the Babylonian Talmud (b. Bekhorot 47b) is occupied with linking the Mishnaic ruling in case of a *yoṣe dofen*/caesarean section back to the biblical definitions:

ראשון לנחלה לא (דברים כא, טו) וילדו לו בעינן, לחמש סלעים נמי לא (שמות יג, יב) פטר רחם בעינן. שני לנחלה לא (דברים כא, יז) ראשית אונו בעינן, לחמש סלעים נמי לא קסבר בכור לדבר אחד לא הוי בכור.

The first [son, born by caesarean section] is not [considered the firstborn] with regard to inheritance [as it requires fulfillment of the verse:] *And they have borne him children (Deuteronomy 21:15)*.

[Also] with regard to [the priestly redemption with] five *sela* coins, [the son born by caesarean section] is also not [considered the firstborn, as it requires fulfillment of the verse:] *Whatever opens the womb (Exodus 13:2)* [which he did not].

[Likewise], the second [son who follows him] is not [considered the firstborn with regard to inheritance, as it requires fulfillment of the verse:] *For he is the first of his strength, the right of the firstborn is his (Deuteronomy 21:17)* [which he is not but the one born *yotse dofen*]. [In addition,] he is also not [considered the firstborn with regard to the priestly redemption of five *sela* coins,] since [the Mishnah] holds: A firstborn in only one respect (i. e., he opened his mother's womb but is not her and his father's first child), is not considered a firstborn [with regard to redemption].

Accordingly, the Talmudic compilers explained the exclusion of both children born through a caesarean section and after it as follows: The first child was *reshit ono*, from the "first strength" of his father, but not *peter rehem*. While the second child was *peter rehem*, opener of his mother's womb, he was certainly not to be included in the category of *reshit ono*. Therefore, none of the two has the full rights of a firstborn. Again, it must be remarked that this story is not presented as a case history. It does not say: "It happened that a woman had two children" (*ma'aseh shehayah*) but is deeply embedded in a halakhic debate about various legal categories.

As mentioned above, the case is first briefly mentioned in the Mishnah (m. Bekhorot 8:2): "יוצא דופן והבא אחריו, שניהן אינן בכור, לא לנחלה ולא לכהן: [A baby born] through the wall, and the one who comes [is born] after him, none of the

two is a first-born, neither regarding heritage nor regarding [redeeming] from a priest.”

This brief statement in the Mishnah effectively says that neither the child *yotse dofen* nor the one who came after him (in normal childbirth) is a firstborn. Maimonides (1138–1204) wrote a commentary on this Mishnah.²²

מה שאפשר להיות בזה שתהא האישה מעוברת משני וולדות ונקרע דופנה ויצא אחד מהם ואחר כך יצא השני כדרך העולם, ומתה... אבל מה שאומרים המגידים שהאישה חיה אחר שקורעים דופנה, ומתעברת ויולדת, איני יודע לו טעם, והוא ענין זר מאד.

What may be understood here is that a woman was pregnant with twins. One had to be extracted through the wall, and the other was born in the normal way, and she died ... What storytellers say, that a woman is still alive after being delivered through the wall, becoming pregnant thereafter and giving birth, I can't understand. This [seems] to me very strange.²³

He was very puzzled by it: “This is very strange to me!” He finally imagined the following scenario: This woman was pregnant with twins. The first was too big and was extracted “through the wall.” The second was then born in the ways of nature. Maimonides adds: “and the mother died.” It did not make sense to him that a woman could be operated on, remain among the living, and then have another child. Such a case was unheard of in the twelfth century; there was no documented case of caesarean section performed on a living woman anywhere throughout the medieval world, at least to our knowledge.

As stated above, *yotse dofen* means literally “coming out of the wall,” here obviously the abdominal wall. The expression does not make explicit that it comes “out of the uterus through the wall.” Therefore, *yotse dofen* could be understood as a case of extra-uterine pregnancy, where the fetus can sometimes be born alive while being extracted through the abdominal wall, not from the womb. Ectopic pregnancy is not as rare as one would think; it happens in about 1 percent of pregnancies. The fetus can be located in the fallopian tube, in the ovary, or even in the abdominal cavity. If the fetus develops normally, and if it is extracted in due time, mother and child often live and thrive, at least in modern times. An unclear case of ectopic gestation was operated upon by Abulcasis in the tenth century; he extracted fetal bones from a suppurated abdominal cavity.²⁴ In modern England, there is an Ectopic Pregnancy Foundation, which took as its hero the surgeon-gynecolo-

²² Maimonides, possibly the most famous medieval Jewish author of religious and medical texts, who also was a practicing physician, compiled this work when he was still young, between 1145 and 1168, but he kept a critical eye on it for years, as he did for his magnum opus *Mishneh Torah*. The commentary to the Mishnah was originally written in Judeo-Arabic as *Kitab as-Siraj* (*The Book of the Lantern*) but was later translated into Hebrew by several translators, with a recent bilingual edition/translation by Rabbi Yosef Qafih.

²³ Maimonides, *Commentary to the Mishnah*, m. Bekhorot 8:2. The Hebrew follows edition available online at https://www.sefaria.org/Rambam_on_Mishnah_Bekhorot.8.2?lang=bi. The translation is my own.

²⁴ Abu al-Qasim al-Zahrawi (936–1013) was born near Cordoba (Spain). His work *Kitab al-Tasrif* was a milestone in the history of surgery. See Spink and Lewis 1973, 480–482.

gist Robert Lawson Tait (1845–99), who practiced laparoscopy and salpingectomy on ectopic pregnancies with relative success.

According to Michael Rawitzki, a *yotse dofen* is a child who has been born through a tear of the perineum of the mother. This is a quite rare event, although Rawitzki is right in his answer to Ludwig Kotelmann, who wrote that such a birth had not been documented even in animals; Rawitzki argued that Heinrich Adolph von Bardeleben (1819–95), who was professor of surgery in Greifswald and later became director of surgery at Charité Hospital in Berlin, had shown several such cases in animals.²⁵ An operation comparable to *yotse dofen* is also mentioned for animals in the Talmud. The newborn animal is called “the son of the ripped open [mother]” (in Hebrew, *ben pequ’ah*; cf. b. *Hullin* 74a). Although the animal mother was slaughtered in this case, it is similar to a caesarean section on the dead. There is even a case of a living animal that, for some unknown reason, was cut open in order to extract a ripe offspring (m. *Hullin* 4,5).

Without going into detail regarding the dispute between Rawitzki and Kotelmann, I would like to stress two things. First, it is remarkable that this extended exchange between Rawitzki and Kotelmann was published in the most renowned medical journal of the time in Germany, *Archiv für pathologische Anatomie und Physiologie und für klinische Medizin*, which was edited by the famous Rudolph Virchow (1821–1902).²⁶ The journal was founded in 1847. Although not himself Jewish, Virchow fought against anti-Semitism, worked with a number of Jewish colleagues, and was even able to read Hebrew. He was most probably personally interested in the discussed topic. Second, the conclusions of Preuss regarding the dispute about *peter rehem* and *yotse dofen* are somewhat elusive.²⁷ The first term clearly means “opening of the uterus,” whereas the second term means “comes out of the wall,” as stated above. On the other hand, it was accepted in other cultures as well that a baby extracted through the abdominal wall was not (normally) born.

5. Other Cases

There is another case in the Talmud, in which a woman allegedly gave birth to a child by caesarean section (here: *yotse derekh dofen*), and to a “fetus compresus” (in Hebrew, *sandal*) through the normal pathway (b. *Niddah* 26a).²⁸ I do not

²⁵ Rawitzki and Kotelmann were both physicians and Talmudists. References to the extended controversy are listed in Preuss 1978, 592.

²⁶ Virchow was very active in various fields, including pathology, biology (cellular biology), anthropology, public health, and even politics. When he initiated his journal (the *Archiv*), he clearly intended to open it to the widest possible range of medical research and observations. He was quite displeased when the different specialties began to produce their own journals.

²⁷ Preuss 1978, 425.

²⁸ On the *sandal*, see Dal Bo 2021.

agree with Preuss, who considered that this was a case of simultaneous intra- and extra-uterine pregnancies. A fetus can be compressed in only two ways: either by a twin embryo or by a (rare) case of superfetation. Superfetation occurs when a pregnant woman becomes pregnant again from a later cohabitation. Babylonian rabbis believed that this was impossible, whereas Palestinian authorities thought that it could happen within the first forty days of pregnancy.²⁹ It seems, therefore, that the two fetuses were in the womb, the first one was too big and was extracted and the very thin *sandal* came out normally. In other words, this is similar to the case of twins described in b. Bekhorot.

We find in b. 'Abodah Zarah 10b another story related to caesarean section, the case of Qeti'a bar Shalom. The name Qeti'a derives from the word *qatu'a*, another term meaning "cut out." Qeti'a was a Roman officer who defended the Jews before the king and was thrown in a furnace. His name, most probably given to him by the Jews after his death, means "the one [who was] cut down."³⁰ There is a curious comment in the medieval Talmudic commentary tradition of the Tosafot (*ad loc*), quoting from the tenth-century *Sefer Josippon*, about a king of Rome who reigned harshly.³¹ His mother had died in childbirth, at which point he was cut out from her bosom; he was called "Caesar" in Latin, which means "ripped out" in Hebrew, and all the following emperors were thus called after him. This comment seems to draw a parallel between the name Qeti'a and caesarean section. Medieval Talmudists were thus aware of the alleged derivation of caesarean section from the Roman Caesar. However, the term *yotse dofen* is not cited here by the Tosafot.

6. On the Later History of Caesarean Section in Childbirth

The first successful case of caesarean section on a living woman can hardly be called historical. It was allegedly performed by a Swiss sow-gelder called Jacob Nufer, in 1500, on his own wife. Mother and child survived. The fact that the woman allegedly had several additional children sheds obvious doubt on the veracity of this story, as well as the fact that it was first described in an early three-volume encyclopedia on obstetrics and gynecology by Caspar Bauhin, titled *Gynaeciorium* (1588), close to one century later.³²

²⁹ Preuss 1978, 386–387.

³⁰ Here, "cut down" does not mean that this Roman officer was born by caesarean section, although the comment of Tosafot is built on the analogy between his name and the process of *yotse dofen*.

³¹ *Sefer Josippon* was compiled in the south of Italy in the tenth century and was quite popular through the Middle Ages. Unlike Josephus, it comprises a brief history of Rome and Babylon, hence the quote in the Tosafot.

³² Bauhin 1588. It was based on previous works by Conrad Gesner and Caspar Wolff, to which Bauhin added additional texts.

François Rousset's *Traitté (sic) nouveau de l'Hysterotomotokie ou Enfancement Caesarien* was published in Paris in 1581.³³ The title page contains the following text (after the title):

Qui est l'Extraction de l'enfant par incision latérale du ventre & matrice de la femme grosse ne pouvant autrement accoucher. Et ce sans préjudicier à la vie de l'un, ny de l'autre, ny empescher la fécondité maternelle par après.

Which is the extraction of the child by opening the side of the abdomen and the uterus of the gravid woman whose childbirth is checked; this being performed without harming neither mother nor child and without hindering the mother's fecundity afterwards. (my translation)

Rousset writes that he had access to six cases of caesarean section, four of which were successful. He describes the operation in detail, although he did not perform it himself. Contemporary French surgeons, including Ambroise Paré, Jacques Guillemeau, and later François Mauriceau, were not convinced and thought that this operation could be successful only exceptionally. It was indeed very rarely practiced until the late seventeenth century. The Italian author Scipio Mercurio however, wrote a book, *La Commare o Raccoglitrice* (1596), that was addressed primarily to midwives and had a more positive approach.³⁴

In fact, the real problems were the following: First, the various obstacles to natural birthing were not yet clearly defined. Second, when childbirth became problematic, the midwives often waited too long before calling a surgeon, and the latter was often reluctant to operate. The birthing woman, therefore, became quite exhausted and was unable to withstand the pain and throes of an operation.

The caesarean section remained for a long time a dangerous operation. Heavy bleeding and peritonitis – an inflammation leading to infection of the peritoneum, a membrane that covers the abdominal organs – were frequent and often fatal to the mother until well into the nineteenth century. Another, less well-known fact is that suturing the uterus remained an unsolved problem until the accurate methods of two German gynecologists were published in 1882.³⁵

³³ Rousset 1581. *Hysterotomotokie* is quite an appropriate neologism: *Hystero* means "uterus," *tomos* "to cut out or down," and *tokos* "birth," or the act of bringing forth – a more accurate rendering than caesarean section! In 1610, a successful caesarean section was performed in Wittenberg by a surgeon named Jeremias Trautmann. The child survived, but the mother, who seemed to have recovered, died suddenly about one month after the operation. The operation was described in detail by Sennert 1649.

³⁴ Mercurio 1596.

³⁵ Two German surgeons initiated a reliable method of suturing the uterus, independently, in 1882: Ferdinand Adolph Kehrer and Max Saenger, a Jewish surgeon and pupil of the well-known gynecologist Carl S. F. Crédé in Leipzig.

7. Two Brief Relevant Additions

The practice of embryotomy is another way of solving the problem of impeded birth. The rabbis of the Talmud ruled that, if the life of the mother is in real danger, the unborn child can – or, rather, must – be dismembered within the womb and extracted limb after limb. The life of the mother is considered of higher value than that of the fetus. However, if the head, or the major part of the child's body, has come out of the womb, no harm can be done to the child (m. 'Ohalot 7:6).³⁶ Incidentally, the church fathers (Tertullian in particular), ruled differently, favoring caesarean section: both mother and child have their own soul, and God will decide who will live and who will die. We read in Tertullian's *Apology*: "To kill a child before it is born is to commit murder [...] There is no difference whether you destroy a child in its formation or after it is formed and delivered."³⁷ This being as it may, it is important to note that embryotomy was seen in ancient times as a substitute for caesarean section for similar indications.

Some Talmudic authorities may have learned how to practice operations that are similar to caesarean section. We read that the physician Thodos (Theodoros) reported that every cow and every sow exported from Egypt had its womb removed in order to preserve these highly rated breeds (b. Bekhorot 28b).³⁸ It may be surmised that Thodos learned medicine in Alexandria, but I do not infer that he knew how to perform the operation or had performed it himself. I argue only that the Hellenistic Egyptians had this surgical ability (on animals).

Conclusions

I wished to offer in this contribution a renewed examination of the problematic historicity of the alleged performance of caesarean section as mentioned in the Talmud. The rabbis of the Mishnah and the Talmud, who lived between the second century BCE and the sixth century CE, were open-eyed and mindful about the natural sciences in surrounding cultures. Caesarean section on women who

³⁶ Rawitzki claimed that this reference to embryotomy tends to prove that caesarean section was unknown to the sages of the Talmud, otherwise it would have been mentioned in this context. Kotelmann argued that the chances of survival for both mother and child were so minimal after caesarean section that the rabbis mentioned this procedure for such extreme cases. Cf. Tzuberi 2015.

³⁷ Tertullian, *Apologeticus* chapter 9 (Reeve 1889, 32). See also Preuss 1978, 419–420. Cf. Barr 2017.

³⁸ In one place (m. 'Ohalot 4:2) he is called *Theodoros*, elsewhere *Thodos*. Names appear sometimes in various forms in different Talmudic treatises. *Thodos* was also known for his expertise in anatomy: he came once, together with other physicians, to determine the characteristics of human bones that had been discovered (b. Nazir 52a). He might well have studied in Hellenistic Alexandria, although this cannot be established with certainty.

died in childbirth was performed in Roman antiquity long before Talmudic times. However, the actual practice of this operation on a living woman has not been documented in other ancient cultures. It was not practiced, but it was also not unheard of. I have shown that in many cultures there were references to such extraordinary births, particularly in mythology and folktales. It must be stressed again that there is nowhere in the Mishnah or in the Talmud any clear mention of the section having been performed and witnessed as such. We must therefore conclude that the most plausible case could be an ectopic, extra-uterine gestation, followed by extraction “through the wall.” Caesarean section should be seen as a merely theoretical procedure, induced by the legendary stories and by an eager wish of the rabbis to help the numerous women who died in childbirth. These considerations were then directed toward halakhic debate, particularly regarding the rights of the firstborn.

Bibliography

- Albeck, Chanoch, ed. 1988. *The Six Orders of the Mishna*. Jerusalem: Bialik Institute; Tel Aviv: Dvir. (Hebrew)
- Barr, Julian. 2017. *Tertullian and the Unborn Child*. London: Routledge.
- Bauhin, Caspar. 1588. *Gynaeciorum, sive de Mulierum Affectibus Commentarii*. Basel: Guarinum.
- Bostock, John, and Henry T. Riley, trans. 1855. Pliny the Elder, *The Natural History*. London: Taylor and Francis.
- Dal Bo, Federico. 2021. “A Foetus Shaped Like a Sandal: Birth Anomalies in Talmudic Tractate Niddah.” In *Defining Jewish Medicine. Transfers of Medical Knowledge in Jewish Cultures and Traditions*. Edited by Lennart Lehmhaus. Wiesbaden: Harrassowitz. Pages 93–118.
- Epstein, Isidore, ed. 1935–1952. *The Soncino Babylonian Talmud*. 36 vols. London: Soncino Press. Cited 18 October 2018. Online: <http://ancientworldonline.blogspot.fi/2012/01/online-soncino-babylonian-talmud.html>.
- Felkin, Robert W. 1884. “Notes on Labour in Central Africa.” *Edinburgh Medical Journal* 20: 922–930.
- Ferdowsi, Abulqasem. 2007. *Shahnameh, the Persian Book of Kings*. Translated by Dick Davis. New York: Penguin.
- Griffith, Ralph T. H., trans. 1896. *The Hymns of the Rig Veda, Volume I*. 2nd edition. Benares: E. J. Lazarus & Co. Cited 17 January 2018. Online: https://en.wikisource.org/wiki/The_Rig_Veda.
- Magnusson, Eiríkur, and William Morris, trans. 1909–14/2001. “The Story of the Volsungs and Niblungs.” *Harvard Classics* 49.4. Cited 17 January 2018. Online: <https://www.bartleby.com/49/4/> (from the printed edition; New York: P. F. Collier & Son).
- Mercurio, Scipione. 1596. *La Commare o Raccoglitrice*. Venice: Gio Battista Ciotti.
- Ploss, Hermann H., Max Bartels, and Paul Bartels. 1936. *Woman. An Historical Gynaecological and Anthropological Compendium*. London: Heinemann.

- Preuss, Julius. 1978. *Biblical and Talmudic Medicine*. Translated by Fred Rosner. New York: Sanhedrin.
- Quecke, Kurt. 1952. "Über die Anfänge des Kaiserschnittes." *Ciba-Zeitschrift* 11, no. 128:4706–4710.
- Reeve, William, trans. 1889. *The Apology of Tertullian*. London: Griffith.
- Rosner, Fred. 1977. *Medicine in Bible and Talmud*. New York: Ktav.
- Rosner, Fred, and D. Bleich, eds. 2000. *Jewish Bioethics*. Hoboken, NJ: Ktav.
- Rousset, François. 1581. *Traitté nouveau de l'Hysterotomotokie ou Enfantement Caesarien*. Paris: du Val.
- Sennert, Daniel. 1649. *Practicae Medicinae*. X vols. Wittenberg: Mevij et Schuemacheri.
- Spink, Martin S., and Geoffrey L. Lewis, trans. and eds. 1973. *Abulcasis on Surgery and Instruments*. Berkeley: University of California Press.
- Steuer, Christiane (Hannah Tzuberi). 2008. "Der Fetus ist ein Glied seiner Mutter (*ubar erekh imo*): Eine rabbinische Interpretation von Exodus 21:22–24." *Lectio difficilior* 2. Cited 7 July 2020. Online: <http://www.lectio.unibe.ch/e/archiv.htm>
- Tzuberi, Hannah. 2015. "A House inside a House. Mishnah Ohalot 7:4." *Nashim: A Journal of Jewish Women's Studies & Gender Issues* 28: 134–146.
- Young, John Harley. 1944. *Caesarean Section: The History and Development of the Operation from Earliest Times*. London: H. K. Lewis.
- Zeitlin, Froma. 2002. "Apollo and Dionysos: Starting from Birth." In *Kykeon, Symposium in Honor of Henk Versnel*. Edited by H. F. J. Horstmanhoff et al. Leiden: Brill. Pages 194–218.
- Zuckerman, Moses S., ed. 1970. *Tosefta*. Jerusalem: Wahrman. (Hebrew)

A Short Remark on the Sixteenth Book of Aetius Amidenus's *Libri medicinales*

The Case of the Clitoridectomy

IRENE CALÀ

ABSTRACT: The surgical practice of clitoridectomy is described in some medical treatises, such as those written by Soranus of Ephesus and Paul of Aegina. The practice was thus clearly exercised until late antiquity. The most important witness to this practice is the work of Aetius of Amida, a physician who lived in the first half of the sixth century. The source used by Aetius is Philumenus, a physician whose work is known only in fragments, and who probably lived in Egypt. Some information contained in Aetius's passage shows us not only medical data but also an image of the society. Indeed, this practice seems to be related to social life and the idea of female body.

The sixth-century author Aetius of Amida devoted the last book of his medical encyclopedia, the *Libri medicinales*, to female diseases.¹ This, the sixteenth book, is one of the more complete treatises on gynecology and obstetrics that has survived from antiquity.² The work Aetius of Amida has recently received new interest from scholars, not only as a precious source for lost medical literature, but also for its value as a medical work in its own right.³ In this contribution, I discuss a passage devoted to a surgical practice called *clitoridectomy* (that is, the excision of the clitoris), which is very similar to the female genital mutilation, also known as female circumcision, practiced in Africa, Asia, and the Middle East. My aim is to show the importance of Aetius as a witness for the history of medicine, and especially for that of late antiquity.

¹ I am very grateful to Lennart Lehmhaus, the editor of this volume, for his kind invitation to contribute and to Sean Coughlin for correcting my English.

² Unfortunately, we have few treatises on gynecology if we exclude the treatise contained in the *Corpus Hippocraticum*. The sixteenth book of Aetius is very important for our knowledge of female diseases in late antiquity, as the work of Soranus is for the imperial period.

³ Two current projects are underway that deal with the works of Aetius of Amida: "Der Transfer medizinischer Episteme in den 'enzyklopädischen' Sammelwerken der Spätantike" (SFB 980 "Episteme in Bewegung. Wissenstransfer von der alten Welt bis in die frühe Neuzeit", Freie Universität Berlin), and "Griechische Erstedition der Libri medicinales, Bücher 10 und 14, des Aëtios von Amida (6. Jh. n. Chr.) samt deutscher Übersetzung, medizinhistorisch-philologischem Kommentar und Quellenanalyse" (DFG 386999510, LMU München).

1. Aetius of Amida: Life and Work

Aetius was born in Amida, which is today Diyarbakir in Turkey.⁴ Amida was well known in late antiquity for at least two episodes: the battle, siege, and occupation by the Sasanians in 359 and a siege followed by a war with the Persians in 503. Aetius probably studied at Alexandria, as was typical at that time, and presumably exercised the medical profession there as well. We have no witness to his presence in Constantinople other than a reference to a status of *comes obsequii*.⁵ The dating of his life to the first half of sixth century is accepted by scholars, even if we can put him only approximately between Oribasius and Alexander of Tralles. Oribasius of Pergamon, doctor to the emperor Julian the Apostate, is one of most important sources used by Aetius in his medical treatise. Alexander of Tralles, the brother of Anthemius, the famous architect of Hagia Sophia, quoted Aetius only one time, in his treatise *On fevers*.⁶

Aetius's sixteen-book medical treatise could be considered a *summa* of medical knowledge in late antiquity. The first two books cover the properties of simple drugs, plant, earthy, metallic and animal remedies. The third book addresses general therapeutics, hygiene, bloodletting, and purgatives. The fourth book is on dietetics, the fifth treats different kinds of fevers, and the sixth the diseases of the head. Book seven is occupied with ophthalmology, while book eight starts with cosmetic remedies and ends with diseases of respiratory tract. The digestive tract is the subject of book nine, especially stomach and intestines, while book ten moves on to the afflictions of the liver and spleen, book eleven to diabetes and urinary tract, and book twelve to rheumatism and gout in book. Book thirteen takes up animal bites, antidotes, and skin. Book fourteen covers diseases of the anal tract, treatment of wounds, and general surgery, and tumors and plasters are covered in book 15. Finally, book sixteen deals with obstetrics and gynecology, ending with some cosmetic prescriptions and many kind of fumigation.

2. A General View of Book Sixteen: Editions, Translations, and Studies

A critical edition of the first part of *Libri medicinales*, books 1–8, was published in the collection of *Corpus Medicorum Graecorum* in two volumes; the first contains books 1–4 and was published in 1935, while books 5–8 appeared in 1950. The edi-

⁴ On historical episodes about Amida in late antiquity see, e. g., Evagrius Scolasticus, *Historia ecclesiastica* 1.18 and 3.37 (Bidez and Parmentier 1898, 28 and 135).

⁵ This reference as a κόμης τοῦ Ὀψικίου is transmitted only in some recent manuscripts. See Nutton 1996, 210 and Hunger 1978, 294. On the contrary, for Jones, Martindale, and Morris 1980, 2:20, it is a mistake.

⁶ Alexander of Tralles, *De febribus* 7 (Puschmann 1878–79, 1:437).

tor was the philologist Alessandro Olivieri, who planned to edit the second part as well, but unfortunately died before he could complete the work.

Aetius Amidenus's medical treatise was very famous during the Renaissance and printed many times. The second part, books 9–16, circulated only in Latin translation, because the Greek edition of the second part was announced by the Aldine press in the preface of the first part in 1534 but was never published. Instead of Greek, the second part was read during the Renaissance in two Latin translations: one by Giovanni Battista da Monte in 1533–35 and the other by Ianus Cornarius in 1542. The latter was the most famous, probably because Henry Estienne published the translation of 1542 in his collection on Greco-Roman medicine in Geneva in 1567. The Spanish humanist and physician Cristobal de Horozco also published a commentary on the entire *Libri medicinales* in 1540.⁷

The second part of *Libri medicinales* thus had a troubled history, which continues until today. I will focus on the editorial ventures of the last book, in which is contained the passage that I will discuss in this paper. The Greek text of sixteenth book was printed by Skevos Zervos, a Greek doctor who also published other books of the second part at the beginning of the twentieth century.⁸ Unfortunately, this is not a critical edition; we can consider it little more than a transcription. I believe it could be useful to add some information about the text printed by Zervos, especially the manuscripts used for the text. Zervos worked in Berlin in the last years of nineteenth century, as he said in his preface to the text, and published the text of Aetius in April 1901. Zervos himself in his preface – that is, in modern Greek – speaks about the manuscripts he used. The first, called *siglum* A, is the manuscript *Berol. gr. fol. 37 n. 273*. The second, *siglum* B, is *Berol. gr. fol. 38 n. 274*, which, according to Zervos, was copied from a manuscript in Vienna. The third, *siglum* Γ, is *Berol. gr. fol. 39 n. 275*.⁹ Zervos refers to a fourth manuscript, Ms. *Berol. Phillips* 1534, but he does not give a *siglum* there or use it in his apparatus. The contribution of this last manuscript is unclear, although it is possible to evaluate the other three by reading the text and apparatus. A new edition according philological guidelines is not only desirable but necessary.

Max Wegscheider, a German doctor, published the first translation into modern language in September 1901.¹⁰ He worked in Berlin with materials provided by Professor Julius Leopold Pagel, although he consulted also some manuscripts in the Staatsbibliothek zu Berlin, and, in the last part of his work he also read some passages in the edition printed by Zervos in April 1901.

The book was translated into English by the doctor James Ricci in the middle of the twentieth century, but Ricci used the Latin version published during the Ren-

⁷ For a general view on Aetius during the Renaissance see Calà 2012.

⁸ The sixteenth book is Zervos 1901. See also Zervos 1905; Zervos 1909; Zervos 1911.

⁹ These three manuscripts are currently in Krakow.

¹⁰ Wegscheider 1901.

aissance by Janus Cornarius, not the Greek text printed by Zervos.¹¹ The translation is accompanied by a very interesting introduction by Arturo Castiglioni, of which I would like to quote the judgment about the value of Aetius's book sixteen: "Book XVI is undoubtedly one of the most important sections of Aetios' text, and from early times it has drawn the attention of physicians, critics, and medical historians since it contains original observations and suggestions and a complete discussion of the subject matter."¹²

The book was recently translated into Italian by Roberto Romano, published in 2006 in a collection of Byzantine doctors.¹³ Romano worked for many years on the manuscript tradition, and his translation is based on a Greek text that is a sort of critical correction of Zervos's text.¹⁴ Romano intended his translation to accompany a Greek text and be only a first step toward producing a critical edition, but the project has unfortunately been abandoned.

One study of this book has been published in an article about a hypothetical link between Aetius and the court of Emperor Justinian by John Scarborough, and other studies have been published by me.¹⁵

3. Contents

In order to give to the reader a general view of the contents of this book, I report here the summary by Photius, the famous patriarch of Constantinople:¹⁶

Ἐν δὲ τῷ τελευταίῳ τε καὶ ἰς' λόγῳ περὶ μήτρας θέσεώς τε καὶ μεγέθους καὶ τῆς ἄλλης διαπλάσεως ἀναγράφει, καὶ τὸν καιρὸν καθ' ὃν τε καθαίρεσθαι καὶ σπερμαίνειν ταῖς γυναιξὶ συμβαίνει. Περί τε κυοφορίας αὐτῶν, καὶ σημειώσεως τῶν πεφυκυῶν συλλαβεῖν, καὶ εἰ ἤδη συνέλαβον· καὶ ὅσα ἄλλα ταῖς κυοφορούσαις πάθη ἐπιγίνεται· ἢ τε περὶ αὐτὰς ἐπιμέλεια, καὶ ποῖαι μᾶλλον ἐπιτήδευοι πρὸς τόκον, ποῖαι δὲ ἀνεπιτήδευοι· καὶ περὶ δυστοκίας, καὶ ὅσα παρὰ φύσιν τίκεται, περὶ τε ἐμβρυοτομίας καὶ ἐκλείψεως χορίου· καὶ κατὰ πόσας αἰτίας ἀνὴρ καὶ γυνὴ τῆς παιδοποιίας στερίσκονται. Πάντων δὲ θεραπεῖαι τῶν εἰρημένων ἐν τούτῳ τῷ λόγῳ καταλέγονται, καὶ πόματα καὶ πεσσοὶ καὶ ὑποθυμάματα συλληπτικά. Ἐκεῖθεν τε περὶ τῶν ἐν τοῖς μαστοῖς παθῶν ἀπάντων μετὰ τῆς πρεπούσης τῇ τέχνῃ σοφίας διηγεῖται, συστάσεις τε τούτων καὶ γενέσεις καὶ χειρουργίας καὶ τὴν ἄλλην συνυφαίνων θεραπεῖαν. Μεθ' ἧς περὶ τῶν κατὰ διαφόρους αἰτίας ἐπεχομένων ταῖς γυναιξὶν ἐμμήνων καθάρσεων περὶ τε ὑπερκαθάρσεως καὶ γυναικεῖου ροῦ, τοῦ τε ἐρυθροῦ καὶ τοῦ λευκοῦ, περὶ τε ὕστερικής πνιγδός καὶ περὶ γονορροίας διαλαμβάνει, τὴν τούτων εὖ μάλα διατιθεὶς θεραπεῖαν· καὶ περὶ τῶν ἄλλων τῆς μήτρας παντοδαπῶν παθῶν, ἀποστημάτων λέγω καὶ οἰδήματος καὶ μύλης καὶ ὕδρωπος καὶ ἔλκους καὶ τῶν παραπλησιῶν· ἐν οἷς περὶ τε φимώσεως μήτρας καὶ ἀτρήτου ὕστερας καὶ τῶν παραπλησιῶν ἐπεξίων γράφει

¹¹ Ricci 1950.

¹² Ricci 1950, II.

¹³ Romano 2006.

¹⁴ Romano 1984; Romano 1987; Romano 1996; Tartaglia 1980.

¹⁵ Scarborough 2013; Buzzi and Calà 2017; Calà 2016a; Calà 2016b.

¹⁶ Photius, *Bibliotheca*, cod. 221.

τούτων θεραπείας. Περί τε νυμφοτομίας καὶ περὶ κερκώσεως κισσοκλήλης τε καὶ θύμων καὶ τῶν ὁμοίων κατὰ τὴν ἴσιν μέθοδον τὰς ἰάσεις ἀναγράφει. Οἷς σμήγματά τε ὄψεως καὶ τοῦ ἄλλου σώματος καὶ θυμιαμάτων σκευασίας συντάττει, τὸ ὅλον ἐνταῦθα τῆς σπουδασθείσης αὐτῷ ἱατρικῆς πραγματείας συμπερανάμενος βιβλίον.

The sixteenth book considers the position of the uterus, its size and form in general, and discusses at what time there is purification of the woman and production of the seminal germ. It considers the time of the fertility and the signs by which one recognizes the fertile woman or when she has already conceived, also all the other complaints which are the lot of pregnant women, the care one needs to give them, of those who are most apt to give birth and those who are not; it considers those causes of unforeseen difficulties of the man and woman to procreate. Treatments of all the complaints encountered are enumerated in this book: potions, pessaries, and fumigations promoting conception. After that, it considers, with all the authorization of the art, all afflictions of the breast; it covers its structure, growth, surgery, and other reasons for its treatment. It speaks subsequently of menstrual purgation produced by diverse causes in the woman and of excessive purgation, the red and white loss of the woman, tightness of the uterus, gonorrhea, complaints requiring much treatment; it also speaks of the other diverse afflictions of the uterus: abscess, edema, abortion, dropsy, ulcers, and other similar afflictions. Here are reviewed shrinkage of the uterus, the uterus without issue, anomalies of the same order, and their treatment described. In the section on the labia, excrescences, varicocele, cysts, and afflictions of the same sort, treatment is described in the same way. To these he adds unguents for the face and for the rest of the body, and preparation of fumigations, concluding here the entire book of the medical treatise that he has set as his task. It prescribes for those cases of abrasion of the face and entire body, and of the fumigation preparations in achieving here the treatise of medicine that has been set as its task.

According to scholars, the summary provided by Photius is accurate and detailed; this holds if we compare it with some summaries transmitted by manuscripts, such as the summary in a manuscript copied by Iohannis Staphidakis in the fourteenth century: ἐν δὲ τῷ ἑξεκαιδεκάτῳ περὶ γυναικείων παθῶν καὶ θυμιαμάτων καὶ μύρων τινῶν σκευασίαι καὶ φουλιάτων καὶ σπικάτων καὶ οἶνανθαρίων, "In the sixteenth book he discusses about the female diseases, preparations of fumigations and ointments, and with leaves, spikes and sprouts."¹⁷ Indeed, the sixteenth book consists of two parts: the first focuses on obstetrics and gynecology, the second on cosmetics and fumigations.

4. On Clitoridectomy

According to the World Health Organization (WHO), "female genital mutilation (FGM) comprises all procedures that involve the partial or total removal of external genitalia or other injury to the female genital organs for non-medical reasons."¹⁸ Although in 2012 the United Nations General Assembly adopted a resolu-

¹⁷ Ms. Vat. gr. 298, f. lv. For scholarly appraisal of Photius, see e. g., Marganne 2010.

¹⁸ World Health Organization 2016.

tion against female genital mutilation, it is prevalent in thirty countries in Africa, and several countries in Asia.¹⁹ There are four types of female genital mutilation: partial or total removal of the clitoris; partial or total removal of clitoris and labia minora, with or without excision of the labia majora; narrowing of the vaginal orifice with the creation of a covering seal by cutting and positioning the labia minora or labia majora, with or without excision of the clitoris; and, finally, all other harmful procedures done to the female genitalia for nonmedical purposes such as pricking, pulling, or incising.

The practice described in Aetius's text is the first in the modern classification – that is, the partial or total removal of the clitoris – and for this reason we can call it clitoridectomy. I choose to discuss this passage devoted to the clitoridectomy because Aetius of Amida is the most complete source about this practice in ancient medicine. As I will show, the text of Soranus about clitoridectomy is unfortunately lost. Actually, if we look for the practice of the clitoridectomy in Greek medicine, we find only two texts: those of Aetius of Amida and Paul of Aegina (seventh century CE), although the latter is less detailed than Aetius.

Philumenus is the source of the chapter devoted to the clitoridectomy. He was a physician whose career dates to the second or third century CE.²⁰ Oribasius quotes from his writing only a few times, but he is a very important source for Aetius's work, as I will show.²¹ Unfortunately, the medical work of Philumenus is today almost completely lost and is known for the most part through indirect tradition; many times, the text of Aetius is the only witness, like in this case on clitoridectomy.²² Concerning gynecology, Philumenus is quoted by Oribasius only once, in the chapter devoted to uterine suffocation, but several times by Aetius.²³ Aetius's quotations from Philumenus in the manuscript *Laut. Plut.* 75.7 are presented in table 1 with English translation; I have also indicated the chapter number in Zervos's text, because in the manuscript the numeration is a little bit different.

The text on the excision of clitoris ascribed to Philumenus is transmitted by Aetius as follows:²⁴

Περὶ νυμφοτομίας, Φιλουμένου.

Ἡ λεγομένη νύμφη οἶον μυῶδες ἢ δερματῶδες ἐστὶ συγκριμάτιον κείμενον κατὰ τὴν ἄνωθεν τῶν περυγωμάτων συμβολήν, καθ' ὃν τόπον ἡ οὐρήθρα τέτακται· μεγεθύνεται δέ τισιν ἐπὶ πλέον τῶν γυναικῶν αὐξήσιν λαμβάνον, καὶ εἰς ἀπρέπειαν καὶ αἰσχύνην γίνεται. ἀλλὰ καὶ παρατριβόμενον συνεχῶς ὑπὸ τῶν ἱματίων ἐρεθίζει, καὶ τὴν πρὸς συνουσίαν

¹⁹ Williams-Breault 2018. About FGM see, e.g., Andro and Lesclingand 2016.

²⁰ Touwaide 2000.

²¹ Philumenus is quoted two times in *Collectiones medicae* and nine times in *Synopsis*.

²² The tenth-century Ms. *Vaticanus graecus* 284, tenth century, very famous for Dioscorides, transmits the work "On poisonous animals and medicines extracted from them" (Περὶ τοξόων ζώων καὶ τῶν ἐν αὐτοῖς βοηθημάτων); see Wellmann 1908.

²³ Oribasius, *Synopsis ad Eustathium filium*, 9.45 (Raeder 1926, 305, 10–28).

²⁴ The Greek text can be found in Zervos 1901, 152,13–153,10; the translation is from Ricci 1950, 107–108.

κ'. Περὶ ἐμβρυουλκίας καὶ ἐμβρυοτομίας, Φιλουμένου	Ch. 20. On extraction and dismembering of the foetus, according to Philumenus (= ch. 23 Zervos)
κα'. Περὶ χορίου ἐκλήψεως, Φιλουμένου	Ch. 21. On extraction of the placenta, according to Philumenus (= ch. 24 Zervos)
λδ'. Πρὸς φλεγμονὰς μαστῶν, Φιλουμένου	Ch. 34. On inflammations of the breasts, according to Philumenus (= ch. 37 Zervos)
λε'. Πρὸς τὰς σκληρυνόμενας φλεγμονὰς μαστῶν, Φιλουμένου	Ch. 35. On the indurated inflammations of the breasts, according to Philumenus (= ch. 38 Zervos)
ξ'. Περὶ ὑστερικής πνιγὸς ἐκ τῶν Φιλουμένου τὰ πλεόνα καὶ Φιλαγρίου	Ch. 60. On uterine suffocation, from the books of Philumenus for the most part and according to Philagrius (= ch. 67 Zervos)
οε'. Περὶ φλεγμονῆς ὑστέρας Φιλουμένου	Ch. 75. On inflammation of the uterus, according to Philumenus (= ch. 79 Zervos)
οθ'. Ὅπως δεῖ ἐνεργεῖν περὶ τὸ στόμα τῆς μήτρας γιγνομένου ἀποστήματος Φιλουμένου	Ch. 79. How surgical operations should be used when the abscess is placed around the mouth of the uterus, according to Philumenus (= ch. 100 Zervos)
πζ'. Περὶ φимώσεως μήτρας Φιλουμένου	Ch. 87. On the obstruction of the uterus, according to Philumenus (= ch. 108 Zervos)
ζε'. Περὶ νυμφοτομίας Φιλουμένου	Ch. 95. On clitoridectomy, according to Philumenus (= ch. 115 Zervos)
ζζ'. Περὶ θύμων καὶ μυρμήκων καὶ ἀκροχορδόνων ἐν ὑστέρᾳ Φιλουμένου	Ch. 97. On excrescences, irritations and warts in the uterus, according to Philumenus (= ch. 118 Zervos)
ζη'. Περὶ ραγάδων ἐν ὑστέρᾳ Φιλουμένου	Ch. 99. On fissures in the uterus, according to Philumenus (= ch. 120 Zervos)

Table 1. Chapters ascribed to Philumenus in book sixteenth of Aetius

ὁρμὴν ἐπεγεῖρει, διόπερ πρὸ τῆς μεγεθοποιήσεως ἔδοξε τοῖς Αἰγυπτίοις ἀφαιρεῖν αὐτὸ τότε μάλιστα, ὅποτε πρὸς γάμον ἀγεσθαι μέλλοιεν αἱ παρθένοι. ἐπιτελεῖται δὲ ἡ χειρουργία τὸν τρόπον τοῦτον. Ἐδραζέτω μὲν ἡ παρθένος ἐπὶ δίφρου, παρεστῶς δὲ ὅπισθεν νεανίσκος εὐτονος ὑποβάλλων τοὺς ἰδίους πήχεις ταῖς ἐκείνης ἰγνύαις, διακρατεῖτω τὰ σκέλη καὶ τὸ ὅλον σῶμα· ἐστὼς δὲ ἐναντίον ὁ ἐνεργῶν καὶ μυδίῳ πλατυστόμῳ συλλαβὼν τὴν νύμφην διὰ τῆς εὐωνύμου χειρὸς ἀποτεινέτω, τῇ δὲ δεξιᾷ ἀποτεμνέτω παρὰ τοὺς ὀδόντας τοῦ μυδίου. μέτρον δὲ προσήκει κατέχειν ὡς ἐπὶ τῆς ἀποτεμνομένης κιονίδος, ἵνα τὸ περιττεῦον μόνον ἀφαιρεθῇ· παρὰ δὲ τοὺς ὀδόντας τοῦ μυδίου τὴν ἀφαίρεσιν εἶπον γενέσθαι, διὰ τὸ δερματώδη εἶναι τὴν νύμφην καὶ παρεκτείνεσθαι μέχρι πλείστου. ὥστε μὴ ἐκ τῆς περιττοτέρας ἀποκοπῆς ὡς ἐκ τῆς βαθυτέρας τῶν ἐγκανθίδων ἐκτομῆς ροιὰς ἐπακολουθεῖν. Μετὰ δὲ τὴν χειρουργίαν οἶνω προσήκει στύφειν τὴν ἔλκωσιν ἢ ψυχρῷ ὕδατι, καὶ ἀπομάξαντας σπόγγῳ μάναν ἐπιπάττειν, καὶ μοτὸν ὀξυκράτῳ βρέχοντας ἐπιπιθέναί, καὶ ἄνωθεν σπόγγον ὀξυκράτῳ βεβρεγμένον πάλιν ἐπιπιθέναί· μετὰ δὲ τὴν ἐβδόμην καδμίαν λειοτάτην ἐπιπάσσειν, ἢ σὺν αὐτῇ ρόδων ἄνθος, ἢ τὸ διὰ διφρυγοῦς λίθου ξηρὸν αἰδοϊκόν. καλὸν δὲ καὶ τοῦτο· ὅστᾳ φοινίκων καύσας καὶ λεάνας ἐπίπασσε τὴν σποδὸν, ποιεῖ καὶ πρὸς τὰ ἐν αἰδοίοις ἔλκη.

On clitoridectomy, according to Philumenus.

What is called the *nympha* (clitoris) is something muscle or skin-like, situated above the commissure of the wings of the pudendum, in the place where the urinary meatus is found. In some women, it attains such a size when it takes on growth that it tends towards un-

seemliness and becomes something shameful. And further it is irritated as it constantly rubs against clothing and it stimulates the impulse towards sexual intercourse. On that account it seemed reasonable to the Egyptians to amputate the *nympha* before it became too large, especially before the marriageable virgins were to be assigned. The surgery is done in the following manner: place the virgin in a chair, and let a robust young man, standing behind her and placing his arms under the backs of her thighs, hold her legs and her entire body. Then, once the surgeon is standing opposite her, grasping the *nympha* with forceps, let him from his left hand; and with the right (hand), let him cut just above the teeth of the forceps. It is fitting to preserve a length, like that (left) in the excision of the uvula, so that only the excess part is excised. As we have said, the excision is to be next to the teeth of the forceps, and since the *nympha* is a skin structure it can be stretched excessively, and unless one watches diligently, it is easy to make an amputation beyond that which is necessary; and hence there follows a diminution of the carbuncle which the Greeks call the *rhoeada*. After the surgery, it is fitting to close up the wound with a wine or cold water, and having wiped it clean with a sponge; to sprinkle powder on it, cover it with lint that has been soaked in vinegar water, and on top place a sponge that has been soaked again in vinegar water. After the seventh day, sprinkle fine calamine, either with flowers of roses, or a dry powder for the genitals prepared from baked clay. This is also good: having burnt and ground up the stones from dates, sprinkle the ash and do [what one does] to wounds of the genitals.²⁵

The passage transmitted by Aetius is a very important witness on this surgical treatment. As I said, it is the only witness to the text ascribed to Philumenus, and the passage on this same topic ascribed to Soranus of Ephesus is lost.

According to the Latin treatises by Caelius Aurelianus (fourth–fifth centuries CE) and Muscio (fifth–sixth centuries CE) we can affirm that Soranus may have also written something about the excision of the clitoris.²⁶ Caelius Aurelianus wrote about the excision of clitoris this passage, as follows:²⁷

De immodica landica.

Quibusdam landicis horrida comitatur magnitudo et feminas partium feditate confundit et, ut plerique memorant, ipse adfecte tentigine virorum similem appetentiam sumunt et in venerem coacte veniunt. suppina denique mulier locanda est conductis femoribus, ne febre feminini sinus distantiam sumant. tunc [in] midio est tenenda superflua atque pro modo alienitatis sue scalpello precipienda. si enim plurimum extenditur porrecta longitudine sequetur (...) atque ita immodice decissionis largo fluore afficit patientem. set post chirurgiam erit adhibenda coercens atque (...) curatio.

On the hypertrophied clitoris.

Some clitorides have a frightening size and fill women with confusion because of the ugliness of their intimate parts; according to the most part of authors these women have erections and feel a desire similar to that of men and manage to engage in a sexual act only under duress. Actually, the woman is to be placed lying on her back and with the thighs closed, lest the viscera of the feminine cavity become distended. Then one has to grasp the superfluous organ with little forceps and to cut it with a scalpel that which appears to be larger (...) and

²⁵ Ricci 1950, 107–108, modified by S. Coughlin.

²⁶ Burguière, Gourevitch, and Malinas 2003, 87–94; Ilberg 1927, 147.

²⁷ Drabkin and Drabkin 1951, 113.

in this way the result of this excision produces in the women a large loss of blood. But after the surgical operation, will be necessary a treatment to stop the blood and <...>.

The text of Muscio is very similar to that of Caelius, and it could be interesting to read about their relationship what is contained in the edition of Soranus published by Les Belles Lettres.²⁸ It is therefore very difficult to say if Aetius in this passage also used Soranus or only Philumenus. In addition to this, we cannot say anything about the relation between Soranus and Philumenus, whether Philumenus used Soranus's text or another source.

The only other Greek text preserved is that of Paul of Aegina:

Περὶ νυμφοτομίας καὶ κερκώσεως.

Ὑπερμεγέθης ἐνίαις γίνεται νύμφη καὶ εἰς ἀπρέπειαν αἰσχύνῃς ἀπαντᾷ· καθὼς δέ τινες ἱστοροῦσιν, ἔναι διὰ τοῦ μέρους καὶ ὀρθιάζουσιν ἀνδράσιν ὁμοίως καὶ πρὸς συνουσίαν ὀρμῶσιν. διόπερ ὑπτίας ἐσχηματισμένης τῆς γυναικὸς μυδίῳ κατασχόντες τὸ περιττὸν τῆς νύμφης ἐκτέμνωμεν ἐμὴν φυλαττόμενοι τὸ ἐκ βάθους αὐτὴν ἐκτέμνειν, ἵνα μὴ ῥυαδικὸν ἐκ τούτου γένηται πάθος. καὶ τὴν κέρκωσιν δὲ σαρκώδη ἔκφυσιν οὖσαν ἀπὸ τοῦ στομίου τῆς μήτρας ἀναπληροῦσαν τὸ γυναικεῖον αἰδοῖον, ποτὲ δὲ καὶ εἰς τὰ ἔξω δίκην κέρκου προπίπτουσαν, παραπλησίως ἀφαιρετέον τῇ νύμφῃ.²⁹

On extirpation of the *nympha* and *cauda*.

In certain women the *nympha* is excessively large and presents a shameful deformity, inso-much that, as has been related, some women have had erections of this part like men, and also venereal desires of a like kind. Wherefore, having placed the women in a supine posture, and seizing the redundant portion of the *nympha* in a forceps we cut it out with a scalpel, taking care not to cut too deep lest we occasion the complaint called *rhoetas*. The *cauda* is a fleshy excrescence arising from the mouth of the womb, and filling the female pudendum, sometimes even projecting externally like a tail; and it may be removed in the same manner as the *nympha*.³⁰

Paul's text is significantly shorter than that of Aetius, and also than that of Caelius Aurelianus.

Returning to Aetius's chapter on the excision of the clitoris, the text provides the reader with an anatomical account, describes a surgical operation with its postoperative treatment, and also harbors some other observations. First, Aetius claims that the *nympha* (νύμφη) is a muscle-like tissue near the urinary meatus, which has a normal size in women. If it becomes abnormally enlarged, the excessive size becomes a medical problem. According to Aetius, this excessive size stimulates sexual impulses and is considered shameful. This seems to me more of a moralistic than a medical perspective.

The report concerning the practice of clitoridectomy in Egypt is also important. According to Aetius's text, the Egyptians engaged in preventative treatment,

²⁸ Translation by Bussemaker and Daremberg 1862, 473.

²⁹ Heiberg 1924, 112, 21–30.

³⁰ Adams 1846, 2:381. As Adams 1846, 2:82 said in his commentary, "The *cauda pudendi* was probably the cauliflower excrescence of the *os uteri* described by late authorities on midwifery."

excising the clitoris entirely before it begins to grow.³¹ This reference to Egypt is only in Aetius; it is lacking not only in Caelius and Muscio and probably in Soranus, but also in Paul. It would be interesting to investigate whether this surgical operation to remove the clitoris was really practiced in Egypt during late antiquity and previously, and also to understand what kind of source Aetius used, or whether in this case his source was Philumenus. This reference to Egypt could also be explained with the presence of Aetius in this country during his formation at the school of Alexandria. It seems to me very probable that Aetius was able to consult many materials available only in this school, many medical collections that today are lost, like the medical treatises of Philumenus.

Aetius described in detail the surgical operation, which consists of the excision of the “excess part” of the clitoris, not the entire clitoris, as in the case of the Egyptians. It is also interesting to stress the reference to a surgical instrument called μύδιον that is a “forceps” with a large opening (πλατύστομον) and teeth (τοὺς ὀδόντας); this instrument occurs in medical literature only a few times, and never in Galen’s treatises.³² The μύδιον is a small forceps mentioned by Oribasius three times in his treatise *Collectiones medicae*. The first appears in a chapter entitled “On the fractures,” in which this instrument is used to extend and cut, and it could be useful to report the French translation by the famous scholar Charles Daremberg because this instrument is called a “small pliers”:

Περὶ καταγμάτων. [...] ἡ δὲ τῆς ἀναστολῆς ἀκολουθία γίνεται, ἅμα τῷ διελεῖν κατοπτεινόντων ἡμῶν τὸ κατάγμα. ὅταν δὲ τὰ πέρατα στενότερα ὄντα εἰστρέπηται καὶ τὸ κατάγμα σκέπηται, εἴωθα πρὸς εὐχερῇ ἀνάτρησιν τὰ εἰστρεπόμενα μυδίῳ ἀποτείνειν καὶ ἐκτέμνειν. πρὸς δ’ ἀνεμπόδιστον θεραπείαν τοῦ κατάγματος δεῖ καὶ τὸ μέγεθος τῆς ἀναστολῆς τῶν σωμάτων κατάλληλον ποιεῖσθαι.

*Des fractures. [...] La débridement se fait régulièrement, si, tout en coupant, nous cherchons des yeux la fracture. Lorsque les bords de l’incision, étant trop minces, se retournent la fracture, j’ai l’habitude de retirer avec une petite pince les parties tournées en dedans, et de les exciser, pour faciliter l’emploi de la tarière. On doit faire en sorte que l’étendue du débridement corresponde à ce qui est nécessaire pour que le traitement de la fracture n’éprouve point d’obstacle.*³³

The second occurs in a chapter entitled “On the accidents in the fingers” and is very similar to the previous:

Περὶ τῶν κατὰ τοὺς δακτύλους συμβαινόντων. [...] δακτύλοις γὰρ ἡ μυδίῳ ἀποτείνεται καὶ ἐκτέμνεται, εἴθ’ ἡ ἔλκωσις βραχεῖα οὕσα οὐλοῦται τάχιστα.

³¹ This practice seems to me strongly linked with the infibulation practiced even today in many countries around the world.

³² See, e.g., Oribasius and Paul of Aegina, in addition to the references in book sixteen of Aetius.

³³ Oribasius, *Collectiones medicae* 46.10 (Raeder 1931, 219, 11–24). Translation by Bussemaker and Daremberg 1862, 154–155.

*Des accidents qui ont lieu aux doigts. [...] Lors donc qu'ils tirent leur origine de la chair, on les enlève facilement: on les attire avec les doigts, ou avec une pince, et on les coupe; la plaie se cicatrise très-vite, puisqu'elle est petite.*³⁴

The third is in a chapter about the urethra contracted by the flesh from the books of the Hellenistic doctor Heliodorus, the famous surgeon author to whom Juvenal refers in his *Satires*:

Ἐκ τῶν Ἡλιοδώρου. Περὶ συσσαρκωθείσης οὐρήθρας. [...] τῆς δὲ σαρκὸς περιτμηθείσης, καὶ τῆς τοῦ σκόλοπος ἀκμῆς ἀνεκκόπως περιενεχθείσης, τοῖς δακτύλοις περιπιέζεται ἡ οὐρήθρα, ἵνα συμπεσοῦσης προπέση ἢ σάρξ. ὅταν δὲ προκύψῃ καὶ μὴ ἐκπέσῃ, μυδίῳ ἐξεγκύσθω. καὶ τῆς σαρκὸς κομισθείσης, φυλάξαι δεῖ τὸν οὐρητικὸν πόρον ἐν εὐρύτητι.

*De l'urètre rétréci par la chair. – Tiré d'Héliodore. [...] puis, quand on a coupé la chair de tous les cotes, et qu'on peut mouvoir la pointe de l'instrument en tous sens sans l'engager dans la chair, on appuie de tous les cotes, avec les doigts, sur l'urètre, pour que ses parois s'appliquent l'une sur l'autre, et que la chair tombe au dehors. Si cette chair fait saillie, mais ne sort pas du canal, on la retirera avec une pince. Après avoir enlevé la chair, il faut tenir le canal dans l'état de dilatation.*³⁵

This instrument, probably used by the surgeons, is referenced also many times by Aetius and Paul of Aegina.

After the surgical operation, Aetius prescribes a treatment for the wound: a sponge soaked in astringent wine or cold, as well as a powder and lint to spread on the wound. After a week, a powder of calamine or another dry powder of ashes of the date seed.

Conclusion

The chapter about clitoridectomy contains detailed anatomical observations, a description of surgical operation, and postoperative treatment. The contents of this passage are on the one hand clearly medical and inform us about contemporary medical practice; also very important, however, is what the passage can tell us about the society in which it was written. The chapter in Aetius' work devoted to clitoridectomy, like many others in the last book of Aetius, gives us valuable information, not only for the history of medicine, but also for social history.

Further study of the text as a whole would no doubt offer similar insights into medicine and the female body in late antiquity. This text and texts like it are an important source for reflection on medicine and society in late antiquity. A second step of this research would be to investigate whether the practice of clitoridecto-

³⁴ Oribasius, *Collectiones medicae* 47.15 (Raeder 1931, 258, 28–259, 10). Translation by Bussemaker and Daremberg 1862, 249.

³⁵ Oribasius, *Collectiones medicae* 50.9 (Raeder 1933, 60, 6–61, 10). Translation by Bussemaker and Daremberg 1862, 473.

my is witnessed in other texts, like hagiographical works or the chronicles of late antiquity. Moreover, future studies about the image and representation of women's bodies will benefit from investigating this practice in more detail, particularly as it relates to other dimensions of society, sexuality, gender and the relationship between women and men.

Bibliography

- Adams, Francis. 1846. *The Seven Books of Paulus Aegineta*. 3 vols. London: Syndenham Society.
- Andro, Armelle, and Marie Lesclingand. 2016. "Female Genital Mutilation: Overview and Current Knowledge." *Population* 71,2: 216–273.
- Bidez, Joseph, and Léon Parmentier. 1898. *The Ecclesiastical History of Evagrius with Scholia*. London: Methuen.
- Burguière, P., Danielle Gourevitch, and Yves Malinas, eds. 2003. *Soranos d'Éphèse, Maladies des femmes, Livre IV*. Paris: Les Belles Lettres.
- Bussemaker, Ulco C., and Charles Daremberg. 1862. *Oeuvres d'Oribase*. Paris: Imprimerie nationale.
- Buzzi, Serena, and Irene Calà. 2017. "Le ricette cosmetiche nelle enciclopedie mediche tardoantiche." In *Collecting Recipes: Byzantine and Jewish Pharmacology in Dialogue*. Edited by Lennart Lehmhaus and Matteo Martelli. Berlin: De Gruyter. Pages 123–146.
- Calà, Irene. 2016a. "Terapie tra magia e religione. La gravidanza e il parto nei testi medici della tarda Antichità." In *Traducción y Transmisión doctrinal de la medicina grecolatina desde la Antigüedad hasta el mundo moderno. Nuevas aportaciones sobre autores y textos*. Edited by Maria Teresa Santamaría Hernández. Cuenca: Ediciones de la Universidad de Castilla-La Mancha. Pages 11–24.
- Calà, Irene. 2016b. "The Therapeutic Use of Mineral Amulets in Medical Works of Late Antiquity." *Pegasus* 59: 23–29.
- Calà, Irene. 2012. "La fortuna dei *Libri medicinales* di Aezio Amideno nell'Europa rinascimentale. Le *Annotationes* di Cristobal de Horozco." *Les études Classiques* 80: 187–205.
- Drabkin, Miriam F., and Israel E. Drabkin. 1951. *Gynaecia: Fragments of a Latin Version of Soranus's Gynaecia from a Thirteenth Century Manuscript*. Baltimore, MD: Johns Hopkins University Press.
- Estienne, Henry. 1567. *Medicae artis principes, post Hippocratem et Galenum. Graeci latinitate donati, Aretaeus, Ruffus Ephesius, Oribasius, Paulus Aegineta, Aetius, Alexander Tralianus, Actuarius, Nic. Myrepsus. Latini*. Geneva.
- Heiberg, Johan Ludvig, ed. 1924. *Paulus Aegineta, Libri V–VII*. CMG IX 2. Leipzig: Teubner.
- Hunger, Herbert. 1978. *Die Hochsprachliche profane Literatur der Byzantiner. Zweiter Band. Philologie-Profandichtung-Musik-Mathematik und Astronomie-Naturwissenschaften-Medizin-Kriegswissenschaft-Rechtsliteratur*. Munich: Beck.
- Ilberg, Johannes. 1927. *Sorani Gynaeciorum libri IV. De signis fracturarum, De fasciis, Vita Hippocratis secundum Soranum*. Leipzig: Teubner.
- Jones, Arnold H. M., Martindale, John R., and Morris, J. 1980. *The Prosopography of the Later Roman Empire*. 2 vols. Cambridge: Cambridge University Press.

- Marganne, Marie- Hélène. 2010. "La 'Bibliothèque médicale' de Photios." *Medicina nei secoli* 22,1–3: 509–530.
- Nutton, Vivian. 1996. "Aetios." In *Der neue Pauly: Enzyklopädie der Antike*. Edited by Hubert Cancik and Helmuth Schneider. 12 vols. Stuttgart: Metzler. Pages 1: 210.
- Puschmann, Theodor. 1878–79. *Alexander von Tralles: Original-Text und Übersetzung nebst einer einleitenden Abhandlung. Ein Beitrag zur Geschichte der Medicin*. 2 vols. Vienna: Wilhem Braumüller.
- Raeder, J. 1926. *Oribasii Synopsis ad Eustathium, Libri ad Eunapium*. Leipzig: Teubner.
- Raeder, J. 1931. *Oribasii Collectionum medicarum reliquiae, libri XXIV–XXV, XLIII–XLVIII*. Leipzig: Teubner.
- Raeder, J. 1933. *Oribasii Collectionum medicarum reliquiae, libri XLIX–L, libri incerti, eclogae medicamentorum*. Leipzig: Teubner.
- Ricci, James, trans. 1950. *Aetios of Amida: The Gynaecology and Obstetrics of the VIth Century, A. D.* Philadelphia: Blakiston.
- Romano, Roberto. 1984. "Per l'edizione dei libri medicinali di Aezio Amideno, III." *Koinonia* 8: 93–100.
- Romano, Roberto. 1987. "Per l'edizione dei libri medicinali di Aezio Amideno, IV." *Bollettino dei Classici* 8: 69–78.
- Romano, Roberto. 1996. "I capitoli della Ginecologia di Aezio Amideno traditi dal Par. gr. 2153 di Sorano." In *Storia e ecdotica dei testi medici greci*. Edited by Antonio Garzya. Naples: d'Auria. Pages 363–374.
- Romano, Roberto. 2006. "Aezio Amideno libro XVI." In *Medici bizantini*. Edited by Antonio Garzya. Turin: UTET. Pages 251–553.
- Scarborough, John. 2013. "Theodora, Aetius of Amida, and Procopius: Some Possible Connections." *Greek, Roman, and Byzantine Studies* 53: 742–762.
- Tartaglia, Luigi. 1980. "Per l'edizione dei libri medicinali di Aezio Amideno, II." *Koinonia* 4: 77–92.
- Touwaide, Alain. 2000. "Philumenos." In *Der Neue Pauly*. 900f. Online: http://dx.doi.org/10.1163/1574-9347_dnp_e922680.
- Wegscheider, Max, trans. 1901. *Geburtshülfe und Gynäkologie bei Aetios von Amida*. Berlin: Julius Springer.
- Wellmann, Max. 1908. *Philumeni de venenantis animalibus eorumque remediis*. Leipzig: Teubner.
- Williams-Breault, Beth. D. 2018. "Health and Human Rights." *Health and Human Rights Journal* 20,2: 223–233.
- World Health Organization. 2016. *WHO guidelines on the management of health complications from female genital mutilation*. Geneva: World Health Organization.
- Zervos, Skevos. 1901. *Aetius Sermo sextidecimus et ultimus erstens aus Handschriften veröffentlicht mit Abbildungen Bemerkungen und Erklärungen*. Leipzig: A. Mangkos.
- Zervos, Skevos. 1905. "Peri daknonton zoon." *Athena* 18: 241–302.
- Zervos, Skevos. 1909. "Aetiou Logos pentekaidekatos." *Athena* 21: 3–144.
- Zervos, Skevos. 1911. "Aetiou Logos enatos." *Athena* 23: 265–392.

Late Ancient Christians and the Rise of Medically Perceptible Virginity

JULIA KELTO LILLIS

ABSTRACT: Christians of late antiquity catalyzed a new trend toward viewing women's sexual virginity as a perceivable condition of the body that sex organs can reveal to an observer. In late ancient sources, this virginal condition often takes the form of a hymenal barrier, though some sources suggest instead that virginal vaginas are noticeably narrow or have (enviably or problematically) tight or dry tissue. The notion of a hymen, which seems to have arisen around the second century CE in Rome and Roman North Africa, gained particular traction among late ancient Christians and gradually became a commonplace idea across the Roman Empire. The Christian leaders whose writings attest to the newly available technique of gynecological virginity verification by a midwife show ambivalence toward the technique, and their discussions provide important evidence for late ancient perceptions of female anatomy and female medical practitioners' authority. The issues that surface in these discussions and in other patristic works make it clear that the rise of medically perceptible virginity offered new advantages, yet also posed problems for Christian leaders and their reasoning about virginity.

In the early 390s, a virgin named Indicia became the focus of a scandal in the northern Italian city of Verona. Indicia, like increasing numbers of Christian women, had dedicated herself to lifelong virginity through a vow, but a rumor arose that she had engaged in sexual intercourse with a man. Syagrius, the bishop who received the informal accusation against her, planned to enlist a midwife to inspect Indicia's genitals and give an opinion on whether or not the rumor was true; he consulted Ambrose, an influential bishop in Milan, about the case. In Ambrose's two letters replying to Syagrius (the only sources we have on the incident), the author strenuously objects to the use of gynecological virginity testing. In the course of his arguments, Ambrose comments on the unreliability of midwives' testimony and of virginity inspections themselves, noting a recent case where the virginal status of a female slave was left unresolved.

What about how chief physicians¹ themselves say the credibility of an inspection is not clearly enough understood, and this is in the opinion of ancient teachers of medicine? We also know by experience that between midwives, a difference often arises and a question is

¹ On the varying ancient usage and possible translations of the term *archiatri* (for example, to refer to prominent local physicians or to court physicians), see Dmitriev 2017 and Nutton 1977.

raised, with the result that there is more doubt about the one who has allowed herself to be inspected than about the one who has not been inspected. Indeed, we learned this through a case very recently: for a certain woman of servile condition from Altinum, inspected and condemned, was visited later in Milan – not at my command but in fact by that of Nicensis, a tribune and notary, at the wish of her master and patron – by a most experienced and wealthy woman of this trade; yet even with such (qualities) present that a midwife's poverty did not make her credibility suspect, nor did indocility make her inexperienced, a question still remains, even now.²

What is at stake in Ambrose's objections to medical virginity inspections by midwives? How readily did late ancient Christians turn to such techniques to verify consecrated virgins' sexual virginity, and why would an enslaved woman be subjected to such a test? This essay describes the historical rise of the cultural belief that female virginity is medically perceptible and discusses the particular forms and reasons for this belief among late ancient Christians. In the first section of the essay, I demonstrate that late ancient ideas about perceiving virginity in the female body were innovative developments. Representations of virgins' bodies and of virginity verification in medical sources and other literature support this argument. In the next two sections, I collect our earliest evidence for the notion of a vaginal hymen and speculate about how the notion arose and became commonplace. The fourth section discusses Christian leaders' engagement with the relatively new technique of virginity testing by midwives. A final section considers the way these leaders and their audiences perceived women's anatomy, the reasons for the leaders' ambivalence toward midwives' medical authority, and the benefits and problems that an anatomized model of virginity posed for Christian reasoning and practices.

As we examine conceptualizations of virginity, it is crucial to realize that virginity does not have a self-evident or stable meaning. In ancient Mediterranean and Middle Eastern sources, the difference between a "virgin" and a "woman" refers variously to age, marital status, sexual status, and reproductive status – calling someone a "virgin" can designate her as a teenager, an unmarried maiden, someone who has not experienced penile-vaginal intercourse, or someone who has not yet given birth to children.³ Many early Christians infused the concept of virginity with theological meaning and promoted permanent virginity as a con-

In this passage by Ambrose, the point of the term is to emphasize the high skill level and authority attributed to *archiatri*.

² Letter 56.8, based on the Latin text in CSEL 82.2:88–89 (for the full letter, pp. 84–97). The letter is sometimes listed as Letter 5 (Maurist numbering), Letter 32, or Letter 49. For an English translation of the entire letter, see that of Mary Beyenka in FOTC 26:152–163. The second letter about Indicia's case is available in CSEL 82.2: 98–111 and FOTC 26: 163–171. Translations in this essay are my own except where noted otherwise.

³ The terms "virgin" and "virginity" were commonly used with reference to girls and women and only occasionally with reference to boys or men. The exclusion of men within pre- and non-Christian virginity discourse is slightly overstated in an otherwise helpful recent discussion by Christian Laes (Laes 2013).

secreated lifestyle, but they too produced varied meanings for the concept; sexual inexperience was just one of the possible points of focus. Meanwhile, the notion that sexual virginity can be perceived in the condition of a girl's or woman's sex organs was not a universally familiar one. Rather, this notion appears at particular times and places on the ancient scene, at later times and in more varied forms than we might expect.

1. The Innovative Character of Medically Perceptible Sexual Virginity

The belief that virgins have noticeably virginal vaginas was a relatively new belief in late antiquity. Its first clear appearances in ancient Mediterranean sources come from the second century CE, and widespread evidence does not appear until the final years of the fourth century. The second- and third-century evidence is confined to three sources, one of which is perhaps from Rome and two of which are from Roman Carthage. Prior to the second century, evidence for the idea that virginity is an anatomical state is rare and uncertain. Instead, earlier ancient sources discuss sexual virginity and its loss without reference to immediate, permanent anatomical changes within the body.

Some of these earlier ancient sources mention physiological phenomena associated with virginity loss, such as pain during penile-vaginal intercourse or bleeding following penetration.⁴ Physiological observations are no guarantee of anatomical conceptualizations.⁵ Most sources do not theorize about body parts or vaginal tissue to explain the phenomena, nor do the images and innuendos found across literature convincingly allude to anatomical changes like the rupture of a hymenal membrane or a perceivable widening of the introitus.⁶ As we might expect, the authors of our wealth of surviving early Greek medical literature are the

⁴ An interesting male parallel to female bleeding after penetration occurs in a passage of the Hippocratic corpus, where beginning to engage in sex can cause a young man to bleed from the nose (*Epidemics* 6.3.14).

⁵ With the terms "physiology" and "anatomy," I am distinguishing between the functioning and fluids of the body (what the body does) and the structures or parts of the body (what the body has).

⁶ Ideas and images that interpreters commonly mistake as references to hymens include the likely allusion to post-coital bleeding in Deut 22:13–21, the undoing of knots or girdles as an expression for consummating a marriage in Greek and Roman literature (see Panayotakis 2000), and the use of fresh and damaged flowers in poetry to symbolize virgins or virginity and virginity loss (such as in Catullus, *Poem* 62 and perhaps Sappho, Fragment 105B). Greek and Roman tragedies and comedies often depict virginity loss or sexual penetration in general as violent, yet the imagery does not suggest that authors conceptualize distinctive anatomical features for virgins compared with other women or with males. Prior to very late antiquity, expressions about coitus causing wounding usually refer not to damaging a hymen but to other phenomena, such as partners' mutual lovesickness (for example, Plutarch, *Dialogue on Love* 24). In earlier Sumerian and Akkadian texts that depict first intromission, one can find a reference to a small, unstretched vagina, but not to bleeding or pain, let alone to hymens (see Cooper 2002).

first to provide explanations for bleeding or pain at first coitus. They identify the blood as pent-up menstrual blood trapped in the uterus by a closed cervical os or constricted veins, or trace it to blood vessels that initially stitch together the tissue along the sides of the vagina itself; neither explanation identifies hymen tissue as the source of the blood and discomfort.⁷ In fact, medical authors depict vaginas as naturally unobstructed organs: only in pathological cases do membranes grow across them.⁸ In the minds of medical authors who treated girls and women, a hymenal barrier apparently did not exist in the healthy female body, even for virgins. While physicians perceived differences between the bodies of young virgins and of mature women who had given birth, they mapped these differences onto a continuum of gradual transformation rather than attributing major change to a single act of sexual intercourse.⁹ In most sources antedating 390 CE, medical and otherwise, the loss of sexual virginity is not perceptible in anatomy.

In sources of the very late fourth century and afterward, we find various kinds of evidence for the belief that sex partners or medical experts can perceive the presence or absence of sexual virginity when they encounter a girl's/woman's sex organs. These entail a variety of different ideas about what makes a vagina virginal. Some sources convey that the vaginal canal is barred by a natural seal or membrane, while others correlate sexual virginity with vaginal narrowness; I will discuss these sources in the sections below. The notion that virginity creates physiological evidence through bleeding surfaces in some sources, as well. Virginity accrued other perceptible qualities that appear in pharmacological recipes. Beginning in the late fourth or fifth century, recipe collections came to include instructions for making vaginas seem more virginal. While the precise purposes of the recipes vary and are not always obvious,¹⁰ they all use astringent ingredients that

⁷ For the latter theory, see Soranus, *Gynecology* 1.16 (sometimes numbered as 1.3.16 or 1.5.16). On the sources and concepts of the earlier theory, which is found in the Hippocratic Corpus, see Dean-Jones 1994, 47–55.

⁸ For example, vaginas are described as naturally unobstructed in Soranus, *Gynecology* 1.17 and 1.34–35. See the earlier sources discussed in Hanson 1992a, 243–244. Pathological genital membranes are discussed by writers of various periods, including Aristotle (*Generation of Animals* 4.4.773a), Celsus (*Medicine* 7.28), and Aetius of Amida (*Tetrabiblion* 16.51 and 96, also known as *Gynecology* 51 and 96, according to Ricci's numbering in *Aetios of Amida*). Hanson suspects that the uterus was thought to be sealed shut before sexual initiation in popular Greek thought, with a barricade at the mouth of the uterus rather than the vagina: see Hanson 1990.

⁹ Differences between the reproductive systems of women at different stages of life are noted, for example, in Celsus, *Medicine* 4.1 and in some sections of Soranus, *Gynecology* 1. Some scholars mistakenly take these observations as evidence that physicians could verify sexual virginity or were interested in doing so. On the gradual transformation of virginal bodies into womanly bodies, see King 1998, chapter 1 (especially 27–35) and 70–72; Hanson 1992b; Hanson 2007.

¹⁰ Some pharmacological recipes promise that a woman “will be like a virgin during intercourse”; some with similar statements or ingredients aim to solve difficulties with conception; one is for a “woman who has been forced,” but we are not told whom she must convince or reassure about her state. Three of the recipes come from Pseudo-Galen, *Remedies Easily Prepared* 26 (sections 12 and 38; the texts are available in Greek and Latin in CGOO 14:478, 485, 486). Another

could make tissue tighten, swell, or become less moist. Virginal vaginas, in other words, are noticeably dry, firm, and/or narrow.

Changes in methods of verifying sexual virginity reflect the novelty of the late ancient belief that virginity can be perceived in female anatomy. Most ancient virginity tests are ordeals, not bodily examinations.¹¹ In Greek and Roman literature, a woman accused of compromising her virginity – or her marital chastity – is placed in a situation where divine or natural forces can confirm her innocence or guilt.¹² Meanwhile, Roman brides broadcast their virginal status at their weddings through customary apparel and symbols, much as modern brides in Western societies have often symbolized their sexual purity with a white wedding dress.¹³ In pre-Talmudic Jewish sources, the vague procedure of Deuteronomy 22:13–21 receives varying interpretations,¹⁴ and the Mishnah's forms of proof for premarital virginity include verbal testimony that the bride's wedding involved conventional signals of her virginal state.¹⁵ Scholars frequently superimpose later concepts onto early sources, creating the mistaken impression that we have ample evidence for

pair is recorded (with attribution to the earlier female physician Aspasia) in Aetius's sixth-century *Gynecology* 66/67 (or *Tetrabiblion* 16.66/67) – chapter 67 in Ricci's English translation and 66 in the available Greek edition, Zervos's *Gynaekologie des Aëtios*, 95. Four recipes are included in the work *Female Diseases*, attributed to the female physician Metrodora and in circulation by the sixth century, in sections 23 and 32; Greek texts are available in del Guerra's *Metrodora* (pp. 44–46, 50) and in Kousis's "Metrodora's Work 'On the Feminine Diseases of the Womb.'" See brief discussion of these types of recipes in Hanson 2007. Possible consumers include wives and sex workers as well as new brides. None of the recipes implies that the goal is to fool medical experts about one's virginity.

¹¹ On the occasional appearance of bodily indicators of virginity in Greek and Roman sources, such as the idea that beginning to have sex causes changes to a girl's voice quality or neck size, see Hanson and Armstrong 1986. On oaths and ordeals (and the absence of bodily inspection) in earlier Middle Eastern sources, see Cooper 2002.

¹² For example, several Roman historians and Christian writers tell the stories of Tuccia, a falsely accused Vestal Virgin who proves her innocence by carrying water in a sieve, and of the matron Claudia Quinta, whose chastity was no longer doubted once she received incredible strength to haul a ship ashore by a rope. Virginity and chastity are verified in some literature by the behavior of bodies of water (particular rivers or springs that rise or do not rise) when a woman enters them. Novels like Achilles Tatius's *Leucippe and Clitophon* and Heliodorus's *Ethiopian Story* recount dangerous ordeals that test the virginity of a woman or man. Examples and sources are provided in Lillis 2016. See also Foskett 2002, 63 and 192; and Sissa 1990a, 83–86 and 204–206.

¹³ Hersch 2010.

¹⁴ In the biblical passage, parents of a new bride prove their accused daughter's premarital virginity by showing a cloth to city elders as evidence. Two interpretations of the procedure are given in *Sifrei Devarim* 235–237 (roughly contemporary with the Mishnah); the forms of proof are left unspecified in Josephus, *Jewish Antiquities* 4.246–248 and Philo, *Special Laws* 3.79–82. Most modern interpreters understand the evidence to be blood from the wedding night, though some have proposed alternatives – for example, Wenham 1972.

¹⁵ See Mishnah *Ketubot* 2:1. Note that some discussions of virginity expect women to be able to supply evidence for loss of virginity in circumstances where the opportunity for physiological evidence would likely be impossible (for example, Mishnah *Ketubot* 1:6–9); witnesses seem more plausible.

an existing practice of virginity inspections by midwives around the beginning of the Common Era. In actuality, it is unclear whether the two references to investigations of virginity in the Dead Sea Scrolls entail genital examination,¹⁶ and the second-century *Protevangelium of James* depicts midwives examining Mary's body after she gives birth to Jesus in order to certify that her body miraculously looks *reproductively* virginal – as though she has not gone through childbirth – not in order to determine her sexual history via hymenal integrity.¹⁷ The earliest clear reference to midwives ascertaining virgins' sexual virginity by genital examination appears in a letter by Cyprian, a mid-third-century Christian bishop of Carthage in North Africa. The next references come from other Mediterranean regions in the 390s (I discuss these below). Christian texts of the fifth to seventh centuries show widespread familiarity with the notion that midwives can verify virginity. The spread of the notion near the end of the fourth century temporally coincides with other evidence I discuss in the next sections for the late ancient belief that women's bodies indicate whether or not they are sexually virginal.

Despite midwives' significant role in the new ways of conceptualizing virginity and its proofs, the idea of verifying virginity by gynecological inspection is entirely absent from ancient medical sources, even in late antiquity. Most ancient physicians do not offer means or motive for determining whether someone has ever had sexual intercourse. The first medical mention of a method for testing virginity comes from one of the recipe collections listed above, Metrodora's *Female Diseases*, which originated sometime prior to the sixth century. Among its pharmacological instructions is a pair of techniques for determining "whether a woman is a virgin," and both options focus on her urine, not on inspecting anatomical features.¹⁸

Scholars of multiple disciplines have incorrectly assumed that people of any ancient society could have resorted to vaginal inspection for testing virginity. For this to be the case, all societies would have to believe that female virgins' organs have a distinctive feature that is permanently changed by sexual intercourse (such as hymen tissue that bars the vagina, is always destroyed by penetration, and does not disappear without penetration). They would also have to believe that an ob-

¹⁶ The two passages, 4Q271 3.10–15 and 4Q159 2–4.8–10, refer to two different scenarios (one before marriage and one after consummation of a marriage). For an influential interpretation that turns too readily to later notions about virginity to understand these early sources, see Tigay 1993 regarding 4Q159.

¹⁷ Lillis 2016. Later ancient sources that recast the nature of this test are referenced below.

¹⁸ This is Metrodora's *Female Diseases* 33, based on the Greek text in del Guerra, *Metrodora*, 50. The first procedure is to place a fresh lentil in a jar and have the woman urinate upon it; a virgin's urine will make the lentil puff up. The other procedure is to perform a fumigation with a type of black stone that will cause a non-virginal woman to urinate. Urine remained an important source for information about virginity in medieval medical works. Again, the late ancient pharmacological recipes for mimicking virginity appear to serve a variety of situations and purposes, but none implies that virginity examinations by medical practitioners were a common practice. The market for recipes that render vaginas more virginal arose to address (or create) other needs.

ity of female virginity and the possibility of medically detecting it. The other case that he mentions in the letter is that of an enslaved girl, and he does not explain why anyone would have their slaves inspected. It may be that Christians' prizing of virginity and endorsement of anatomical conceptualizations was beginning to bring new forms of bodily scrutiny into the lives of slaves.⁵²

John Chrysostom is the earliest Greek author to mention the practice of gynecological virginity tests. He does so in the treatise *The Necessity of Guarding Virginity*, which he probably wrote in Antioch during the late 380s or early 390s.⁵³ Like Cyprian, Chrysostom is concerned with the cohabiting of female virgins with men. He refers to gynecological inspections in two passages as he attacks the practice of cohabitation. The first hyperbolically describes incessant virginity testing by midwives:

(There is) a sprint for midwives every day to the virgins' houses, just like (when they run) to those laboring in childbirth, not in order to deliver someone giving birth – for this too has happened sometimes – but in order to determine, just like those purchasing female slaves, who is ruined and who is unharmed. One (virgin) readily submitted to the examination, while another resisted, and by this very (act) departed disgraced, even if she had not been ruined; and the one was caught, the other not, while the latter, in turn, is no less ashamed than the former, since she was not able to make her trustworthiness known from her manner but needed the evidence that comes from close inspection.⁵⁴

Chrysostom spells out the purpose of the test – determining who has been corrupted (*diephtharmenē*) and who is unharmed or untouched (*anepaphos*) – perhaps because such testing falls outside the more familiar range of tasks that midwives of the day performed.⁵⁵ He links inspections with the examination of slaves' bodies to emphasize the shamefulness of the practice. Like Ambrose and unlike Cyprian, he acknowledges that inspections are an affront to modesty.

⁵² Many scholars assume that sexual virginity was valued on the slave market in the ancient Roman Empire, but evidence is scarce and scattered before very late antiquity, and the reasons for elevated value are unclear. Given the importance of natural reproduction for the slave supply, one would expect evidence of fertility to be more important. Slaves' whole bodies, however, were often examined before a purchase. It is possible that a form of sexual virtue became important for household slaves of Christian owners. See Harper 2011; De Wet 2015; De Wet 2018.

⁵³ Ancient sources point to two different dates for the treatise, and some scholars suggest that Chrysostom issued it both in Antioch and, later, in Constantinople; see Dumortier 1949. For a compelling argument that it was composed in Antioch but at a later time than its conventional placement in the early 380s, see Leyerle 2001, 213–220. Full English translations of this text and its companion work, *Instruction and Refutation Directed Against Those Men Cohabiting with Virgins*, are available in Clark's *Jerome, Chrysostom, and Friends*, 158–248.

⁵⁴ *The Necessity of Guarding Virginity* 2, based on the Greek text in Dumortier's *Saint Jean Chrysostome*, 100.

⁵⁵ Studies and ancient sources cited earlier in this essay show that midwives had long provided a range of prenatal, parturitive, and postpartum care (sometimes alongside physicians), and oftentimes other gynecological care, as well.

In a second passage, Chrysostom insists that bodily purity requires more than untouched genitals – hence one cannot appeal to the availability of virginity tests in order to justify cohabitation. He writes that “a midwife’s wisdom and skill is able to see only such a thing as whether the body did not (previously) accept sexual intercourse with a man,” while the future day of judgment will reveal whether a virgin has also preserved herself from other body-defiling activities like kisses and embraces and is thus truly pure and uncorrupt.⁵⁶ Throughout the treatise, he argues that virginity requires proper purity and orientation toward Christ in a virgin’s entire way of life. Unlike Cyprian, Chrysostom does not advocate the use of virginity testing, but he shares the assumption that midwives who perform inspections can determine whether a female virgin has engaged in sexual intercourse.

While these writers hold varying positions on the effectiveness of virginity inspections and do not specify the exact feature(s) of the vagina that will prove or disprove virginity, all three believe that female virginity is concretely evident in female sex organs. Augustine’s *City of God*, written in the 410s, elaborates on the idea of hymenal (or hymen-like) integrity and shows that assumptions about anatomical evidence and medical verification were firmly entrenched in late ancient North Africa.⁵⁷ Multiple passages deal with genital intactness,⁵⁸ and in an illustration concerning a midwife who accidentally destroys this form of integrity, Augustine expects readers to be familiar with the practice of virginity inspections.⁵⁹ In contrast to the previous three authors, he does not discuss whether such tests are reliable or adequate, nor does he address whether they ought to occur. He refers to them in a matter-of-fact way to illustrate a larger point about the resilience of chastity and holiness in the face of sexual violence.⁶⁰ By this point, virginity in-

⁵⁶ *The Necessity of Guarding Virginity* 3 (based on Greek from Dumortier, *Saint Jean Chrysostome*, 106).

⁵⁷ Augustine writes from this region to a wider Latin-speaking audience affected by the recent sack of Rome.

⁵⁸ The *City of God* contains multiple passages that allude to a hymen or hymen-like concept; in these instances, Augustine refers to “integrity” (*integritas*) in a more concrete way than many previous authors had done. In newlywed sex, a husband performs an act of perforation upon his wife (6.9); in a world without sin, semen would have entered a womb without disrupting its integrity, just as menstrual blood can leave the womb of a virgin (14.26); in giving birth, Mary’s womb stayed closed like locked doors (22.8). See the next note for a fourth passage. Augustine also makes virginity and integrity nearly synonymous in his works, juxtaposing virginal integrity with marital fecundity or with the alternative chaste lives of marriage and widowhood (within *City of God*, see 1.27).

⁵⁹ The passage appears in *City of God* 1.18 and reads: “It is not by this that the body is holy, by the fact that its parts are intact ... For example, a midwife, when investigating a certain virgin’s integrity by hand, destroyed it, whether by spite or lack of skill or accidentally. I don’t imagine anyone thinks so foolishly that they’d consider anything to have been lost even from the sanctity of her very body, even though the integrity of that body part has been destroyed” (translated from CCSL 47:19). English translations of the larger work are widely available.

⁶⁰ One of Augustine’s arguments in 1.16–1.29 about the aftermath of the sack of Rome is that rape cannot forcibly affect a person’s chastity; rape victims whose wills remained resolutely op-

server – a trained one, at least – can verify by sight or touch whether such a feature persists. Scholars' misunderstanding stems from faulty modern assumptions about the nature of hymen tissue¹⁹ and from the difficulty today of imagining that people of another time and place could view, count, and understand body parts in ways quite different from ours. Preconceptions about a universal belief in hymens and their usefulness for assessing virginity have led scholars to misconstrue passages and literary scenes,²⁰ to deny that male physicians had direct knowledge of girls' and women's bodies,²¹ to create unnecessary (albeit ingenious) explanations for the surprising absence of virginity inspections as a means of proof in early sources,²² and to assume that the hymen's absence in ancient medicine must have been an innovative challenge to alternative knowledge of the female body among midwives or the population at large.²³ It is more likely that belief in hymen tissue and the practice of genital inspection were not universally available in antiquity, but were non-existent in most Mediterranean and Middle Eastern societies until their debut in a range of late ancient sources.

2. The Invention of the Hymen: Medical and Etymological References

Ancient Greek and Latin sources that collect medical information or offer information on words' origins and meanings provide valuable data on the emergence of the hymen as an anatomical concept. During the first several centuries of the

¹⁹ According to current Western biomedical science, hymen tissue has no clear function and may simply be a byproduct of growing a vagina. Its shape, thickness, and resilience vary greatly from person to person, changing at certain stages of life in response to hormonal changes. Some people with vaginas have hymen tissue that ruptures during athletic activity, while others' withstands initial sexual encounters. Increasing numbers of health experts caution that this tissue cannot provide reliable information about female sexual history or sexual abuse, especially when there is no prior record or photograph for comparison. See Lillis 2021; Pillai 2008.

²⁰ For example, some have taken Soranus, *Gynecology* 1.34–35 as a reference to premarital virginity inspections rather than premarital assessments of reproductive health and the likelihood of fertility (assessments that assume a virgin or health professional has unobstructed access to her cervix and uterus). Mistaken assumptions often appear in interpretations of literary passages like *Protevangelium of James* 19–20 and *Leucippe and Clitophon* 2.28.

²¹ In contrast, various studies show that male physicians treated female patients and sometimes had firsthand knowledge of female reproductive anatomy. These include Lloyd 1983; King 1998; Dean-Jones 1994; Kosak 2016; Flemming 2000. Ancient medical equipment included the vaginal speculum (Jackson 1990).

²² Scholars from various fields explain this absence by speculating that gynecological tests would violate an ancient society's ideals of feminine modesty, by interpreting events in stories as displacements or substitutions for a genital inspection, or by arguing that a rival meaning or criterion for virginity was prioritized above anatomical intactness. Examples include Wegner 1988, 22–23; Parker 2004, 587; Morales 2004, 193–196; Dunning 2011, 111–112.

²³ See, for example, Clark 1993, 74–75; Goldhill 1995, 116.

Common Era, the term “hymen,” which had been a word for a “membrane” found in various parts of the human or animal body, gradually began to designate a special membrane found in virgins’ vaginas. A separate set of meanings for “hymen” terms pertained to nuptial celebrations, especially a hymn or refrain sung at weddings, the *hymenaeus/hymenaios*.²⁴ Only in very late antiquity did etymologists begin to draw a connection between these separate nuptial and anatomical groups of words.

The notion of a virginal hymen first appears in a passage where a physician denies that it exists. The passage appears in critical editions of the *Gynecology* of Soranus of Ephesus, who practiced in Rome in the early second century. New work questions the attribution to Soranus, making the identity and gender of the author and the exact date in the early Common Era less certain. The author raises and refutes an idea held by unnamed contemporaries: “The supposition that a delicate membrane grows across and obstructs the vagina, and that it bursts during losses of virginity and brings pain (or when menstruation occurs sooner), and that when it stays and solidifies it produces the condition called atresia, is false.”²⁵ This physician goes on to list a series of proofs, such as the membrane’s absence in dissection and the fact that one is able to insert an examination probe when examining a virgin. Like other physicians whose gynecological works survive, the writer understands the vagina as an organ that ordinarily lacks a virginal barrier. The passage does not explain who it is that subscribes to the idea that virgins have hymens; scholars have variously suggested the Roman midwives addressed in Soranus’s *Gynecology*, doctors in Rome, or the general Roman populace.²⁶ An intriguing proposal by Giulia Sissa locates the origins of the hymen in upper-class Roman men’s anxiety about perceived improvements in contraceptive techniques: since it could no longer be assumed by the first century CE that women engaging in illicit sexual activity would become pregnant, the hymen arose as an alternative way to find a reassuring bodily mechanism for monitoring female chastity.²⁷ If the attribution to Soranus is correct, the idea emerged in Rome in time for him to argue against it in the early decades of the second century (the 130s at the latest). If not, another physician authored the passage early enough for Oribasius to include it in a mid-fourth-century compilation of medical works.²⁸

Apart from Oribasius’s inclusion of this refutation, the notion of a virginal hymen does not appear in surviving medical literature until the seventh century

²⁴ On wedding traditions and terminology, see Hersch 2010; Hague 1983; Sissa 1990a, 105–109. For further discussion of the early Greek sources, see Contiades–Tsitsoni 1990.

²⁵ Soranus, *Gynecology* 1.17, based on the Greek text in Burguière, Gourevitch, and Malinas’s *Soranus d’Ephèse: Maladies des femmes*, 1:14–15. For an English translation of the surrounding passage, see Temkin’s *Soranus: Gynecology*, 14–16.

²⁶ Clark 2011, 224; Rousselle 1988, 27, 33; Sissa 2008, 90–91, Sissa 1990a, 114, 165–177, and Sissa 1990b, 361–363.

²⁷ Sissa 2013, 96–97, 103–117.

²⁸ Oribasius, *Medical Collections* 24.31.

CE. In an Alexandrian commentary on a Hippocratic work, Stephanus of Athens makes the first extant attempt to integrate a hymen into medical conceptualizations of female anatomy. He envisions a membrane located at the cervical os rather than near the introitus, and proposes a complex explanation for how menstrual blood can exit the sealed womb of a virgin.²⁹ One can see in his attempt that the belief in hymens as a closed seal for the reproductive system sits uneasily alongside long-held medical assumptions and practical observations about virgins' anatomy and physiology.

Etymological discussions testify to the newfound popularity of the idea of a hymen in very late antiquity. Comments on the origins and meaning of the term *hymenaeus* or *hymenaios* incorporate anatomical definitions for the term "hymen" in a seventh-century encyclopedia and in Latin commentaries composed in layers between the late fourth century and the seventh or eighth. These sources first list more conventional etymologies drawn from mythology, relaying that the figure Hymen is the god of weddings or was once a human who founded weddings, who enjoyed a particularly happy one, or who suffered a tragic misfortune at the time he was supposed to marry. As a second or third possibility, each author adds that "hymen" is a name for a part of the body found in virgins. In Isidore of Seville's encyclopedic *Etymologies*, which is largely a compendium of fourth- to sixth-century authors, Isidore explains that the *hymenaeus* received its name from "a certain Hymenaeus, who was the first to enjoy a fortunate wedding," or "from the term *hymēn*, the membrane that is the closed gateway of virginity."³⁰ Likewise, commentaries on Terence and Vergil composed by (respectively) Aelius Donatus and Servius (and their later editors) append an anatomical gloss to more standard explanations. Aelius Donatus or a later redactor concludes by saying, "Others – because the hymen is said to be some sort of membrane, by which virginity is defended, which is destroyed at first coitus – think that the *hymenaeus* is so called as a hymn of virginal weddings."³¹ Servius or a later redactor writes at the end of his discussion, "There is also another explanation for the term; for a hymen is said to be some kind of membrane – a virginal one, as it were – of a girl; since she ceases to be a virgin once it has been ruptured, weddings are called hymeneal."³² Their comments draw a tentative connection between familiar, nuptial "hymen" terms

²⁹ Stephanus, *Hippocratic Aphorisms* 5.63 (CMG XI 1.3.3:162–164). For helpful background and careful analysis of the text, see Musgrove 2017.

³⁰ *Etymologies* 9.7.22, as translated by Barney et al. in *The Etymologies of Isidore of Seville*, 211; for Latin, see Reydellet's *Isidore de Séville. Étymologies, livre IX*, 235. The term translated as "closed gateway" is *claustrum*, which can refer to a barrier, defensive wall, closed door, or lock.

³¹ Aelius Donatus, *Brothers* 904, or *Adelphoe* 5.7.6 in the Latin available in Wessner's *Aeli Donati quod fertur Commentum Terenti*, 2:171–172 (quotation translated from 172).

³² Servius initially attends to the term in 1.651 of his *Commentary on Vergil's Aeneid*, but this quotation is from the second passage on the term, 4.99 (and see 4.127 in the longer version of the commentary); I translate from the Latin of 4.99 in Rand et al.'s *Servianorum in Vergilii carmina commentariorum*, 3:286–287.

and the relatively recent invention of a virginal, genital barrier called a “hymen”. The hymeneal becomes hymenal.

How did the notion of a virginal hymen transform from an idea dismissed by a physician into a prevalent part of virginity discourse? What advantages and forms of credibility accrued to the idea to enable this transformation? In the gap between an initial refutation and eventual induction into medical and etymological discussions, our best evidence for the rise and spread of belief in a virginal hymen comes from Christian and Jewish sources.

3. The Growing Prevalence of the Hymen: Christian and Jewish Sources

As we saw above, the idea of virgins having a vaginal hymen seems to have originated somewhere in Roman society of the early Common Era, possibly in Rome itself by the early second century, before becoming mainstream. Some scholars associate its appearance with the intense surveillance of female sexual purity found in monotheistic religious traditions,³³ but we lack evidence that the notion of a hymen was initially generated by the ideas about virginity found in Jewish scriptures or by the value of virginity in emerging Christianity. Jews and Christians of the earliest centuries CE usually promoted their idealized forms of virginity without any reference to the idea of a hymen;³⁴ polytheistic groups continued to prize and monitor women’s sexual purity as well. It is true, however, that Jewish and Christian traditions played important roles in the development and spread of the concept of a hymen. While it is likely the case that neither Christians nor Jews invented the idea, it came to have enormous importance in some Christian and Jewish circles, and these traditions catalyzed its growing popularity.

Jewish sources show increasing specificity about the bodily features of sexual virginity. Female premarital virginity is a topic of concern in the Hebrew Bible and pre-Talmudic literature, and beginning in about the fifth century, discussions of female virginity sometimes include reference to hymens or to a kind of vaginal narrowness that proves a new wife is virginal. Writings of the first, second, and third centuries CE, including passages in the Mishnah and comments on Deuteronomy 22, sometimes refer to physiological evidence like bleeding or to evidence like verbal testimony, yet none describes anatomical structures like a hymen or makes clear reference to anatomical forms of proof.³⁵ Subsequent sources, on the

³³ Even Sissa, who suggests other factors for the rise of the hymen in Roman thought, tends to associate the demand for hymenal integrity with “the threatening pathos of Christian and other monotheistic sexualities” (Sissa 2013, 88, with similar associations in Sissa 1990a and 1990b).

³⁴ See Lillis 2022.

³⁵ See notes 14 and 15 above and further sections in Mishnah *Ketubot* 1 and 2. Interpreters frequently import the concept of a hymen into passages that do not give strong evidence for it, draw-

other hand, introduce anatomical conceptualizations of virginity. The Talmuds and other late ancient sources, such as *Genesis Rabbah*, consider divergent definitions for virginity and supply varying ideas for what makes vaginas noticeably virginal. In some cases, bleeding remains a significant phenomenon, but in other cases, the focus falls on the presence of a hymen or on narrowness or tightness that writers characterize as a “closed door,” in contrast to an “open door.”³⁶ One passage in the Babylonian Talmud describes a rabbi experimenting with a virginity testing technique that probably relies on virgins’ bodies having some sort of internal barrier.³⁷

In Christian sources, the virginal reproductive system eventually takes on a quality it previously lacked: the womb or vagina is “closed” or sealed off until – or unless – it is permanently “opened” by penetration. This closure is often envisioned as a door or lock, in ways that suggest a membrane or barricade.³⁸ Tertullian of Carthage, writing at the dawn of the third century, is the first Christian author to have utilized an anatomical definition for virginity.³⁹ In the 390s and early fifth century, various Christian writers suddenly took up his unusual defini-

ing on later elaborations to explain earlier content; this happens often, for example, with Mishnah *Ketubot* 3:1–2 and Mishnah *Niddah* 5:4. For a helpful study of proofs for virginity in Second Temple and Rabbinic literature (employing slightly different categorizations than mine), see Rosenberg 2018. Rosenberg examines the varying kinds of physical proof found in different sources, such as the Mishnah’s focus on bleeding and perhaps temporary lacerations (pp. 99–107); later works add forms of proof that I categorize as anatomical (see the discussions of Talmudic passages on pp. 59–70 and 119–147).

³⁶ Key passages include *Ketubot* 1:3/25c of the Palestinian Talmud, which mentions the possibility of virginity signs remaining in place when sexual penetration is not very forceful (see also the reference to virginity signs falling out prematurely in *Ketubot* 1:1/25a); *Genesis Rabbah* 60:5, where the vagina serves as a site of virginal proof and rabbis debate whether non-sexual loss of virginity signs renders someone non-virginal; *Niddah* 45a in the Babylonian Talmud, where the idea of reappearing virginity signs (here, blood) may indicate the notion of regenerated tissue; and distinctions between grooms’ claims about not finding blood and their claims about finding an open door in *Ketubot* 9b–10b of the Babylonian Talmud. At this stage, an open door probably refers to vaginal wideness or looseness, and it is possible that a reference to a bolt in *Ketubot* 10a adds a hymen into the picture; virgins’ vaginas are expected to be noticeably narrow or tight, not simply to offer the physiological sign of blood to prove premarital virginity.

³⁷ *Ketubot* 10b in the Babylonian Talmud. The testing technique appears to be adapted from a fertility test found in Egyptian and Greek medical sources, where interior constriction or obstacles (such as misalignment of the uterus or temporary closure of the uterine mouth) prevents fumes from passing through the otherwise open pathway connecting women’s genitals to their mouths. In the Talmud, the test seems to determine whether or not a woman is sexually virginal: sexual intercourse causes something closed within the female body to become permanently open.

³⁸ Occasionally a writer notes that the seal cannot be a complete vaginal barrier; Augustine of Hippo, for instance, mentions that menstrual blood leaves virgins’ wombs without damaging hymenal integrity (*City of God* 14.26).

³⁹ In *Flesh of Christ* 23, he explains that Mary was a virgin so long as her womb remained closed, but that she ceased to be a virgin and became a married woman when her son was born – even though it was the birth of an infant and not sex with a husband that opened her closed womb. His goal in this passage is to refute views of opponents who claimed that Christ did not have real human flesh. Tertullian defends his position by depicting Christ as a fully human infant

tion for their descriptions of Mary's perpetual virginity.⁴⁰ Late ancient discussions of Mary's virginity transform biblical language about opened and closed wombs, which originally referred to fertility and infertility, into a vocabulary for describing lost virginity and preserved virginity. Some writers, like Ambrose of Milan, make Mary's closed sex organs paradigmatic for the anatomically closed and socially secluded state of consecrated virgins.⁴¹

The development of anatomical conceptualizations for virginity is also evident in retellings of Christian nativity stories in late antiquity. When late ancient writers depict Mary's virginal postpartum state or midwives' investigation of her status, many add details the second-century *Protevangelium of James* did not include. Instead of simply looking reproductively virginal – untouched by the messy impurity and painful changes of childbirth – Mary's organs are said to stay closed or sealed in a way that proves her sexual virginity.⁴² In these stories of the fifth to seventh centuries, Christians take it as a given that midwives can inspect women to verify whether or not their vaginas have been penetrated. The earliest evidence we have for midwives conducting virginity tests comes from Christian authors, as well. We turn to that evidence next.

4. The Rise of Virginity Inspections by Midwives

The first extant texts that refer to gynecological virginity inspections are letters and treatises by the Christian authors Cyprian of Carthage, Ambrose of Milan, John Chrysostom, and Augustine of Hippo.⁴³ These writers express ambivalence toward examination-based virginity tests and the expertise of the midwives who

whose exit from Mary's organs changes her body. Tertullian uses a variety of non-anatomical definitions for virginity in the rest of his writings; see especially *Veiling of Virgins*.

⁴⁰ Several examples are collected in Lillis 2017. While Tertullian claimed that Mary's womb was opened by giving birth to Jesus, later writers used the same definition to make the opposite claim: her womb remained miraculously closed when she gave birth, allowing her to remain a virgin perpetually.

⁴¹ See, for example, *Education of a Virgin* 8.52–9.62. For a fuller picture of Ambrose's investment in the idea that Mary's and other virgins' wombs are concretely closed, see the earlier sections of *Education of a Virgin*, *Exhortation to Virginity* 6.35, and *Letters outside the collection* 14.33 and 15.6 (the Maurist numbers are 63 and 42). Ambrose's earlier works on virginity appeal to broad notions of virgins' bodily purity instead of anatomical ones.

⁴² Examples include the Syriac verse homily *Mary and Joseph* (lines 206–209) and Syriac dialogue poem *Mary and Joseph* (stanzas 10, 20–22), which anatomize Mary's virginity during pregnancy (both translated in Brock, *Bride of Light*); a Latin infancy Gospel known as the *J Composition* (sections 75 and 77), available in Bart Ehrman and Zlatko Pleše's *The Apocryphal Gospels*; Maximus the Confessor's *Life of the Virgin* 46–47 (cf. 68, 115; translation and discussion of the uncertain authorship are available in Stephen Shoemaker's *The Life of the Virgin*). On the reception and reworking of the *Protevangelium* more generally, see Voicu 2011 and (with some conclusions that differ slightly from mine) Emmenegger 2014, 197–256.

⁴³ Many scholars understand two passages in the Dead Sea Scrolls as evidence for gynecological

perform the tests. I provide here a brief description of the situation each author addresses and the comments he makes. In the final essay section below, I consider what the passages suggest about perceptions of female anatomy and female medical authority among Christians of the time, and I briefly discuss benefits and drawbacks that Christian leaders encountered as they espoused a medicalized view of virginity.

An outlier in its early date, Cyprian's *Letter 4* gives evidence for virginity inspections in the middle of the third century.⁴⁴ In this letter, Cyprian and a group of fellow clergymen write to another bishop, Pomponius, about a disciplinary situation. Certain men of Pomponius's North African Christian community have been sharing beds with women who are vowed virgins. The women claim that they are still virgins. Cyprian, like many writers after him, heartily disapproves of these relationships.⁴⁵ He affirms Pomponius's decision to excommunicate the men and advises that Pomponius set the extent of each female virgin's penance based on whether her claim to remain virginal is truthful. Cyprian instructs Pomponius to have midwives conduct careful examinations of the women, though he expresses unease about the reliability of these examinations and the possibility that having such methods available will become a warrant for continent cohabitation.

Let no one think she can be defended [in her plan to live with and sleep beside a man] with the excuse that she can be inspected and it can be proved whether she is a virgin, since the hand and eye of midwives may often be mistaken; and if she is found to be an uncorrupted virgin in that part in which a woman can be, she still could have sinned with some other part of the body that can be corrupted and yet cannot be inspected. ... If the virgins have done penance for this illicit bed-sharing and they have withdrawn from each other, let the virgins be carefully inspected by midwives in the meantime, and if they have been found virgins, let them be admitted (back) to the Church ... If, however, some of them have been discovered to be corrupted, let them do full penance, since she who has committed this crime is an adulteress – not against a husband, but against Christ.⁴⁶

Cyprian portrays midwives' virginity inspections as unreliable for assessing "corruption" of the genitals and insufficient for measuring sexual corruption as a whole. Even so, he instructs Pomponius to request and rely on midwives' expertise as a basis for decisions about penance requirements. These North African church leaders appear to be familiar with the task of genital inspection as a means for verifying virginity. The Christian authors who provide our next testimonies to the

logical verification of virginity (one while virginity is still present, one when it has recently been lost). See note 16 above.

⁴⁴ This is the numbering for the letter in CCL 3B:17–26; it appears in some collections as *Letter 61* or *62*. English translations of Cyprian's letters are available in several different series.

⁴⁵ The cohabitation of celibate men and women in continent, quasi-marital relationships was quite common, or at least very frequently discussed and prohibited by ancient Christian leaders. For background and sources, see Clark 1997; Castelli 1986; Leyerle 2001, 75–99; Neureiter 2006.

⁴⁶ *Letter 4.3–4* (CCL 3B:20–23).

practice express stronger reservations, and their discomfort might reflect the relative novelty of the practice in their regions.

Ambrose alludes to midwives' verifications of virginity in his treatise called *Widows*.⁴⁷ He discusses virginity testing at greater length in a letter written to a fellow North Italian bishop, Syagrius of Verona, during the 390s (on the situation described at the start of this essay).⁴⁸ *Letter 56* is probably an attempt to discourage Syagrius from submitting Indicia to a medical examination in order to resolve the question of whether she is sexually virginal.

Ambrose's letter is filled with objections to the practice of virginity inspections.⁴⁹ He calls them harmful, shocking, shameful, and a violation of modesty – a practice that imperils or compromises the true substance of virginity, which is a virgin's modest character and behaviors. He repeatedly claims that the results of inspections are dubious; midwives often lack proper skill or are susceptible to bribery and favors, and even a well-trained one might not be able to resolve the question satisfactorily. As we saw in the passage cited at the beginning of this essay, Ambrose relates that highly placed physicians have doubts about whether such a practice is effective. He portrays virginity examinations as an innovation upon midwives' usual tasks, and he endorses traditional means of proof: virginity is proven by testimony to a virgin's sound character and modest behavior, while its loss is proven by the physical signs of pregnancy. His sarcastic comments show that gynecological inspections were not at all routine for assessing virginity in his time and place: "Should those about to marry be inspected first so that they may marry with more esteem? Are those taking the veil [as lifelong virgins] to be subjected to this kind of handling beforehand?!"⁵⁰ Midwives' inspections certainly do not seem to have been standard procedure for Roman legal proceedings or in society at large.⁵¹

It is difficult to guess whether Ambrose would have approached the case differently in other circumstances. We learn from the final paragraphs of the letter that Indicia was a friend of his own family members; his sister Marcellina, who was also a consecrated virgin, knew Indicia personally and vouched for her virtuousness. In other works, Ambrose capitalizes on the idea of virginal women having closed sex organs, but when confronted with the practical application of this belief to a situation like Indicia's, he seeks to sever the link between the perceptible qual-

⁴⁷ In *Widows* 4.26, Ambrose mentions that virgins' reputations are sometimes saved by midwives' testimony to their bodily integrity. He does not provide further details or opinions about the practice.

⁴⁸ Scholars have often dated the letter to 380, but see the points in favor of a later date in FOTC 26:152, note 1 and a dating of about 394 in Uhalde 2013, 68, with note 121 on 168.

⁴⁹ Again, Latin is available in CSEL 82.2:84–97, and a full English translation appears in FOTC 26:152–163.

⁵⁰ *Letter 56.7* (CSEL 82.2:88).

⁵¹ On legal and social means of ascertaining virginity, see Jaeger 1965, 516–517; Sissa 2013, 103–107; Caldwell 2015, 45–66; Grubbs 1995, 193–202.

spectations by midwives were a familiar technique in North Africa and had gained currency among Christians around the Mediterranean world.

5. Late Ancient Christian Perceptions and Problems Concerning Virginal Anatomy

Our scattered evidence for the conceptual origins of the hymen and the rise of perceptible sexual virginity suggests that Christians did not invent the idea of a virginal hymen, but invested in it as lifelong virginity became an increasingly institutionalized Christian lifestyle. Carthage, a location for which we have unusually early evidence for formal recognition of virginity vows in the church community,⁶¹ is also the home of the two third-century writers who provide our earliest evidence for the notion of a “closed” virginal womb and the possibility of testing virginity by medical inspection. In the 390s, Latin-speaking Christian bishops and monks engaged in a debate known as the Jovinianist controversy, which included the question of whether Mary remained a virgin in the act of giving birth and which foregrounded the question of whether ascetic celibacy is superior to marriage.⁶² These steps in the institutionalization of asceticism drove authors to formulate or more clearly articulate virginity definitions that suited their needs, and the idea that virginity is anatomical fit their needs well. Greek-speaking theologians soon added further momentum: in the 420s and 430s, thinkers who emphasized the union between Christ’s human and divine natures began writing sermons that celebrate the wonder of Christ emerging from Mary’s closed womb.⁶³ Although most controversies involving Mary’s virginal conceiving had not prompted Christians to develop claims about a hymen,⁶⁴ virginity “took flesh” alongside Christ in these later debates over asceticism and Christology. Several Christian leaders thus latched onto the concept of a hymen, a concept

posed to the lustful violence are still chaste and holy, regardless of what someone else has done to their body. Many interpreters have seen this discussion as an affirmation that virgins who have been sexually assaulted are still virgins, but it is more likely that Augustine thinks assaulted virgins are still chaste, yet no longer virgins. For him, female virginity entails the bodily good of hymenal integrity as well as the higher good of moral chastity. This creates a tension in his reasoning that he never resolves: moral chastity matters more than bodily integrity, yet virginal status relies on both. Further discussion appears in Lillis 2022.

⁶¹ On the institutional history of virginity in Italian and North African contexts, see Metz 1954, Koch 1907, Elliott 2011, chapters 1–2, Hunter 2016 and literature included in Laughton 2010 and Shuve 2016.

⁶² Consult Hunter 2007.

⁶³ Lillis 2022.

⁶⁴ A possible exception is the corpus of Ephrem the Syrian, whose fourth-century Syriac works include some rare references to a sealed womb for Mary within a wider, richer range of images and claims. Hymenal claims about Mary are extremely rare in the first four centuries CE and extremely common beginning in the fifth century.

that was probably circulating in Rome before its deployment in Christian discourse, and other late ancient groups embraced either a similar concept or other anatomical and physiological ones that made virginity a perceptible condition of the vagina.

According to this late ancient way of understanding virginity, female sex organs can reveal or disprove sexual purity. Evidence for sexual purity is built into the female body but is not built into the male body. In this thinking, the vagina exists in two states, virginal and non-virginal, defined in relation to penetration by a penis. Men mechanistically alter women's bodies by permanently changing the state of their genitals through a kind of injury. There had been preexisting tendencies to view the loss of female virginity as a mechanistic process enacted by men (often as the transformation of a pure, untouched virgin into a polluted *or* licitly "corrupted" woman) as well as earlier medical theories that buttressed social norms by making penile-vaginal intercourse central for female health.⁶⁵ But the rise of perceptible virginity made new formulas possible, combining forensic opportunities and medical knowledge in new ways and lending yet more authority to androcentric, violent conceptualizations of virginity loss.

The Christian writers discussed above take ambivalent stances toward the medical authority of female midwives. On the one hand, they cast doubt on midwives' competence and trustworthiness concerning virginity verification: the authors' various claims include that few midwives have sufficient training to detect virginity, that some take bribes, and that some cause injury maliciously or by accident as they perform examinations. Ambrose pits other medical practitioners' expertise against theirs, saying that knowledgeable physicians and past generations of doctors have had doubts about the method; he does not explain whether these authorities doubt the wisdom of relying on midwives' opinions or question the basis of the tests altogether. The latter might well be an accurate representation, given a physician's rejection of the idea of a hymen that we saw above and given the absence in other surviving medical literature of techniques or features that would allow experts to verify sexual virginity through visual or tactile examination. Patristic writers' objections aim to limit midwives' authority for the sake of specific agendas – to discourage celibate cohabitation or to prevent the medical violation of a particular virgin's modesty.

On the other hand, these writers invest in midwives' authority and in novel ideas about virginity that establish a new area of authoritative expertise for mid-

⁶⁵ Ancient Mediterranean sources routinely contain language about purity and corruption in discourse about virginity; many examples reflect a mechanistic understanding in which penetration changes a woman's general bodily state from purity to defilement, or in which men actively destroy and women passively lose virginity. Some texts of the Hippocratic Corpus consider intercourse and reproduction crucial for female health; for instance, *Diseases of Young Girls* describes an illness that is cured by becoming sexually active and pregnant. A famous alternative view about the healthfulness of sexual abstinence is advanced in Soranus, *Gynecology* 1.30–32.

wives.⁶⁶ After discrediting midwives' abilities to verify virginity and declaring inspections inadequate for assessing the full range of sexual corruption, Cyprian still instructs Pomponius to have midwives conduct inspections. Chrysostom agrees that examinations provide insufficient information about a woman's sexual history and virtue, but he does not question the idea that past vaginal penetration is medically perceptible; rather, he assumes this is true. Augustine expects his Latin-speaking audience to find the practice of genital inspection familiar, and multiple passages in his works convey his belief that virgins have something like a hymen (with an assumption that others agree). Only Ambrose directly discourages the practice of testing virginity by genital examination, and even he is committed to the notion that virginity is a perceptible anatomical condition. Each author limits midwives' authority while also investing in it – by describing virginity as concrete and perceptible, by assuming that sufficiently expert midwives can perceive it, or by enlisting midwives to perform actual inspections. Church leaders helped shape a new role for midwives in the monitoring of virginal status.⁶⁷

Patristic writers' ambivalence demonstrates a tension that arose in late ancient Christian discourse about virginity. The rise of medically perceptible virginity was both useful and problematic in their discourses. It brought a new intensity to pre-existing dichotomies and created moments of theological and pastoral crisis for writers like Ambrose and Augustine.

Early Christian reflection on virginity, both before and during the rise of anatomical conceptualizations, emphasized personal holiness, purity of the mind, and undivided devotion to God. Late ancient writers insisted that these spiritual, moral, and practical aspects of virginity were its true essence, while social and bodily aspects – such as being unmarried or unpenetrated or possessing a general purity in one's body, as different writers construed it – were secondary (but often necessary) aspects that mirrored virginity of the soul.⁶⁸ With the increasing signif-

⁶⁶ Virgins themselves may have contributed to this expansion of expertise for midwives. While some of the patristic writers imply that women find it humiliating or traumatic to undergo a vaginal examination, some also have either heard or anticipated arguments from virgins that the availability of testing makes celibate cohabitation permissible.

⁶⁷ Legal sources show an expansion (at the least, a shift) in midwives' areas of perceived expertise between antiquity and later periods, though not in a simple, linear trajectory. On the one hand, we might contrast the narrow focus on pregnancy and biological legitimacy in ancient legal sources like Paul's *Opinions* 2.24.7–9 and *Digest of Justinian* 25.4.1 (Ulpian) with the late medieval roles discussed by Ackerknecht 1976 and Murray 1990. On the other hand, Monica Green charts a decline – perhaps even an absence – of professional status for midwives during the early middle ages in Europe (Green 2005, especially 12–17, and Green 2008, especially 31–36). For an overview of the personnel available to women and the absence of evidence for medieval European midwifery before the thirteenth or fourteenth century, see Park 2018. Compare occasional references by Muslim jurists to midwives and other women who serve as legal witnesses concerning sexual matters: Giladi 2015, 120–132; Benkheira 2017. While ancient sources suggest that assessing virginal status was a new addition to midwives' range of tasks during late antiquity, the question of when and where this form of expertise persisted or reappeared deserves more investigation.

⁶⁸ Scholars of antiquity often use dichotomies in which virginity is defined in either a social

icance of virginity for ecclesial life and for theological boundary-drawing among Christians, the idea that virgins have perceptibly virginal vaginas became advantageous. It allowed church leaders like Pomponius to form verdicts on individual Christians' sexual status. It supported arguments about Mary's perpetual virginity and the superiority of celibacy to marriage, or created a vaginal barrier that only a Christ with truly divinized flesh could cross. It served as a compelling image for requiring the seclusion of consecrated virgins, and as a reassuring symbol of the doctrinally pure Church, a bride of Christ with safely sealed boundaries. Fluid and blurry divisions could be rendered more certain and concrete.

These advantages, however, came with costs. One can only speculate on some costs, like the effects on women of a heightened interest in their genital characteristics or the likelihood of unfounded condemnation for virgins whose genital state seemed ambiguous. Other consequences arise in the surviving texts. Locating virginity in genital anatomy went against the grain of Christian authors' thought about the nature of virginity; the privileging of bodily evidence put conceptual pressure on their configurations. The resulting tensions are clearest in Ambrose's objections against virginity testing and in Augustine's discussions of sexual violence. Each writer believes that virginity entails a hymen-like form of genital intactness, and he utilizes this notion in his reasoning about Mary, the superiority of celibacy, and the lives of consecrated virgins – but each also wishes to prioritize spiritual and moral chastity above the state of the body. Ambrose's strident condemnation of inspections and Augustine's inability to reconcile conflicting models for virginity in cases of sexual assault indicate that medically perceptible virginity was simultaneously an aid and a threat to Christians' reasoning.⁶⁹

Late ancient Christian leaders played an important role in popularizing the belief that virginity is an anatomical state and is medically verifiable. At the same time, their specific agendas and their larger conceptual configurations led them to cast suspicion upon the use and ultimate usefulness of virginity inspections by midwives, even as they shaped social and ecclesial environments that generated a demand for the practice. Their conflicted efforts to anchor virginity in both the genitals of the female virgin and in the virgin's soul, will, behaviors, or entire being involved pointed critiques of – and poignant reflections on – the privileging of bodily condition while giving medically perceptible virginity an increasingly secure place in the social imagination of the late ancient world.

or a bodily way, or in either a physical or a spiritual way. Such dichotomies distort the complex relationship between the categories and obscure significant variations in the ways ancient thinkers considered virginity to be "bodily."

⁶⁹ Ambrose's conflicting agendas are described in the earlier sections of this essay. On the unresolved tension in Augustine's thinking about virginity, see note 60 and Lillis 2022.

Bibliography

Primary sources

- Achilles Tatius. *Leucippe and Clitophon*. In *Achille Tatiüs d'Alexandrie. Le roman de Leucippé et Clitophon*. Edited and translated by Jean-Philippe Garnaud. Paris: Les Belles Lettres, 1991.
- Aelius Donatus. *Commentary on Terence*. In *Aeli Donati quod fertur Commentum Terenti*. Edited by Paul Wessner. 3 volumes. Leipzig: Teubner, 1902–1908.
- Aetius of Amida. *Tetrabiblion/Gynecology*. In *Gynaekologie des Aëtios*. Edited by Skevos Zervos. Leipzig: Fock, 1901.
- Aetius of Amida. *Tetrabiblion/Gynecology*. In *Aetios of Amida: The Gynaecology and Obstetrics of the VIth Century, A.D.* Edited and translated by James V. Ricci. Philadelphia: Blakiston, 1950.
- Ambrose of Milan. *Letters* 56 and 57. In *Corpus Scriptorum Ecclesiasticorum Latinorum* 82.2. Edited by Michaela Zelzer. Vienna: Hölder-Pichler-Tempsky, 1990.
- Ambrose of Milan. In *Letters*. Fathers of the Church 26. Translated by Sister Mary Melchior Beyenka. New York: Fathers of the Church, 1954.
- Ambrose of Milan. *Education of a Virgin and Exhortation to Virginity*. In *Sancti Ambrosii Episcopi Mediolanensis Opera* 14.2. Edited and translated by Franco Gori. Milan: Biblioteca Ambrosiana; Rome: Città Nuova Editrice, 1989.
- Ambrose of Milan. *Letters (outside the collection)*. In *Corpus Scriptorum Ecclesiasticorum Latinorum* 82.3. Edited by Michaela Zelzer. Vienna: Hölder-Pichler-Tempsky, 1982.
- Ambrose of Milan. In *Ambrose of Milan: Political Letters and Speeches*. Translated Texts for Historians 43. Translated by J. H. W. G. Liebeschuetz with Carole Hill. Liverpool: Liverpool University Press, 2005.
- Augustine of Hippo. *City of God*. In *Corpus Christianorum, Series Latina* 47 and 48. Edited by Bernhard Dombart and Alfons Kalb. Turnhout: Brepols, 1955.
- Cyprian of Carthage. *Letter* 4. In *Corpus Christianorum, Series Latina* 3B. Edited by G. F. Diercks. Turnhout: Brepols, 1994.
- “Hippocrates’ *Peri Partheniôn* (‘Diseases of Young Girls’): Text and Translation.” Edited and translated by Rebecca Flemming and Ann Ellis Hanson. *Early Science and Medicine* 3,3 (1998): 241–252.
- Isidore of Seville. *Etymologies*. In *Isidore de Séville. Étymologies, livre IX: Les langues et les groupes sociaux*. Edited and translated by Marc Reydellet. Paris: Les Belles Lettres, 1984.
- Isidore of Seville. *Etymologies*. In *The Etymologies of Isidore of Seville*. Edited and translated by Stephen A. Barney, W. J. Lewis, J. A. Beach, and Oliver Berghof, with the collaboration of Muriel Hall. Cambridge and New York: Cambridge University Press, 2006.
- J Composition*. In *The Apocryphal Gospels: Texts and Translations*. Edited by Bart D. Ehrman and Zlatko Pleše. Oxford: Oxford University Press, 2011.
- John Chrysostom. *The Necessity of Guarding Virginity*. In *Saint Jean Chrysostome. Les cohabitations suspectes; Comment observer la virginité*. Edited and translated by Jean Du-mortier. Paris: Les Belles Lettres, 1955.
- John Chrysostom. In *Jerome, Chrysostom, and Friends: Essays and Translations*. Translated by Elizabeth A. Clark. New York: Edwin Mellen, 1979.
- Mary and Joseph and Verse Homily on Mary and Joseph*. In *Mary and Joseph, and Other Dialogue Poems on Mary*. Edited and translated by Sebastian P. Brock. Texts from Christian Late Antiquity 8. Piscataway, NJ: Gorgias Press, 2011.

- . In *Bride of Light: Hymns on Mary from the Syriac Churches*. Translated by Sebastian Brock. Mōrān 'Ethō Series 6. Kottayam: St. Ephrem Ecumenical Research Institute, 1994.
- Maximus the Confessor. *The Life of the Virgin*. In *The Life of the Virgin: Maximus the Confessor*. Translated by Stephen J. Shoemaker. New Haven: Yale University Press, 2012.
- Metrodora. *Female Diseases*. In *Metrodora. Medicina e cosmesi ad uso delle donne: la antica Sapienza femminile e la cura di sé*. Edited by Giorgio del Guerra. Milan: Associazione culturale Mimesis, 1994.
- Metrodora. *Female Diseases*. In "Metrodora's Work 'On the Feminine Diseases of the Womb' according to the Greek Codex 75.3 of the Laurentian Library." Edited by Aristotle P. Kousis. *Praktika tēs Akadēmias Athēnōn* 20 (1945): 46–68.
- Protevangelium of James*. In *La forme la plus ancienne du Protévangile de Jacques; recherches sur le papyrus Bodmer 5 avec une édition critique du texte grec et une traduction annotée*. Edited and translated by Émile de Strycker. Brussels: Société des Bollandistes, 1961.
- Pseudo-Galen. *Remedies Easily Prepared*. In *Claudii Galeni Opera Omnia* 14. Edited by C. G. Kühn. Hildesheim: Olms, 1965.
- Servius. *Commentary on Vergil's Aeneid*. In *Servianorum in Vergilii carmina commentariorum. Editio Harvardiana*. Edited by Edward K. Rand et al. 3 volumes. Oxford: Oxford University Press, 1946–1965.
- Soranus of Ephesus. *Gynecology*. In *Soranos d'Ephèse: Maladies des femmes*. Edited by Paul Burguière, Danielle Gourevitch, and Yves Malinas. 4 volumes. Paris: Les Belles Lettres, 1988–2000.
- Soranus of Ephesus. *Gynecology*. In *Soranus: Gynecology*. Translated by Owsei Temkin. 2nd ed. Baltimore: Johns Hopkins University Press, 1991.
- Stephanus of Athens. *Hippocratic Aphorisms*. In *Corpus Medicorum Graecorum* XI 1.3.3. Edited and translated by Leendert G. Westerink. Berlin: Akademie Verlag, 1992.
- Tertullian of Carthage. *Flesh of Christ*. In *Tertullien. La chair du Christ: Introduction, texte critique, traduction et commentaire*. Edited and translated by Jean-Pierre Mahé. 2 volumes. Sources Chrétiennes 216–217. Paris: Éditions du Cerf, 1975.
- Tertullian of Carthage. *Veiling of Virgins*. In *Tertullien. Le voile de vierges (De virginibus vealandis)*. Edited by Eva Schulz-Flügel and translated by Paul Mattei. Sources Chrétiennes 424. Paris: Éditions du Cerf, 1997.

Secondary sources

- Ackerknecht, Erwin H. 1976. "Midwives as Experts in Court." *Bulletin of the New York Academy of Medicine* 52,10: 1224–1228.
- Adams, James N. 1982. *The Latin Sexual Vocabulary*. Baltimore: Johns Hopkins University Press.
- Aubineau, Michel, ed. 1966. "Les sources du traité." In *Gregoire de Nysse. Traité de la virginité*, 127–142. Sources Chrétiennes 119. Paris: Éditions du Cerf.
- Bacalexi, Dina. 2005. "Responsabilités féminines: sages – femmes, nourrices et mères chez quelques médecins de l'Antiquité et de la Renaissance." *Gesnerus* 62: 5–32.
- Benkheira, Hocine. 2017. "Impotent Husbands, Eunuchs and Flawed Women in Early Islamic Law." In *Disability in Antiquity*. Edited by Christian Laes. London: Routledge. Pages 421–433.

- Brown, Peter. 1985. "The Notion of Virginity in the Early Church." In *Christian Spirituality: Origins to the Twelfth Century*. Edited by Bernard McGinn and John Meyendorff in collaboration with Jean Leclercq. New York: Crossroad. Pages 427–443.
- Brown, Peter. 1988. *The Body and Society: Men, Women and Sexual Renunciation in Early Christianity*. New York: Columbia University Press.
- Caldwell, Lauren E. 2015. *Roman Girlhood and the Fashioning of Femininity*. Cambridge: Cambridge University Press.
- Camelot, Thomas. 1952. "Les traités 'de virginité' au IV^e siècle." In *Mystique et continence. Travaux scientifiques du VII^e congrès international d'Avon*. Bruges: Desclée De Brouwer. Pages 273–292.
- Cameron, Averil. 1989. "Virginity as Metaphor." In Eadem, *History as Text: The Writing of Ancient History*. Chapel Hill: University of North Carolina Press. Pages 184–205.
- Cassin, Elena. 1981. "Le Proche-Orient ancien: virginité et stratégie du sexe." In *La Première fois, ou, Le roman de la virginité perdue à travers les siècles et les continents*. Edited by Jean-Pierre Bardet. Paris: Ramsay. Pages 239–258.
- Castelli, Elizabeth A. 1986. "Virginity and Its Meaning for Women's Sexuality in Early Christianity." *Journal of Feminist Studies in Religion* 2,1: 61–88.
- Chaniotis, Angelos. 2016. "The Age of a parthenos: A New Epitaph from Aphrodisias." In *Vir doctus Anatolicus: Studies in Memory of Sençer Sahin*. Edited by Burak Takmer, Ebru N. Akdoğan Arca, and Nura Gökalp Özdil. Istanbul: Kibalcı Yayınevi. Pages 246–251.
- Cinthio, Hanna. 2015. "'You Go Home and Tell That to My Dad!' Conflicting Claims and Understandings on Hymen and Virginity." *Sexuality & Culture* 19: 172–189.
- Clark, Elizabeth A. 1977. "John Chrysostom and the *Subintroductae*." *Church History* 46,2: 171–185.
- Clark, Elizabeth A. 1986. *Ascetic Piety and Women's Faith: Essays on Late Ancient Christianity*. Lewiston, NY: Mellen.
- Clark, Gillian. 1993. *Women in Late Antiquity: Pagan and Christian Life-styles*. Oxford: Clarendon Press; New York: Oxford University Press.
- Clark, Gillian. 2011. *Body and Gender, Soul and Reason in Late Antiquity*. Farnham, Surrey: Ashgate.
- Contiades-Tsitsoni, Eleni. 1990. *Hymenaios und Epithalamion: Das Hochzeitslied in der frühgriechischen Lyrik*. Stuttgart: Teubner.
- Cooper, Jerrold S. 2002. "Virginity in Ancient Mesopotamia." In *Sex and Gender in the Ancient Near East: Proceedings of the 47th Rencontre Assyriologique Internationale, Helsinki, July 2–6, 2001*. Edited by Simo Parpola and Robert M. Whiting. Helsinki: Neo-Assyrian Text Corpus Project. Pages 91–112.
- De Wet, Chris L. 2015. *Preaching Bondage: John Chrysostom and the Discourse of Slavery in Early Christianity*. Oakland: University of California Press.
- De Wet, Chris L. 2018. *The Unbound God: Slavery and the Formation of Early Christian Thought*. London: Routledge.
- Dean-Jones, Lesley. 1994. *Women's Bodies in Classical Greek Science*. Oxford: Clarendon.
- Dmitriev, Sviatoslav. 2017. "Early Byzantine Public Physicians: A Short-Lived Social Phenomenon with a Long History." *Byzantion* 87: 207–231.
- Dumortier, Jean. 1949. "La Date des deux traités de Saint Jean Chrysostome aux moines et aux vierges." *Mélanges de Science Religieuse* 6: 247–252.
- Dunning, Benjamin H. 2011. *Specters of Paul: Sexual Difference in Early Christian Thought*. Philadelphia: University of Pennsylvania Press.

- Eijk, Ton H. C. van. 1972. "Marriage and Virginité, Death and Immortality." In *Epektasis. Mélanges patristiques offerts au Cardinal Jean Danielou*. Edited by Jacques Fontaine and Charles Kannengiesser. Paris: Beauchesne. Pages 209–236.
- Elliott, Dyan. 2011. *The Bride of Christ Goes to Hell: Metaphor and Embodiment in the Lives of Pious Women, 200–1500*. Philadelphia: University of Pennsylvania Press.
- Elm, Susanna. 1994. *"Virgins of God": The Making of Asceticism in Late Antiquity*. Oxford: Clarendon Press.
- Emmenegger, Gregor. 2014. *Wie die Jungfrau zum Kind kam: zum Einfluss antiker medizinischer und naturphilosophischer Theorien auf die Entwicklung des christlichen Dogmas*. Fribourg: Academic Press.
- Flemming, Rebecca. 2000. *Medicine and the Making of Roman Women: Gender, Nature, and Authority from Celsus to Galen*. Oxford: Oxford University Press.
- Foskett, Mary F. 2002. *A Virgin Conceived: Mary and Classical Representations of Virginité*. Bloomington: Indiana University Press.
- Frymer-Kensky, Tikva. 1998. "Virginité in the Bible." In *Gender and Law in the Hebrew Bible and the Ancient Near East*. Edited by Victor H. Matthews, Bernard M. Levison, and Tikva Frymer-Kensky. Sheffield: Sheffield Academic Press. Pages 79–96.
- Giladi, Avner. 2015. *Muslim Midwives: The Craft of Birthing in the Premodern Middle East*. Cambridge: Cambridge University Press.
- Goldhill, Simon. 1995. *Foucault's Virginité: Ancient Erotic Fiction and the History of Sexuality*. Cambridge: Cambridge University Press.
- Green, Monica. 2005. "Bodies, Gender, Health, Disease: Recent Work on Medieval Women's Medicine." In *Sexuality and Culture in Medieval and Renaissance Europe*. Edited by Philip M. Soergel. New York: AMS Press. Pages 1–46.
- Green, Monica. 2008. *Making Women's Medicine Masculine: The Rise of Male Authority in Pre-Modern Gynecology*. Oxford: Oxford University Press.
- Grimal, Pierre. 1981. "L'antiquité grecque et latine." In *La Première fois ou le roman de la virginité perdue à travers les siècles et les continents*. Edited by Jean-Pierre Bardet, Elena Cassin, Vilma Chiara, and Amphay Doré. Paris: Ramsay. Pages 203–238.
- Grubbs, Judith Evans. 1995. *Law and Family in Late Antiquity: The Emperor Constantine's Marriage Legislation*. Oxford: Clarendon Press; New York: Oxford University Press.
- Hague, Rebecca H. 1983. "Ancient Greek Wedding Songs: The Tradition of Praise." *Journal of Folklore Research* 20,2/3: 131–143.
- Hanson, Ann Ellis, and David Armstrong. 1986. "The Virgin's Voice and Neck: Aeschylus, Agamemnon 245 and Other Texts." *Bulletin of the Institute of Classical Studies* 33: 97–100.
- Hanson, Ann Ellis. 1990. "The Medical Writers' Woman." In *Before Sexuality: The Construction of Erotic Experience in the Ancient Greek World*. Edited by David M. Halperin, John J. Winkler, and Froma I. Zeitlin. Princeton: Princeton University Press. Pages 314–320.
- Hanson, Ann Ellis. 1992a. "The Logic of the Gynecological Prescriptions." In *Tratados hipocráticos: estudios acerca de su contenido, forma e influencia: actas del VIIe Colloque international hippocratique, Madrid, 24–29 de septiembre de 1990*. Edited by Juan Antonio López Férez. Madrid: Universidad Nacional de Educación a Distancia. Pages 235–250.
- Hanson, Ann Ellis. 1992b. "Conception, Gestation and the Origin of Female Nature in the *Corpus Hippocraticum*." *Helios* 19: 31–71.
- Hanson, Ann Ellis. 1994. "A Division of Labor: Roles for Men in Greek and Roman Births." *Thamyris* 1,2: 157–202.

- Hanson, Ann Ellis. 2007. "The Hippocratic *Parthenos* in Sickness and Health." In *Virginity Revisited: Configurations of the Unpossessed Body*. Edited by Bonnie MacLachlan and Judith Fletcher. Toronto: University of Toronto Press. Pages 40–65.
- Harper, Kyle. 2011. *Slavery in the Late Roman World, AD 275–425*. Cambridge: Cambridge University Press.
- Hauptman, Judith. 2005. *Rereading the Mishnah: A New Approach to Ancient Jewish Texts*. Texts and Studies in Ancient Judaism 109. Tübingen: Mohr Siebeck.
- Henderson, Jeffrey. 1975. *The Maculate Muse: Obscene Language in Attic Comedy*. Oxford: Oxford University Press.
- Hersch, Karen. 2010. *The Roman Wedding: Ritual and Meaning in Antiquity*. Cambridge: Cambridge University Press.
- Hunter, David G. 2007. *Marriage, Celibacy and Heresy in Ancient Christianity: The Jovinianist Controversy*. Oxford: Oxford University Press.
- Hunter, David G. 2016. "Sacred Space, Virginal Consecration and Symbolic Power: A Liturgical Innovation and Its Implications in Late Ancient Christianity." In *Spaces in Late Antiquity: Cultural, Theological and Archaeological Perspectives*. Edited by Juliette Day, Raimo Hakola, Maijastina Kahlos, and Ulla Tervahauta. London: Routledge. Pages 89–105.
- Jackson, Ralph. 1990. "Roman Doctors and Their Instruments: Recent Research into Ancient Practice." *Journal of Roman Archaeology* 3: 5–27.
- Jaeger, Hasso. 1965. *La preuve judiciaire d'après la tradition rabbinique et patristique*. Brussels: Éditions de la Librairie Encyclopédique, S. P. R. L.
- King, Helen. 1998. *Hippocrates' Woman: Reading the Female Body in Ancient Greece*. London: Routledge.
- Koch, Hugo. 1907. *Virgines Christi: die Gelübde der gottgeweihten Jungfrauen in den ersten drei Jahrhunderten*. Leipzig: J. C. Hinrichs.
- Kosak, Jennifer. 2016. "Interpretations of the Healer's Touch in the Hippocratic Corpus." In *Homo Patiens: Approaches to the Patient in the Ancient World*. Edited by Georgia Petridou and Chiara Thumiger. Studies in Ancient Medicine 45. Leiden: Brill. Pages 247–264.
- Laes, Christian. 2013. "Male Virgins in Latin Inscriptions from Rome." In *Religious Participation in Ancient and Medieval Societies: Rituals, Interaction and Identity*. Edited by Sari Katajala-Peltomaa and Ville Vuolanto. Rome: Institutum Romanum Finlandiae. Pages 105–119.
- Langer, Ruth. 1995. "The *Birkat Betulim*: A Study of the Jewish Celebration of Bridal Virginity." *Proceedings of the American Academy for Jewish Research* 61: 53–94.
- Langlands, Rebecca. 2006. *Sexual Morality in Ancient Rome*. Cambridge: Cambridge University Press.
- Laughton, Ariel Bybee. 2010. "Virginity Discourse and Ascetic Politics in the Writings of Ambrose of Milan." Ph.D. diss., Duke University.
- Leyerle, Blake. 2001. *Theatrical Shows and Ascetic Lives: John Chrysostom's Attack on Spiritual Marriage*. Berkeley: University of California Press.
- Lillis, Julia Kelto. 2016. "Paradox in *Partu*: Verifying Virginity in the *Protevangelium of James*." *Journal of Early Christian Studies* 24,1: 1–28.
- Lillis, Julia Kelto. 2017. "Who Opens the Womb? Fertility and Virginity in Patristic Texts." *Studia Patristica* 81: 187–202.
- Lillis, Julia Kelto. 2020. "No Hymen Required: Reconstructing Origen's View on Mary's Virginity." *Church History* 89,2: 1–19.

- Lillis, Julia Kelto. 2021. "Virginity in Healthcare." In *Palgrave Encyclopedia of the Health Humanities*. Edited by Paul Crawford and Paul Kadetz. Digital edition. Cham: Palgrave MacMillan. https://doi.org/10.1007/978-3-030-26825-1_141-1.
- Lillis, Julia Kelto. 2022. *Virgin Territory: Configuring Female Virginity in Early Christianity*. Oakland: University of California Press.
- Lloyd, Geoffrey E. R. 1983. *Science, Folklore and Ideology: Studies in the Life Sciences in Ancient Greece*. Cambridge: Cambridge University Press.
- Marks, Susan. 2013. *First Came Marriage: The Rabbinic Appropriation of Early Jewish Wedding Ritual*. Piscataway, NJ: Gorgias Press.
- Martin, Dale B. and Patricia Cox Miller, eds. 2005. *The Cultural Turn in Late Ancient Studies: Gender, Asceticism, and Historiography*. Durham, NC: Duke University Press.
- Metz, René. 1954. *La consécration des vierges dans l'Église romaine: étude d'histoire de la liturgie*. Paris: Presses Universitaires de France.
- Morales, Helen. 2004. *Vision and Narrative in Achilles Tatius' Leucippe and Clitophon*. Cambridge: Cambridge University Press.
- Murray, Jacqueline. 1990. "On the Origins and Role of 'Wise Women' in Causes for Annulment on the Grounds of Male Impotence." *Journal of Medieval History* 16,3: 235–249.
- Musgrove, Caroline. 2017. "Debating Virginity in the Late Alexandrian School of Medicine." *Studia Patristica* 81: 203–216.
- Neureiter, Livia. 2006. "John Chrysostom's Treatises on 'Spiritual Marriage.'" *Studia Patristica* 41: 457–462.
- Nutton, Vivian. 1977. "Archiatry and the Medical Profession in Antiquity." *Papers of the British School at Rome* 45: 191–226.
- Panayotakis, Stelios. 2000. "The Knot and the Hymen: A Reconsideration of *nodus virginitatis* (Hist. Apoll. 1)." *Mnemosyne* 53: 599–608.
- Park, Katharine. 2018. "Managing Childbirth and Fertility in Medieval Europe." In *Reproduction: Antiquity to the Present*. Edited by Nick Hopwood, Rebecca Flemming, and Lauren Kassell. Cambridge: University of Cambridge Press. Pages 153–166.
- Parker, Holt N. 2004. "Why Were the Vestals Virgins? Or the Chastity of Women and the Safety of the Roman State." *American Journal of Philology* 125,4: 563–601.
- Pillai, M. 2008. "Genital Findings in Prepubertal Girls: What Can Be Concluded from an Examination?" *Journal of Pediatric and Adolescent Gynecology* 21,4: 177–185.
- Rosenberg, Michael. 2018. *Signs of Virginity: Testing Virgins and Making Men in Late Antiquity*. Oxford: Oxford University Press.
- Rousselle, Aline. 1988. *Porneia: On Desire and the Body in Antiquity*. Translated by Felicia Pheasant. Oxford: Basil Blackwell.
- Satlow, Michael L. 1995. *Tasting the Dish: Rabbinic Rhetorics of Sexuality*. Brown Judaic Studies 303. Atlanta: Scholars Press.
- Shaw, Teresa M. 1998. *The Burden of the Flesh: Fasting and Sexuality in Early Christianity*. Minneapolis: Fortress Press.
- Shuve, Karl. 2016. *The Song of Songs and the Fashioning of Identity in Early Latin Christianity*. Oxford: Oxford University Press.
- Sissa, Giulia. 1984. "Une virginité sans hymen: le corps féminin en Grèce ancienne." *Annales (ESC)* 39: 1119–1139.
- Sissa, Giulia. 1987. *Le corps virginal: la virginité féminine en Grèce ancienne*. Paris: Librairie philosophique J. Vrin.
- Sissa, Giulia. 1990a. *Greek Virginity*. Translated by Arthur Goldhammer. Cambridge, MA: Harvard University Press.

- Sissa, Giulia. 1990b. "Maidenhood without Maidenhead: The Female Body in Ancient Greece." In *Before Sexuality: The Construction of Erotic Experience in the Ancient Greek World*. Edited by David M. Halperin, John J. Winkler, and Froma I. Zeitlin. Princeton: Princeton University Press. Pages 339–364.
- Sissa, Giulia. 2008. *Sex and Sensuality in the Ancient World*. Translated by George Staunton. New Haven: Yale University Press.
- Sissa, Giulia. 2013. "The Hymen Is a Problem, Still. Virginity, Imperforation, and Contraception, from Greece to Rome." *Eugesta* 3: 67–123.
- Tigay, Jeffrey H. 1993. "Examination of the Accused Bride in 4Q159: Forensic Medicine at Qumran." *Journal of Ancient Near Eastern Society* 22: 129–134.
- Uhalde, Kevin. 2013. *Expectations of Justice in the Age of Augustine*. Philadelphia: University of Pennsylvania Press.
- Undheim, Sissel. 2017. *Borderline Virginites*. London: Routledge.
- Valler, Shulamit. 1999. *Women and Womanhood in the Talmud*. Translated by Betty Sigler Rozen. Brown Judaic Studies 321. Atlanta: Scholars Press.
- Voicu, Sever J. 2011. "Ways to Survival for the Infancy Apocrypha." In *Infancy Apocrypha: Stories and Identities*. Edited by Claire Clivaz, Andreas Dettwiler, Luc Devillers, and Enrico Norelli, with the assistance of Benjamin Bertho. *Wissenschaftliche Untersuchungen zum neuen Testament* 281. Tübingen: Mohr Siebeck. Pages 401–417.
- Walker, Abbe Lind. 2020. *Bride of Hades to Bride of Christ: The Virgin and the Otherworldly Bridegroom in Ancient Greece and Early Christian Rome*. London: Routledge.
- Watson, Patricia. 1983. "Puella and Virgo." *Glotta* 61,1–2: 119–143.
- Wegner, Judith Romney. 1988. *Chattel or Person? The Status of Women in the Mishnah*. Oxford: Oxford University Press.
- Wenham, Gordon J. 1972. "Betûlâh: 'A Girl of Marriageable Age'." *Vetus Testamentum* 22,3: 326–348.
- Wimbush, Vincent L. and Richard Valentasis, editors. 1995. *Asceticism*. Oxford: Oxford University Press.
- World Health Organization. 2018. "Eliminating Virginity Testing: An Interagency Statement." Geneva: World Health Organization. Accessed 24 August 2020. Online: <https://www.who.int/publications/i/item/WHO-RHR-18.15>.
- Young, Robin Darling, and Monica J. Blanchard, eds. 2011. *To Train His Soul in Books: Syriac Asceticism in Early Christianity*. Washington, D. C.: Catholic University of America Press.

Contributors

MONIKA AMSLER (PhD University of Zurich 2018) is currently a postdoctoral researcher at the University of Bern, Switzerland. Her first book *The Talmud and Late Antique Book Culture* has been published with Cambridge University Press in 2023. She has edited the volume *Knowledge Construction in Late Antiquity* (De Gruyter, 2023). Other than education and book production, her research interests cover medicine, magic, and religion, that is, ancient world making more broadly.

SIAM BHAYRO, PhD (2000), University College London, is Associate Professor (i. e. Reader) in Semitic Languages and Jewish Studies at the Institute of Arab and Islamic Studies, University of Exeter. His research interests include Semitic languages, medical history in the Christian and Islamic Orient, Hebrew and Aramaic magic, and the reception history of the Bible.

CARMEN CABALLERO-NAVAS (PhD 2000, Koret Jewish Studies Publications Program Award) is Senior Lecturer of Hebrew and Jewish Studies at the University of Granada, Spain. She studied and researched at the Hebrew University (Jerusalem) and at the Wellcome Trust Centre for the History of Medicine, UCL (London). Her research interests include medieval Hebrew texts on women's health(care) and the roles of women therein; medicine among medieval Jews of southern Europe; Jewish debates on sexual difference and concepts of the female body; medieval Jewish magic. Her publications include *The Book of Women's Love and the Jewish Medieval Medical Literature on Women: Sefer ahavat nashim* (2004), three other monographs, numerous book chapters and articles in specialized journals, and the collective volume (co-edited) *Late Medieval Jewish Identities. Iberia and Beyond* (2010).

IRENE CALÀ (PhD, Bologna 2012) is currently a research associate in the project "Griechische Erstedition der Libri medicinales, Bücher 10 und 14, des Aëtios von Amida" (PI: Mathias Witt, Ludwig-Maximilians-Universität München). Previously, she had worked at CNRS UMR 8167 (Paris) within the project "Florien-tal" (PI: Robert Hawley), and as a visiting research fellow at Humboldt Universität zu Berlin collaborating on the project "The Transfer of Medical Episteme in the 'Encyclopaedic' Compilations of Late Antiquity" (SFB 980, PIs: Philip van der Eijk and Markham J. Geller). She has published several articles on medicine in

Late Antiquity, especially on Aetius of Amida, and on the Syriac Galen Palimpsest. Her research interests combine ancient medicine, Greek and Latin paleography, Byzantine culture, reception and transmission of ancient medical works in the Renaissance.

RICARDA GÄBEL received her PhD from the Humboldt University in Berlin in 2018. Her dissertation (published in 2022 with De Gruyter as *Aetius of Amida on Diseases of the Brain*) offers the first modern translation and commentary of parts of the sixth book of the *Libri Medicinales* of the late antique medical compiler Aetius of Amida. From 2017–2020, she worked as a research fellow at the CRC/SFB 980 “Episteme in Bewegung” (Freie Universität Berlin) in the project “The Transfer of Medical Episteme in the ‘Encyclopaedic’ Compilations of Late Antiquity” (PIs: P. van der Eijk, M. J. Geller).

TAL ILAN (born 1956) received her PhD with a work on Jewish women in Greco-Roman Palestine from the Hebrew University in Jerusalem in 1991. From 2003 until her retirement in 2022 she was Professor for Jewish Studies at the Freie Universität Berlin. She has published widely in the field of Jewish history in antiquity and rabbinic literature. Since 2008 she is the editor of the *Feminist Commentary on the Mishnah and the Babylonian Talmud* (FCBT) published by Mohr Siebeck.

SAMUEL S. KOTTEK (born 1931, Strasbourg) received his MD from the Université de Strasbourg in 1959 specializing in pediatric medicine. After moving to Jerusalem he studied under Prof. Joshua Leibowitz and eventually became the Harry Friedenwald Chair of History of Medicine at the Hebrew University’s Hadasah Medical School in 1976 (emeritus since 2000). His main research interests are medicine in ancient Hebrew or Jewish sources and the history of pediatrics (17th-18th c.). He is the editor of the journal *Korot* and has published about 200 papers. Among his authored and (co-)edited books are: *Medicine and Hygiene in the Works of Flavius Josephus* (Leiden 1994); *Health and Disease in the Holy Land* (Lewiston, 1996); *From Athens to Jerusalem: Medicine in Hellenized Jewish Lore and in Early Christian Literature* (Rotterdam, 2000); *Maimonides and his Practice of Medicine* (Haifa, 2013); *Isaac Israeli: The Philosopher Physician*, (Jerusalem, 2015); *Ma’ase Tuviya, Venice 1708, Tuviya on Medicine & Science*, (Jerusalem 2021).

LENNART LEHMHAUS is lecturer/assistant professor at the University of Tübingen after having held positions at Martin-Luther University (Halle), Freie Universität Berlin (SFB 980 “Episteme in Motion”), The Katz Center for Judaic Studies (U. of Pennsylvania), and Harvard University. His research and teaching comprise (late) ancient Jewish cultures and literatures; history of premodern (Jewish) medicine, sciences and knowledge; and trajectories of traditions, motifs and customs into

contemporary Jewish and Israeli culture. He has published on *Seder Eliyahu* and other “late midrashic” texts in their early Islamicate contexts. From his current comparative research will emerge the *Sourcebooks of Medical Knowledge in Talmudic Literature* (Mohr Siebeck, 2024–28) and *Talmudic Bodies of Knowledge – Jewish Discourse on Health, Illness, and Medicine in Late Antiquity* (in preparation). Besides peer-reviewed articles, he has edited *Collecting Recipes. Byzantine and Jewish Pharmacology in Dialogue* (De Gruyter, 2017, with M. Martelli), and *Defining Jewish Medicine – Transfers of Medical Knowledge in Jewish Cultures and Traditions*. (Harrassowitz, 2021).

JULIA KELTO LILLIS is Assistant Professor of Early Church History at Union Theological Seminary in the City of New York. She was previously Visiting Assistant Professor of Religion at Luther College (Iowa) and Postdoctoral Fellow and Lecturer in New Testament and Early Christianity at the University of Virginia. Her primary research interests are ancient constructions of social difference, especially gender and sexuality, and their significance in early Christian literature. Previous publications include articles and essays on women’s virginity, including “Paradox in Partu: Verifying Virginity in the Protevangelium of James” (*Journal of Early Christian Studies* 2016), which was awarded the *American Society of Church History’s Jane Dempsey Douglass prize*. Other research interests include the formation of the biblical canon, gender fluidity in apocryphal and patristic texts, ways of viewing bodies and bodily abilities in antiquity, and the concepts of purity and pollution. Her recent monograph is titled *Virgin Territory: Configuring Female Virginity in Early Christianity* (CUP, 2022).

TIRZAH MEACHAM is an associate professor in Department of Near and Middle Eastern Civilizations at University of Toronto. She received her doctorate in Talmudic and Rabbinic Literature from The Hebrew University with a critical edition and study of Mishnah Niddah. She published *Sefer haBagrut leRav Shmuel ben Hofni Gaon veSefer haShanim leRav Yehuda ben Yosef Rosh haSeder* (with Miriam Frenkel). She co-edited (with Harry Fox) *Introducing Tosefta: Textual, Intratextual and Intertextual Studies* (1999), and a *Jewish Law Association Studies* 28 (2019) special volume on *The Jewish Family*; (with Harry Fox and Daniel Maoz) *From Something to Nothing: Jewish Mysticism in Contemporary Canadian Jewish Studies* (2019). She is the guest editor of *Studies in Judaism, Humanities and the Social Sciences* 4.1 (2022). Currently she is working on a Feminist Commentary to *Babylonian Talmud Niddah*, Hebrew petitionary prayers (*teḥinot*) from Italy, and other topics in history of medicine and Jewish commentary literature along with a monograph on Original Sin.

TANJA POMMERENING holds degrees in Egyptology, pharmacy and history of sciences. She was a full professor of Egyptology at the University of Mainz (2010–

2020), and spokesperson of the research training group DFG-GRK 1876 “Early Concepts of Humans and Nature. Universal, Specific, Interchanged” (2013–2020). Since 2020 she is a full professor for the history of pharmacy and medicine at the Philipps University in Marburg and director of the institute of pharmacy, of medicine, and of the anatomical collection. In addition to the overarching questions of universals, cultural specificities and knowledge transfer, her research focuses on ancient Egyptian medicine and science, and the history of knowledge. Her latest publications include *Classification from Antiquity to Modern Times: Sources, Methods, and Theories from an Interdisciplinary Perspective* (co-edited with Walter Bisang, Berlin: de Gruyter, 2017), and *Finding, Inheriting or Borrowing? The Construction and Transfer of Knowledge in Antiquity and the Middle Ages* (co-edited with Jochen Althoff and Dominik Berrens, Bielefeld: transcript, 2019).

SHANA STRAUCH SCHICK is a lecturer in Talmud at Shalem College, Jerusalem and a Charney fellow of the Center for Israel Studies at Yeshiva University (NYC). She holds a PhD in Talmudic Literature from Bernard Revel Graduate School and has held Postdoctoral Fellowships in Jewish Culture in the Ancient World at Haifa, Bar Ilan, and Tel Aviv Universities and The Center for Interdisciplinary Research of the Cairo Geniza at Haifa University. Her first book, *Intention in Talmudic Jurisprudence: Between Thought and Deed* (Brill, 2021), examines the development of intention as a concept in Talmudic jurisprudence and the cultural and historical forces that contributed to the increasing emphasis on intention in the thought of the ancient rabbis. Her forthcoming monograph explores the contrasting views on the legal and communal status of women in the rabbinic societies of Babylonia versus the Land of Israel as presented in halakhic and aggadic texts. Her articles have appeared in several publications and journals, including *Zion*, *AJS*, *JSQ*, and *Nashim*.

MARZIA SOARDI is an Italian researcher based in Palermo (M. A. Classics, 2004). After research at the University of Cambridge, she earned her PhD (Greek Philology) from the University of Palermo (2007). From 2011 to 2014 she worked as a postdoctoral fellow funded by MIUR (Italy) within the project “Medicine of the Mind, Philosophy of the Body” (TOPOI, HU and FU Berlin; PI: P. van der Eijk). Currently, she has been research assistant at the University of Palermo (Department of Classics) and teaches Latin and Greek literature in high school. Her main research interests include ancient Greek reflections on gynaecology and embryology, Aristotelian biology, gender theories, ancient medicine. Besides her first monograph *Le rappresentazioni del femminile in Aristotele* (Rome: Sciascia ed, 2015), her latest publications include “A cold place, a hot place: female matrix in the Aristotelian theory of generation” In E. Cuto Ferreira, L. Verderame *The Matrix of the World: Cultural constructions of the uterus in pre-modern societies* (Cambridge

Scholarly Press, 2018, 98–108), and “Genetic Malformations and Anomalies within the Aristotelian Theory of Reproduction”, *Medicina nei secoli* 29,1 (2017): 151–164.

ULRIKE STEINERT received her PhD in Assyriology at the University of Göttingen in 2007. From 2013–2018, she worked for the project “BabMed–Babylonian Medicine” at Freie Universität Berlin. Since 2018, she is a postdoctoral researcher in the Research Training Group “Early Concepts of Humans and Nature” (GRK 1876) at Johannes Gutenberg-Universität Mainz. Her current work focuses on an edition of Mesopotamian medical texts concerned with women’s health. Ulrike’s main research interests and publications center on Mesopotamian medicine, gender and body concepts as well as metaphor research. She is author of a study on the body, self and identity in Mesopotamian texts, entitled *Aspekte des Menschseins im Alten Mesopotamien. Eine Studie zu Person und Identität im 2. und 1. Jh. v. Chr.* (Brill, 2012), and editor of *Assyrian and Babylonian Scholarly Text Catalogues* (De Gruyter 2018) and *Systems of Classification in Premodern Medical Cultures* (Routledge 2020).

Index Locorum

Ancient Mesopotamian Sources

AMT

- 19/2+63/2 ii 14'-16' 288 n. 208
- AMT 20/1+ (obv.!) i 34'-35' 288
- AMT 29/1 (K. 8777) i 3 287
- AMT 31/2: 2-8 // 268
- AMT 35/3: 5 289 n. 210
- AMT 43/1+ iii 14'-19' 253 n. 64
- AMT 54/3 ii 1-7 // 267 n. 124
- AMT 93/1: 10'-12' // 286

AO

- AO 6473 (= TCL 6, 49) obv. 8-14 274 n. 153
- AO 6473 (= TCL 6, 49) rev. 11-12 248, 274
- AO 11276: 10-15 244-245
- AO 17615 (Labat 1960, 172-173 Scurlock 2006, No. 187c) 288 n. 209

Atramhasis Epic

- I 189-230 250 (n. 57)
- I 249-254 252-253 (n. 62)

BAM

- BAM 28 rev. 3-11 // 267 (n. 124)
- BAM 29 rev. 18-32 // 267 n. 124
- BAM 30 rev. 38'-40' // 287
- BAM 99 obv. 19-21 // 253
- BAM 99 obv. 27-29 // 253
- BAM 99 rev. 42-51 253 n. 64
- BAM 100 rev. 2'-5' // 253
- BAM 112 ii 17'-19' 253
- BAM 151: 12' 288 n. 207
- BAM 152 iii 8-12 // 253
- BAM 159 i 9-11 253
- BAM 161 vi 1-2 // 253
- BAM 182 obv. 6' 253
- BAM 183: 4 280 n. 175
- BAM 183: 6-7 285
- BAM 183: 14-15 286

- BAM 199: 1-14 //BAM 471 ii 14'-18' 288 n. 209
- BAM 207 obv. 1'-4' 265
- BAM 235 obv. 4-5 253
- BAM 237 ii 1'-6' // 250 n. 56
- BAM 240 rev. 39'-42' 241
- BAM 307: 23 283
- BAM 311 rev. 93' // 287
- BAM 315 i 34-35 // 288
- BAM 319 obv. 1-7 // 265
- BAM 320 obv. 7'-9' // 265
- BAM 385 i 3'-11' (Scurlock 2006, No. 187b) 288 n. 209
- BAM 386 (iv) i¹ 1'-6' // 250 n. 56
- BAM 396 iv 3-5 253
- BAM 476 obv. 10'-13' 280
- BAM 482 ii 1 288 n. 207
- BAM 482 i 47'-48' // 288
- BAM 503 i 12' (Scurlock 2006, No. 159) 287 n. 205
- BAM 503 i 28'-29' // 287
- BAM 508 iv 1-2 // 287
- BAM 510 i 31'-32' // 278
- BAM 510 ii 35-iii 5 // 268 n. 126
- BAM 513 i 21'-22' // 278
- BAM 513 iii 1'-6' // 268 n. 126
- BAM 514 i 38'-40' // 278
- BAM 524 iii 10' // 268 n. 126
- BAM 533 rev. 76-89 // 267 n. 124
- BAM 543 iii 65'-iv 2 // 267 n. 124

BM

- BM 38624+ obv. ii 28'-30' 242
- BM 40152 iii 17 249
- BM 42272: 70, 76-77 // 286 n. 197, 288, 293
- BM 42313+ rev. 12-14 240
- BM 45736 obv. i 13' 240

- BM 54650: 1–6 // 265
- BM 68033 rev. 9'–10' // 265
- BM 73802+ obv. 6' 242
- BM 79061 obv. 9–12 248
- BRM*
- 4, 32: 7–8 289 n. 210
- CT*
- CT 23, 2–3 (= K. 2473): 1–8 // 268 n. 125
- CT 23, 15–22+ (= iv 18) 287
- CT 51, 199: 1–4 // 287
- CTN*
- 4, No. 72 i 3'–9' 279 n. 174, 290 n. 213
- Gudea Cylinder A* xiii 12–15 272 n. 143
- Gudea Statue B* iii 12–iv 6 272 n. 146
- JRL*
- 1074: 13–15 //(Geller 2005, No. 35) 253
- K. (British Museum)*
- K. 263+10934 obv. 1–5 239
- K. 2492: 8'–10' // 286
- K. 3399+ obv. iii 3–14 252 n. 62
- K. 3628+ rev. 13'–15' // 285 n. 195
- K. 3628+ obv. 13–14 286 (n. 197)
- K. 3628+ obv. 21–23 286
- K. 6901+ iii 61'–64' // 285
- KAR*
- 300 rev. 6 275 n. 156
- 423 i 11, 14–15 263–264
- Lamaštu*
- II 1, 4–27 283–284 (n. 190)
- II 34–60 269 (n. 130)
- LKA*
- 144 rev. 23–28 // 265
- LKU*
- 32 left edge 285
- SpTU*
- 1, No. 39: 6'–7' 254 n. 69
- 1, No. 39: 7'–8' 254 n. 69
- 1, No. 44: 69–74 // 267 n. 124
- 1, No. 50: 19 289 n. 210
- 1, No. 59: 11'–12', 14' 242–243
- 4, No. 129 vi (i') 11'–27' // 250 n. 56
- 4, No. 129 i 23' 250 n. 58
- 4, No. 129 i 28' 250 n. 56
- 4, No. 153 obv. 1–4 239
- 4, No. 153 obv. 7–9 240
- STT*
- 280 obv. i 22–25 265
- 280 i 26–27 265 n. 119
- 1, 57: 11–13 289 n. 210
- 281 iv 1–9, 15 284
- 286 ii 4–8 289 n. 210
- 286 9–13 289 n. 210
- TCL*
- 6, 34 i 6 289 n. 210
- TDP (Diagnostic Handbook)*
- Tablet 14: 109 266 n. 121
- Tablet 28: 4–6, 7–10 289
- Tablet 36: 94–96, 98 242, 243 n. 34, 249 n. 55
- Tablet 36: 100–102 248
- Tablet 220: 26–27 410 n. 55
- Ur₅-ra = *hubullu* Tablet 19: 301–307 281

Ancient Egyptian Sources

- pBerlin 3027 (Yamazaki 2003)* 136, 152
- pBerlin 3028 (Grapow, von Deines, and Westendorf 1954–73, vol. 5)* 136, 153
- pBerlin P13602* 138
- Bln 163 156
- Bln 192 154
- Bln 193 155
- pBM EA 10243, r.2,1* 157
- pBM EA 65275* 158
- pBrooklyn 47.218.2 (Guermeur 2015–16 [parts unpublished])* 137 f.
- x+V,22– x+VI,2 163
- x+ VI,8– x+ VI,11 163 f.
- pBrooklyn 47.218.47 r. (unpublished, editor: Quack)* 137 f.
- pBrooklyn 47.218.75+86 v. (unpublished, editor: Unger)* 137
- pBrooklyn 47.218.84 (Meeks 2006)*
- x+3,10 f. 146, 152
- x+11,1–4, excerpt 149
- pCarlsberg VIII.v. (Grapow, von Deines, and Westendorf 1954–73, vol. 5)* 136

- Clb 4 147, 153
- Clb 5 147
- pCarlsberg 231* (unpublished, editor: Jacob) 136
- pCherster Beatty I* (Gardiner 1931) 152
- r.4,2 146
- pCherster Beatty VI* (Grapow, von Deines, and Westendorf 1954–73, vol. 5) (P.BM EA 10686) 136
- pD’Orbiney 18*, 4–8 152
- pEdwin Smith*, v. (Grapow, von Deines, and Westendorf 1954–73, vol. 5) 136
- Sm 20,13–21,3 (= v. 3.13–4.3) 154, 159, 162f.
- Sm 20.15 (=v.3.15) 141
- Sm 21,3 147
- pEbers* (Grapow, von Deines, and Westendorf 1954–73, vol. 5) 136, 163
- Eb 99 135
- Eb 104 156
- Eb 109 156
- Eb 111 156
- Eb 453 143
- Eb 460 146
- Eb 499–500 156
- Eb 500 160
- Eb 705 163
- Eb 783 147, 154
- Eb 784 163
- Eb 793 147
- Eb 795 147, 164
- Eb 798 147
- Eb 789–94 143, 164
- Eb 800 158
- Eb 801–7 148
- Eb 802 147
- Eb 805 147
- Eb 806 147
- Eb 812 163
- Eb 813 163
- Eb 813c 147
- Eb 813–30 147
- Eb 817 140, 148
- Eb 818 140
- Eb 833 159, 162f.
- Eb 836 159
- Eb 854 135
- pGM VII*, 260–71 (Scarborough in Betz 1992) (= P. London BM 121.) 164
- pHearst* (Grapow, von Deines, and Westendorf 1954–73, vol. 5)
- H 111 156
- H 156 146
- pIFAO H 48 r.* (Herbin 2011) 137
- pIFAO H 48 v.* [x+18–19], 7–8 140
- pJumilhac XII* (Vandier 1961) 156
- 24f. 154f., 160
- pKahun med.* (UC 32057) (Collier and Quirke 2004) 136, 138
- Kah 1 161, 163
- Kah 2 162
- Kah 3 162
- Kah 4 146
- Kah 5 162
- Kah 6 162, 164
- Kah 7 162f.
- Kah 8 160, 162, 164
- Kah 9 146
- Kah 10 162
- Kah 11 162
- Kah 16 161f.
- Kah 17 143
- Kah 21 154
- Kah 22 154
- Kah 26 158
- Kah 27 159
- Kah 28 153
- Kah 29 159
- Kah 31 159
- pLeiden I 348* (Borghouts 1971) 136
- nos. 28–34 152
- pLondon* (P.BM EA 10059) (Leitz 1999)
- 136, 138
- L 25–30 158
- L 27–29 157
- L 29 147
- L 30 147
- L 33 157, 164
- L 35 157, 159
- L 35 (10,14–11,2) 159
- pLondon 10070/pLeiden* (Betz 1992)
- (=pLudg. Bat. J 383) 137
- pLouvre E 11268* 158
- pLouvre E 27206* 158
- pLouvre E 32847* (Bardinet 2018) 136

- v24,1–v24,4 151
- pLouvre N.3079, III,3* (P.BM 10208) 143
- pLouvre N 1105* 158
- pmag Harris 501* (= *pBM EA 10042*), III,8, IX,5 (Leitz 1999) 139
- r.9,5 140 f.,
- r.3,8–3,9 141, 158
- r.4,8–9 155
- pNeferubenef* (*Frgm. Montpellier*), 574 155
- pParis Louvre 3092, Tb 170* 155
- pRamesseum* (*Grapow, von Deines, and Westendorf 1954–73, vol. 5*) (P.BM EA 10756) 136
- pRhamesseum 4* (*Grapow, von Deines, and Westendorf 1954–73, vol. 5*) (P.BM EA 10757) 136, 146
- Ram IV C 2–3 154
- Ram IV C 28–30 158
- pSalt 825* 149
- pVatican 38600/1+2, 158* 155
- pVindob. D. 6257* (Reymond 1976) 137
- Chapel of Sekhemankhptah, Saqqara* 143
- Coffin Texts*
 - CT spell 76 152
 - CT spell 148 149
 - CT II 3h–4a 152
 - CT VI 176 157
- Temple texts*
- Edfou VII, 115,16–116,4* 147
- Text on the columns in the temple of Esna* 134, 160
- Text from the Hibis temple of Amun-Re (Kharga Oasis)* 159
- Opet, Karnak* 147, 155
- Pyramid Texts* (Allen 1984; 2013)
 - PT 52, § 1248b/c 152
 - PT 219, § 193a–b (Wenis) 155
 - PT 325, § 532a 152
 - PT 366 § 632b–c) 149, 154
 - PT 412, § 725a–b (Neith) 155
 - PT 552 § 736 150
 - PT 563, § 1416c–1417b (152
 - PT 577, § 740 152
 - PT 685, § 2065a/b 146 f.,
 - PT 1064 [P/V/E 44] (Pepy I) 155
- Litany of the Sun* (Siglum E) 138
- Stela of Seti I* (Nauri) 150
- Tales of the Prince Setne Khaemwas* 160
- Tombs*
- Eje, Amarna* (*Great Hymn To Aten*) 151
- Kaiemankh* (G 4561), Giza 143, 145
- Neferhotep* (TT50), *first song of the harpers* (Hari 1985) 150
- Qereri* (Q15), *Akhmim* 142
- Seneb, Giza* 142, 144
- Ti, Saqqara* 142

Indian and Zoroastrian Sources

- Bundahišn*
 - 14:28 338
 - 15:4 333
- Rig Veda, mandala 4, hymn 18* (Griffith 1896) 438
 - Zādspram* 334, (n. 61)

Bible

- Genesis*
 - 1:28 213
 - 2:7 218
 - 3:16 52
 - 4:1 325
 - 6:1 218 (n. 98)
- 6:2 218
 - 17:12 400
 - 18:11 334 n. 164
 - 25:21–24 53 n. 276
 - 29:31 39 n. 195
 - 30:1–2 8

– 31:35 334 n. 164

– 34:1 219

– 35:17 63

– 37:36 29 n. 135

– 38:28 63

– 38 350, 358

– 40:2 29 n. 135

Exodus

– 1:15–17 53 n. 274

– 1:15–21 63, 65

– 13:2 440, 441

– 21:7–11 382

– 22:15–16 21 n. 89

Leviticus

– 12:1–2 42, 214, 325, 327

– 12 55 n. 282, 352

– 13 347

– 14 347

– 15 41 n. 205, 336

– 15:19 334

– 15:19–33 37 n. 184

– 18:19 37 ns. 183–184

– 20:18 11, 37 n. 183

Numbers

– 5:13 378

Deuteronomy

– 19:14 360

– 21:15 441

– 21:17 440, 441

– 22:5 30

– 22:13–21 21, 383, 465 n. 6, 467, 472

– 22:28–29 21 n. 89

– 23:2 26 n. 124, 29 n. 139

1 Samuel

– 1:10–13 8

– 1:12–17 409

– 1:20 360

– 8:15 29 n. 135

2 Kings

– 8:6 29 n. 135

– 19:3 52 n. 266

– 23:11 29 n. 135

Isaiah

– 37:3 52 n. 266, 53 n. 273

– 66:9 52 n. 266

Jeremiah

– 34:19 29 n. 135

– 52:25 29 n. 135

Ezekiel

– 18:5–6 37 n. 183

Hosea

– 13:13 52 n. 266, 53 n. 273

Psalms

– 22:10 51 n. 258

– 22:11 63

– 71:6 51 n. 258

– 116 352

– 116:6 352, 358

– 139 45

– 139:13 39 n. 195

Proverbs

– 23:10 359, 360

Job

– 3:10 8

– 10:9–11 45

– 38:8 35 n. 176

– 38:9 51 n. 258

Song of Songs

– 4:12–13 18 n. 73

– 8:8 384

– 16 18 n. 73

Kohelet

– 11:5 39 n. 195

Esther

– 1:10 29 n. 135

– 2:15 29 n. 135

Second Temple

1 Enoch 15:4 325, (n. 7)

2 Macc.

– 7:22–3 39 n. 195

– 7:27 57 n. 297

4 Maccabees 13:19–22 325, (n. 7)

Wisdom of Solomon 7: 1–2 325, (n. 7)

Testament of Job 1:5–6 219 (n. 102)

Dead Sea Scrolls

4Q271 3.10–15 468

4Q159 2–4.8–10 468

Targum of Job

– 2:9 219 (n. 102)

Josephus

– *Jewish Antiquities* 4.246–248 467 n. 14

– *Vita* 185 426

Philo

- *Questions and Answers on Genesis*, 3.47
47. (Gen. xvii. 10) 14 n. 44
- *Special Laws* 3.79–82 467 n. 14

Pseudo-Philo

- *Liber Antiquitatum Biblicarum*
8:7–8 219 (n. 102)

New Testament, Apocryphal Gospels, and Targum

Mark 5:27–34 34 n. 168

Hebrews 11:11 325, (n. 7)

1 Tim 2:15 51

Protevangelium of James

- 15:8 22 n. 100
- 19–20 468, 469 n. 20, 474

J Composition (Latin infancy gospel)

- 75 474 n. 42

- 77 474 n. 42

Targumim

- Neofiti Lev. 12:1 325

- Onkelos Lev. 12:1 325

- Pseudo-Jonathan Lev. 12:1 324

Rabbinic Sources

*Mishnah**Shabbat*

- 2:6 32 n. 157, 51 n. 257
- 6 30 n. 145
- 6:5 353 n. 22
- 8:4 372
- 12:6 54 n. 278
- 19:2 401
- 19:3 26 n. 122

Yevamot

- 1:1 357, 373, 380
- 4:2 47 n. 240, 370
- 4:10 360
- 5:4 371
- 8:2 27 n. 134, 29 n. 139
- 13:1 371
- 13:2 382

Ketubot

- 1–2 464, 472
- 1:5 21 n. 94
- 3:1–2 473 n. 35
- 5:5–9 29 n. 139

Nazir

- 1:1 373

Qiddushin

- 1:1 371

Avodah Zarah

- 2:1 60 n. 318, 65

Avot

- 5: 21 16 n. 57

Hullin

- 4:5 443

Bekhorot

- 8:1 440
- 8:2 441

Arakhin

- 1:4 436, 439

Ohalot

- 7:6 446

Mikwa'ot

- 8:4 11 n. 34

Niddah

- 1:1 335 (n. 67)
- 1:2 335 (n. 67)
- 1:4 58 n. 305
- 1:7–2:1; 11 n. 34
- 2:1 11 n. 34, 37, 38 n. 187, 325, 336
- 2:1–3 37, 38 n. 187
- 2:2 335 (n. 67)
- 3:1 353, 388
- 3:2 353, 354
- 3:3 354
- 3:4 353, 354, 355
- 3:5 52 n. 265

- 3:7 46 n. 231
- 5:2 335–336, 338, 340
- 5:4 326 (n. 18), 371, 382, 472 n. 35
- 5:5 381
- 5:6 381
- 5:7 385, 386
- 5:8 16, 21 n. 95, 381, 385
- 5:9 16 n. 57
- 6:1 16 n. 57, 16 n. 60
- 6:5–6 372
- 6:11 372, 378, 379, 381
- 6:12 385, 386
- 8:2 73 n. 379
- 8:3 335 (n. 67)
- 9:1 335 (n. 67)
- 9:2 54 n. 278, 335 (n. 67)
- 10:1 16 n. 61, 335 (n. 67), 383

Tosefta

Bikkurim

- 2:3 26

Shabbat

- 9:22 58 n. 305
- 12:13 54 n. 278
- 15:3 54 n. 278, 411
- 15:5 47 n. 242

Ketubbot

- 1:3 21 n. 95
- 1:4 21 n. 94
- 5:4–5 29 n. 139

Qiddushin

- 4:4 376

Avodah Zarah

- 3:3 53 n. 274, 65

Arakhin

- 1:4 439

Niddah

- 1:8–9 16 n. 61, 388
- 2:2 56 n. 290
- 2:2–7 29 n. 139
- 2:3 364
- 2:4 58 n. 305, 352, 353, 362
- 2:6 29 n. 139, 350, 351
- 2:7 359, 360
- 2:8 325–332
- 3:1 16 n. 61, 388

- 4:7 356
 - 4:8 356
 - 4:17 46 n. 232, 68 n. 354
 - 5:4 16 n. 61, 388
 - 5:14 388
 - 6:4 16 n. 59, 21 n. 95, 373, 385, 386
 - 6:5 379
 - 6:5–6 16 n. 60, 372, 374
 - 6:8 16 n. 61, 349, 385
 - 6:9 16 n. 61, 386
 - 6:12 386
 - 6:17 73 n. 379
 - 7:4 73 n. 379
 - 8:1–2 38 n. 186
- Zavim*
- 2:1 26 n. 122
- Para*
- 5:5 26 ns. 122–123

Yerushalmi/Palestinian Talmud

Berakhot

- 9:1 (12d) 44 n. 217
- 9:8, 14d 60 n. 314

Kilaim

- 8,4 31c 44 n. 217, 332

Shabbat

- 14:4, 14d 70 n. 366, 71, 429
- 18:3, 16c 54 n. 278

Pesahim

- 7:13, 35c 376
- 8:1, 35c 16 n. 60, 374, 375

Ḥagigah

- 2:1, 77b–c 49 n. 250

Yevamot

- 1:1, 2d 16 n. 60, 375
- 1:1, 2d–3a 372, 374, 375, 377
- 4, 5c–d 47 n. 242
- 4:2, 5c 370
- 8:2, 9b 27 n. 134, 29 n. 139
- 13:2, 13c 382

Ketubot

- 1:1, 25a 21 (ns. 93–94), 473 n. 36
- 1:3, 25b 22 n. 96
- 1:3, 25c 473 n. 36
- 5:6, 30a 29 n. 139
- 5:13, 30b 57 n. 299

Sotah

- 2:1, 17d 16 n. 60, 374, 375
- 4:4, 19c–d 29 n. 139

Qiddushin

- 1:7, 61a 16 n. 57, 403 (n. 18)
- 2:6, 62d 376

Sanhedrin

- 8:26 16 n. 59

Avodah Zarah

- 2:1, 40c 60 n. 318, 61 n. 319
- 2:2, 40d 70 bn. 366, 71
- 9:2, 40c 53 n. 274, 65 (n. 341)

Niddah

- 1:3, 49a 389
- 1:5, 49b 56 n. 290
- 2:1, 49d 325
- 2:4, 50a 37 n. 184
- 3:2, 50c 356 n. 34
- 3:4, 50d 353, 354, 356
- 3:4, 51a 369

*Babylonian Talmud/Bavli**Berakhot*

- 5b 331 (n. 45)
- 39b 403, 431, n. 36
- 54a 332 (n. 46)
- 57a 413 (n. 64)
- 60a 42 n. 210, 45, 332 (n. 46)
- 61a 11
- 62a 69 n. 359, 415 (n. 73)

Shabbat

- 31b 32 n. 157
- 53b 29 n. 140, 59 n. 310
- 54b 65 n. 339
- 63b 21 n. 93
- 65a 353 n. 22
- 66b 431, n. 36
- 75b 39 n. 191
- 80b 372
- 94b 30 n. 145
- 108a–111a 81
- 110a–b 34 n. 168
- 118b 11 n. 34
- 128b 65, 412
- 129b 54 n. 278, 411
- 134a 399, 400, 402, 405, 410, 411, 413, 415, 416, 431, n. 36

- 136b 26 n. 122
- 147b 54 n. 278
- 151b 54 n. 280

Eruvin

- 29b 431, n. 36
- 54b 22 n. 98, 60 n. 314
- 82a 383
- 100b 54 n. 280

Pesahim

- 55b 413 (n. 67)
- 112b 403 (n. 18)

Yoma

- 12b 431, n. 36
- 29b 22 n. 98
- 82a 216
- 84a 69 n. 359

Ta'anit

- 21a–b 403

Moed Qatan

- 18b 431, n. 36

Hagigah

- 14b–15a 22 n. 100

Yevamot

- 12b 16, 57 n. 297, 350, 379, 409
- 12b–13a 380
- 25b 431, n. 36
- 34b 22 n. 96, 57 n. 297, 358
- 37a 47 n. 240
- 42a 57 n. 297, 360, 361
- 42b 361
- 42a–b 29 n. 139
- 62a 390
- 63b 390
- 65b–66a 368, 370
- 76a 27 n. 134, 29 n. 139, 408
- 80b 47 n. 240
- 83a 27 n. 134
- 100b 57 n. 297, 350, 357, 358

Ketubbot

- 9b 21 n. 94
- 9b–10b 473
- 10a 22 n. 99
- 10a–b 19 n. 79, 22
- 10b 21 n. 94, 34 n. 165, 431, n. 36
- 12a 21 n. 94
- 36a–b 21 n. 95
- 39a 57 n. 297, 21 n. 95, 350, 357
- 39b 22 n. 97, 431, n. 36

- 50a 431, n. 36
- 59b–60b 29 n. 139
- 60a 29 n. 139, 57 n. 299
- 60b 56 n. 290
- 60b–61a 49, 57 n. 298
- 65a 57 n. 299

Nedarim

- 20a 49 n. 249
- 20a-b 363
- 35b 350, 357

Nazir

- 59a 30 n. 145

Sota

- 11b 54 n. 278, 60 n. 315
- 12b 60 n. 317
- 20b 47 n. 240
- 30a 60 n. 315

Gittin

- 38b 369
- 43b 369
- 67b–70b 429
- 67b 407 n. 41, 430
- 68b–70a 81
- 69a 430
- 69b 414
- 70a 430–31, 431, n. 36

Qiddushin

- 29b 16 n. 57
- 30b 332 (n. 49)
- 31b 403, 431
- 41a 16 n. 60, 390
- 82a 403

Bava Qamma

- 79b–80a 415 (n. 73)
- 92a 332 (n. 46)

Bava Metzi'a

- 84a 29 n. 137
- 87a 59 n. 310, 61 n. 319

Bava Batra

- 16b 119 n. 102
- 21a–b 403
- 73 a-b 54 n. 280
- 155b 16 n. 58

Sanhedrin

- 113a 352
- 73b 22 n. 100

Makkot

- 20b 30 n. 145

Avodah Zarah

- 5a 390
- 10b 444
- 26a 53 n. 274, 60 n. 318, 348, 414
- 26b 65
- 28b 407 n. 41, 431, n. 36

Menahot

- 68b 403, 431, n. 36
- 99b 46 n. 237

Hullin

- 47b 405
- 51a 414
- 74a 443
- 77a 408

Bekhorot

- 6b 56 n. 290
- 28b 446
- 47b 440–41

Arakhin

- 7a–b 436

Niddah

- 2a–3b 73 n. 377
- 3a 336 (n. 76)
- 4b 336
- 8b 47 n. 240
- 9a 56 n. 290
- 9b 388
- 10b 16 n. 61, 388
- 12a–b 38 n. 186
- 13a 326, (n. 17), 336, 339
- 13a–b 336 (n. 75)
- 13b 16 n. 60, 351, 390
- 14a 38 n. 187
- 17b 37 n. 184
- 20b 338–339
- 23b 356 n. 34
- 24b 47 n. 240, 54 n. 280
- 25b 356
- 26a 443
- 26b 366, 369
- 27a 47 n. 240, 54 n. 278, 367, 368, 369, 370
- 30b 68 n. 354, 316, 330–333
- 31a 43, 47 ns. 241–241, 48 n. 246, 52 (n. 265), 156, 214, 333–334
- 31b 41 n. 205, 352
- 41b 37 n. 184
- 45a 57 n. 297, 350, 357, 389. 473 n. 36

- 45b 16 n. 57
- 47a 373
- 47b 386
- 47a–b 385
- 47a–48b 16 n. 58
- 47b–48a 16 n. 59
- 48b 16 n. 61, 349, 388
- 52a 16 n. 59, 378, 387
- 52b 16 (n. 60), 372, 379, 386
- 57a 38 n. 186, 73 n. 377
- 57b 334–335, 339
- 64b 34
- 64b–65a 22 n. 100
- 65b–66a 38 n. 186
- 66a 34 n. 168, 339
- 71a 331 (n. 45)
- 70b–71a 332 (n. 46)

Minor Tractates

Kallah

- 18–19 336 (n. 75)

Soferim

- 21:9 22 n. 96

Avot de-Rabbi Nathan

- ARNa 1 22 n. 97
- ARNb 48 16 n. 57

Midrashim

Mekhilta de-Rabbi Ishmael

par. Be-Shalakh, 15:11 328 (n. 24)

Sifrei Deuteronomy (Devarim)

- 226 30 n. 145
- 235–237 467 n. 14

Sifrei Zuta (ed. Horowitz)

- Numb. 27:1 329 (n. 29)

Sifra

Sheratzim 11:1 55 n. 281

Tazria 1:8 55 n. 282

Genesis Rabbah (BeReshit Rabbah)

- 14:2 47 n. 242
- 17 328 (n. 24)

- 20:6 47 n. 242
- 30:8 29 n. 140, 59 n. 310
- 45:4 22 n. 96
- 53 61 n. 319
- 53:6 47 n. 240
- 53:9 59 n. 310
- 57:4 219
- 60:5 473 n. 36
- 63:3 53 n. 276
- 85:9 358

Exodus Rabbah (Shemot Rabbah)

- 1 60 n. 317
- 23:8 54 n. 278
- 30:9 60 n. 314

Leviticus Rabbah (Va-Yiqra Rabbah)

- 2:4 16 n. 58
- 5:1 54 n. 278
- 14 40 n. 198, 44 n. 217
- 14:2 327, 330
- 14:3 47 n. 240
- 14:4 36 n. 176, 330
- 14:5 328, 329 (n. 35)
- 14:6 328
- 14:7 328
- 14:8 327 (n. 22), 328, 331, 332
- 14:9 327 (n. 22), 329
- 15: 5 41 n. 205
- 15:9 40 n. 199
- 31:8 47 n. 240

Numbers Rabbah (BaMidbar Rabbah)

- 4 360
- 4:3 411
- 4:20 60 n. 314

Song of Songs Rabbah (Shir haShirim Rabbah)

- 7:3 439

Ecc. Rabbah (Qohelet Rabbah)

- 5:10 43 n. 214, 332 (n. 47, n. 52)
- 12:10 47 n. 240

Tanḥuma

- Tazria (Buber) 4 328 (n. 29)
- Tazria (Warsaw) 3 328 (n. 29)
- Vayigash 1:3 37 n. 182, 51 n. 257

Pes.Rabbati

- 7,9 60 n. 314

Midrash HaGadol (ed. Margulies)

- 311 329 (n. 29)

Midrash Aggadah (Buber)

- *VaYeshev* 85:9 358

Medieval and later Jewish Sources

Abraham Ibn Ezra

Biblical commentary

- on Gen. 17:17 340 (n. 90)
- on Lev. 12:2 340

David Qimḥi

Commentary on Hosea

- 14:8 197 (n. 21), 220

Maimonides (R. Moses b. Maimon)

Commentary to the Mishnah

- m.Bekhorot 8:2. 442
- m.Niddah 2:1 340 (n. 91)

Mishneh Torah

- *Isuri Biah* 5:17 335 (n. 69), 338 (n. 85), 340

Nahmanides (R. Moses b. Nahman)

Biblical Commentary

- Lev. 12:2 340

Hiddushei ha-Ramban (Talmudic Commentary)

- On b.Nid. 57a s. v. *ve-inyan* 340 (n. 92)

Ran (R. Nissim b. Reuven of Gerona)

Talmudic Commentary

- On b.Nid. 13 a, s. v. *nashim* 340 (n. 94)

Rashbam (R. Samuel b. Meir)

Biblical Commentary

- Lev. 12:2 341

Rashi (R. Shlomo Yitzhaki)

Biblical Commentary

- Lev. 12:2 341

Sēfer hatōledet

Ed. Barkai 1991 (incomplete)

- Question 10 203 (n. 40)

Ms. Wellcome

- ff. 25v–53r 199 (n. 32)

Ms. Vat. ebr. 360

- 12v19 204 (n. 42)
- 12v25 203 (n. 41)

Shulḥan Arukh (Y. Karo)

- *Oraḥ Ḥayyim* 330, 5 437

Terumat Hadeshen

- 246 335 (n. 69)

Tosafot: Talmudic Glosses

- b.Nid. 3a s. v. *margasha* 335 (n. 69)
- b.Nid. 13a s. v. *nashim* 341 (n. 93)
- b.Yeb. 12b s. v. *shalosh* 341 (n. 93)

Tosafot HaRid

- b.Nid. 57b s. v. *amar* 335 (n. 69)

Yalqut Shimoni

On Genesis

- *VaYeshev*, remez 145 358

On Numbers

- 710 329 (n. 29)
- 773 329 (n. 29)

On Chronicles

- *Divrei HaYamim*, remez 1074 358

Ancient Greek Text

Plato

Timaeus

- 91c1–91d6 (Bury 1929) 312–313 (n. 15)

Symposium

- 189e–193b 25 n. 117

Hippocratic Corpus/Corpus Hippocraticum

Coan Prenotions/Coacae praenotiones

- 537 (5.706 L.) 35 n. 171

- 541 (5.708 L.) 35 n. 171

Generation/Nature of the Child/De genitura/De natura pueri

- 4 (7.474–6 L.) 10 n. 27
- 12 (7.486 L.) 10 n. 27
- 22 (7.514 L.) 10 n. 27

- 30 (7.536 L.) 10 n. 27

Aphorisms/Aphorismi

- 5.33 (4.544 L.) 34 n. 167
- 5.39 (4.544 L.) 56 n. 289
- 5.42 (4.546 L.) 46 n. 234
- 5.51 (4.550 L.) 10 n. 29
- 5.59 (4.554 L.) 12
- 5.59 (4.554 L.) 153
- 5.62 (4.555–556 L.) 41 n. 202

On Diseases of Women/De morbis mulierum

- 1.1 (8.10,1–14,7) 309 n. 5
- 1.6 (8.30,6–11) 309 n. 5
- 1.17 (8.56–58 L.) 41 n. 203
- 1.17 (8.56–58 L.) 42 n. 208
- 1.20 (8.58–60 L.) 19 n. 77
- 1.24 (8.62–64 L.) 41 n. 204
- 1.25 (8.64–68 L.) 36 n. 176
- 1.34 (8.78–82 L.) 45 n. 224, 52 n. 268
- 1.35 (8.82–84 L.) 35 n. 174
- 1.62 (8.126 L.) 31 n. 149
- 1.70 (8.146–148 L.) 53 n. 275
- 1.72 (8.152 L.) 55 n. 283, 318 (n. 31)
- 1.76 (8.170 L.) 41 n. 202
- 2.123 (8.266 L.) 33 n. 161
- 2.154 (8.330 L.) 33 n. 161

On Diseases of Women 3/De morbis mulierum 3 (= On Sterility/De sterilibus)

- 3.214 (8.414–416 L.) 12 n. 37, 58 n. 301, 153 ns. 78–79
- 3.219 (8.422–424 L.) 153 n. 79
- 3.230 (8.438–444 L.) 153 n. 79
- 3.249 (8.462 L.) 53 n. 275

On the Nature of the Child/De natura pueri (see also On Generation/De genitura)

- 1/12 L. (7.486–488 L.) 42 n. 208
- 3/14 L. (7.492 L.) 36 n. 176
- 5/16 L. (7.496 L.) 41 n. 202
- 7/18 (7.498–506 L.) 45 n. 229
- 10/21 L. (7.510–512 L.) 12 n. 37
- 10/21 L. (7.510–512 L.) 56 n. 289
- 11/22 L. (7.514 L.) 48 n. 244
- 19/30 L. (7.530–532 L.) 51 n. 261
- 19/30 L. (7.532 L.) 52 n. 265
- 19/30 L. (7.534–538 L.) 47 n. 239
- 19/30 L. (7.538 L.) 52 n. 266
- 19/30 L. (7.538 L.) 52 n. 268

Epidemics/De morbis popularibus

- 6.1.4 (5.268 L.) 15 n. 50
- 6.3.14 (5.300 L.) 465 n. 4

On Diseases/De morbis

- 4 (7.542 L.) 42 n. 208

On Sterility/De sterilibus

- see above, *On Diseases of Women 3/De morbis mulierum 3*

On Generation/De genitura (see also On the nature of the child/De natura pueri)

- 4.1 (7.474 L.) 333
- 4.1–5.1 (7.474–477 L.) 337 n. 79
- 4.3 (7.476 L.) 34 n. 164
- 5 (7.476 L.) 10 n. 29, 42 n. 208
- 6–7 (7.478–480 L.) 333 (n. 56)

On Regimen/De diaeta

- 1.33 (6.510–512 L.) 15 ns. 53–54

On the Nature of Women/De natura muliebri

- 3 (7.316 L.) 313 n. 17
- 67 (7.402 L.) 19 n. 77
- 98 (7.414 L.) 41 n. 202

On Nutriment/De alimento

- 42 (9.112–114 L.) 45 n. 229

Places in Man/De locis in homine

- 47 (6.344–348 L.) 33 n. 161

On the Eight-month Infant/De octimestri partu

- 3.5 (7.456–458 L.) 44 n. 223

On Flesh/De carnibus

- 19 (8.608–614 L.) 47 n. 239

On Glands/De glandulis

- 16 (8.570–572 L.) 56 n. 289

On Superfetation/De superfetatione

- 7 (8.480 L.) 53 n. 275

On Excision of the Foetus/De foetus exsectione

- 1–2 (8.512–514 L.) 53 n. 275

Herophilus

On Midwifery (T 193.5–7 von Staden) 31 n. 150

Strabo

Geographica 17.2.5 (cf. 16.4.9) 13 n. 44

Diocles

frg. 22–24c (van der Eijk 2001, 36–45) 77 n. 402

- frg. 40–48d (van der Eijk 2001, 79–108) 77 n. 403
- frg. 168–175 (van der Eijk 2001, 307–320) 77 n. 404
- Aristotle*
- De anima*
- II 4, 415a29–30 308 (n. 1)
 - II 4, 415a 28 308 (n. 2)
- On the Generation of Animals/De generatione animalium*
- I, 2, 716a5–7 324, 333 (n. 54), 337 (n. 80)
 - I, 3, 716b32–33 (Barnes 1991a) 312 n. 11
 - I, 12, 719a30–35 (Barnes 1991a) 312 n. 12
 - I, 19, 726b31–727a30 35 n. 175
 - I, 20, 728 (Barnes 1991a) 311 n. 10
 - I, 20, 728a17–21 (Barnes 1991a) 309 (n. 4)
 - I, 20, 729a9–14 (Barnes 1991a) 310 (n. 7)
 - I, 20, 729a10–12 42 n. 207
 - I, 20, 729b 333 (n. 54)
 - II, 4, 737a 5 333 (n. 54)
 - II, 4, 738, 20–23 324, 337 (n. 80)
 - II, 4, 739b19–25; 40 n. 199
 - IV, 1, 764a12–20. 10 n. 27
 - IV, 4, 773a 466 n. 8
 - IV, 6, 775a28–b8 52 n. 268
 - IV, 6, 775b2–13 (Barnes 1991a) 314–315 (n. 19)
 - IV, 6, 775b21–24 (Barnes 1991a) 315 n. 20
 - IV, 8, 776a15–777a27 56 n. 289
 - IV, 8, 777a28–31 316 n. 26
 - VII, 8, 777a28–31 51 n. 261
 - VII, 9, 586b35 (Barnes 1991a) 315 n. 21
 - VII, 9, 587a1–5 (Barnes 1991a) 315 n. 21
- The History of Animals/Historia animalium*
- III 22, 523a23–26 312 n. 13
 - V 14, 544b26–545b30 15 n. 50
 - VII 1, 582a25–27 (Barnes 1991b) 313 n. 18
 - VII 2 339
 - VII 2, 582b7–9; 35 n. 171
 - VII 2, 582b11 41 n. 203
 - VII 3 583a14–19 (Barnes 1991b) 312 n. 13
 - VII 3, 583b2–12 45 n. 229
 - VII 3, 583b29 10 n. 29
- VII 4, 483a3–24; 47 n. 241
 - VII 4, 483b32–584a2 47 n. 239
 - VII 4, 584a2–12, 316 n. 23
 - VII 4, 584a10–17 45 n. 224
 - VII 4, 584a12–17 (Barnes 1991b) 316 (n. 25)
 - VII 4, 584a17–21 (Barnes 1991b) 316 (n. 24)
 - VII 4, 584a23–26 (Barnes 1991b) 316 n. 23
 - VII 4, 584a26–30 (Barnes 1991b) 317 (n. 29)
 - VII 9, 587a6–8 (Barnes 1991b) 51 n. 261, 316 n. 26
 - VII 10, 587a35 (Barnes 1991b) 317 n. 28
 - VII 10, 587b1–5 (Barnes 1991b) 318 (n. 32)
- Politics*
- VII, 16, 1335b6–13 (Barnes 1991c) 315–316 (n. 22)
 - VII, 16, 1335b12 f 48 n. 244
- Physica*
- 19b 409 (n. 52)
- Galen*
- Commentary on Hippocrates' Epidemics 6*
- 4.28 (17B.212 K. = 245,23–25 Wenkebach-Pfaff) 15 n. 50
- On Marasmus/De marcore*
- 9 (7.701 K.) 58 n. 303
- On the Therapeutic Method/Methodus medendi*
- 6.6 (10.474–475 K.) 58 n. 303
- On Prognosis/De praecognitione*
- 8.6 (14.643 K. = 112, 10–15 Nutton) 64 n. 332
- On My Own Books/De libris propriis*
- 9.13 (19.37 K. = 162, 1–7 Boudon-Millot) 15 n. 53
- Commentary on Hippocrates' Nature of Man*
- 3.7 (15.186 K. = 94,22–95,7 Mewaldt) 15 ns. 53–54
- On the Usefulness of the Parts of the Body/De usu partium*
- 2. (3.630 K.) 333 n. 57
 - 14.3 (4.146 K.) 10 n. 29
 - 14.6–7 (4.159–175 K.) 29 n. 137

On the Anatomy of the Uterus/De uteri dissectione

- 10.4 (902–903 K. = 50,24–52, 1 Nickel) 41 ns. 203–204

On the Formation of the Foetus/De foetuum formatione

- 3.9–10 (4.663–664 K. = 66, 19–32 Nickel) 45 n. 229
- 6.30 (4.700 K. = 104, 12–14 Nickel) 46 n. 236

On Semen/De semine

- 1.4.34–38 (4.526–527 K. = 78, 1–23 De Lacy) 45 n. 229
- 1.5.11 (4.530 K. = 80, 27–28 De Lacy) 43 n. 215
- 1.6.7 (4.535 K. = 86, 2–3 De Lacy) 44 n. 223
- 1.7 (4.535–539 K. = 86, 9–90, 6 De Lacy) 42 n. 208
- 1.11.1–2 (4.551–552 K. = 102, 17–21 De Lacy) 43 n. 215
- 2.1.12–14 (4.595–596 K. = 146, 14–20 De Lacy) 42 n. 208
- 2.2 (4.610–615 K. = 162, 1–166, 15 De Lacy) 333 n. 57)
- 2.4 (4.620–625 K. = 172, 1–178, 15 De Lacy) 333 n. 57)
- 2.4 (4.620–625 K. = 172, 1–178, 15 De Lacy) 42 n. 208

On the Natural Faculties/De naturalibus facultatibus

- 3.3 (2.148 K.) 51 n. 262
- 3.3 (2.151 K.) 51 n. 263
- 3.3 (2.151–152 K. = 358 Schubert) 53 n. 272
- 3.3 (2.152 K.) 51 n. 264

On Matters of Health/De sanitate tuenda

- 1.7.4–24 (6.32 K. = 16, 14–18, 18 Koch) 54 n. 278
- 1.7.17–20 (6.35–36 K. = 17, 24–18, 4 Koch) 56 n. 292
- 1.7.18–21 (6.36 K. = 17, 26–18, 4 Koch) 56 n. 289

On the Composition of Medications according to Kind/De compositione medicamentorum per genera

- 2.7 (13.507 K.) 422–423

*Soranus**Gynecology/Gynaeceia*

- 1.4.1–5 53 n. 272
- 1.16 19 n. 75, 466 n. 7, 470
- 1.17 19 n. 77
- 1.17–18 (64, 2–22 Ilberg) 56 n. 291
- 1.19 41 n. 202
- 1.20.1 (13, 18–25 Ilberg) 35 n. 172
- 1.30–32 480 n. 65
- 1.34–35 19 n. 77, 466 n. 8, 469 n. 20
- 1.36 (25.16–18 Ilberg) 41 n. 203
- 1.39 49 n. 250
- 1.56 (40, 8–41, 14 Ilberg) 47 n. 241
- 1.61–65 41 n. 202
- 2.1–2 53 n. 271
- 2.5.1 (53, 12–15) 65 n. 340
- 2.6 411
- 2.8 408
- 2.11 408
- 1.17 409
- 2.18 (65, 16–20 Ilberg) 56 n. 292
- 2.19–20 (66, 5–69, 5 Ilberg) 57 n. 293
- 2.28 54 n. 278
- 2.30–40 54 n. 278
- 2.34 54 n. 278
- 2.36–40 (79, 20–83, 23 Ilberg) 57 n. 294
- 2.46 (86, 7–11 Ilberg) 57 n. 295
- 2.57.2–3 93 (9–14 Ilberg) 60 n. 313
- 3.7 19 n. 77
- 3.9 19 n. 77
- 3.18 19 n. 77
- 4.1 53 n. 276
- 4.4 52 n. 266
- 4.7 19 n. 77
- 4.8 52 ns. 265–266
- 4.9 (147, 2 Ilberg) 25 n. 119, 53 n. 275
- 4.17 19 n. 77

*Dioscorides**On Medical Materials*, 2.70.6 (tr. Beck, 2005, p. 112) 58 n. 303*Plutarch**On the Education of Children*, 5 (Moralia 3C–E) 60 n. 312*Consolation to his Wife*, 5 (Morale 609E) 60 n. 312*Dialogue on Love* 24 465 n. 6

- Metrodora*
Female Diseases 33 467 n.10, 468
Achilles Tatius
Leucippe et Clitophon 2.28 467 n.12, 469 n.20
Heliodorus (of Emesa)
Aethiopica 467 n.12
Oribasius
Medical Collections/Collectiones medicae
 – 24.31 (41, 29–46, 17 Raeder) 470 (n.28)
 – 39.1–8 (138, 19–139, 30 Raeder) 60 n.313
 – 46.10 (219, 11–24 Raeder) 458 (n.33)
 – 47.15 (258, 28–259, 10 Raeder) 458, 459 n.34
 – 50.9 (60, 6–61, 10 Raeder) 459 (n.35)
 – lib. inc. 13.1 (100, 16 Raeder) 79 n.415
 – lib. inc. 14.1 (102, 11–12 Raeder) 41 n.204
 – lib. inc. 18 (106, 30 Raeder) 78 n.417
 – lib. inc. 20 (109, 25 Raeder) 78 n.417
 – lib. inc. 21 (112, 13 Raeder) 78 n.417
Synopsis to Eustathius
 – 5.5.3 (155, 22–23 Raeder) 57 n.296
Stephanus of Athens
Commentary on the Hippocratic Aphorisms
 – 5.63 (CMG XI 1.3.3:162–164) 471
Aetius
Medical Books/Libri medicinales
 – 16 78 n.418
 – 16. (152,13–153,10 Zervos) 454–455
 – 16.23 78 ns. 409 and 416
 – 16.51 466 n.8
 – 16.66–67 467 n.10
 – 16.79 78 n.416
 – 16.96 466 n.8
 – 16.103 78 n.416
 – 16.105 78 n.416
 – 16.106 78 n.416
Greek Manuscripts of Aetius, Libri Medicinales, Book XVI
 – Berol. gr. fol. 37 n.273 451
 – Berol. gr. fol. 38 n.274 451
 – Berol. gr. fol. 39 n.275 451
 – Berol. Phillipps 1534 451
 – Laur. Plut. 75.7 454
 – Vat. gr. 298 453 n.17
Paul of Aegina
Epitome of Medicine in Seven Books/Epitome medicae libri septem
 – 3.60–76 (p.274.19–296.17 Heiberg) 79 n.420
 – 3.66 78 n.409
 – 3.72 78 n.409
 – 3.76 78 n.409
 – 4.74 78 n.409
Alexander of Tralles
Therapeutics
 – 1.15 (Puschmann 1.539, 1–6) 57 n.298
Photius
 Bibliotheca, cod. 221 (150–151 Henry) 452–453 (ns. 16–17)
Pseudo-Galen
Remedies Easily Prepared
 – 26.12, 26.38 (CGOO 14:478, 485, 486) 466 n.10

Ancient Latin Texts

- Varro*
On agriculture/Res Rustica
 – 2.2.16 410 (n.57)
Celsus
On Medicine/De medicina
 – 4.1 466 n.9
 – 5.21.1B 58 n.303
 – 6.6.8B 58 n.303
 – 6.7.1B 58 n.303
 – 7.28 466 n.8
 – 7.29 53 n.275
Pliny
Natural History/Historia naturalis
 – 7.7 435

- 7.9 53 n. 275
- 7.15 40 n. 199
- 7.37 53 n. 276
- 7.47 53 n. 276
- 7.66 40 n. 199
- 8.166 413 (n. 67)
- 20.134 48 n. 245
- 20.135 58 n. 303
- 27 51 n. 258
- 28.20 277 n. 166
- 28.21 277
- 28.23 277
- 28.23 64 n. 331
- 28.70 67 n. 350
- 28.72–75 58 n. 303
- 28.81 64 n. 331
- 28.103 51 n. 258
- 30.123 48 n. 245
- Tacitus*
German Tribes/Germania, 20 60 n. 312
- Aulus Gellius*
Attic Nights/Noctes Atticae, 12.1 60 n. 312
- Columella*
On agriculture/De Re Rustica, 7.3 410 (n. 56)
- Servius*
Commentary on Vergil's Aeneid, 4.99 (Rand 3:286–287) 471
- Aelius Donatus*
Brothers 904 471 n. 30
Adelphoe 5.7.6 (Wessner 2:171–172) 471
- Marcellus*
On Drugs
– 9.110 58 n. 303
– 16.105 58 n. 303
- Caelius Aurelianus*
De morbis acutis et chronicis
– II 112 (113 Drabkin and Drabkin) 456
- Isidore of Seville*
Etymologiae 9.7.22 (Reydellet IX, 235; Barney et al, 211) 471
- Mucio*
Liber ad Soteris obstetrix, Ms. Laurentianus 73,1 77 n. 409
- Legal Texts*
Institutes of Justinian Tit. XXII 389
Digest of Justinian 25.4.1 (Ulpian) 481 n. 67

Early Christian works

- Tertullian*
De cultu feminarum 1,1 52 n. 267
Flesh of Christ 23 473–474
- Ambrose of Milan*
Letter 56 (Maurist Letter 5) 463–464, 476–477, 480–482
Education of a Virgin 8.52–9.62 474
Exhortation to Virginity 6.35 474
- Letters*
– 56.7 (CSEL 82.2:88) 476 n. 50
– 56.8 464 n. 2
Letters outside the collection
– 14.33 474
– 15.6 474
- Widows* 4.26 476
- Augustine of Hippo*
City of God
– 1.16–29 478 n. 60
– 1.18 473 n. 38, 478
- Cyprian of Carthage*
Letter 4.3–4 (CCSL 3B:17–26) 468, 475, 481
- John Chrysostom*
The Necessity of Guarding Virginity
– 2 477–478, 481
– 3 477–478, 481
- Maximus the Confessor (or anonymous)*
Life of the Virgin
– 46–47 474 n. 42
– 68, 115 474 n. 42

Medieval texts

Muscio

Gynaecia, Manuscript H. (incomplete)

- Chapters 139–141 203–204

Syriac Sources

*Anonymous**Syriac Book of Medicines* (Budge 1913)

- 172v–173r 182 (n. 23)
- 181v 183 (n. 24)
- 203v–204r 184 (n. 25)
- 204r 185 (n. 26)
- 270v 186 (n. 27)

*Ḥunayn ibn Ishāq**Risāla/Epistle* (Bergsträsser 1925) 176–179

- (ns. 6, 9, 10, and 12)

*Job of Edessa**Book of Treasures* (Mingana 1935) 179

- (n. 17)

Index Rerum

- abortion 39, 50, 69, 73, 73 n. 378, 77, 150, 157 n. 95, 200, 201, 242, 247 n. 49, 453
- abortifacient 48, 50, 67 n. 350, 368
- activity 51, 261, 359
 - Fetal 317
 - Physical (athletic) 469 n. 19, 57
 - Sexual 17, 48, 55 n. 282, 213, 470
 - Translation 195, 207–208
- adolescence 13–16, 21, 21 n. 91, 247 n. 50
- adult, female 21, 15, 353, 376, 377, 385, 387, 387 n. 100
 - *bogeret* (Hebr.) 15, 376, 377, 386–388
 - *gyne* (Gr.) 15, 15 n. 55
 - adultery/adulteress/adulterous 12 n. 37, 18, 21 n. 91, 377, 475
- Africa/African 14 n. 44, 20 n. 84, 195 f., 438–440, 475, 479 n. 61
- afterbirth 39, 39 n. 191, 176 n. 3, 202, 286 n. 199, 405, 405 n. 31, 411–12
- agency, female 61, 73, 219, 236
- aggadic/haggadic 197, 220, 323, 325, 330, 334
- ailonit/aylonit* 30, 30 n. 142, 374, 380
- Akkadian 5, 9, 14, 17, 20 n. 88, 40, 51, 69 n. 358, 76, 182 n. 22, 184, 187, 189, 237 n. 16, 241 (n. 28), 241–261, 269, 271, 273 n. 147, 276, 282, 403, 405 n. 31, 410, 430 n. 34, 465 n. 6
- Aleppo 175
- Alexandria/Alexandrian 179, 446, 446 n. 38, 450, 458, 471
- Alphabet of Ben Sira* 54 n. 280
- amenorrhea 242, 359, 358 n. 39
- androgynos* ('two-sex person') 26–27, 26 n. 122, 27 n. 125
- animals; 8, 9, 17, 59, 139, 142–143, 146, 149, 150, 165, 180, 256, 270, 275 n. 156, 278 n. 168, 280, 282 n. 186, 307, 309, 312, 314–315, 332 n. 46, 411, 413, 415, 443, 446, 454 n. 22
- as remedies/medical substances 39, 146
- anus/anal 162–163, 404 n. 25, 407, 450
- analogy/analogous 9–11, 18, 34, 37, 40, 43, 52 n. 265, 60, 63, 157, 160, 247 n. 50, 261 n. 102, 291, 311, 326 n. 18, 327–28, 330, 444 n. 30
- Aramaic 38 n. 188, 69 n. 358, 325, 373 n. 75, 379, 403, 404 n. 24, 406, 416, 431
- archiatri ('appointed physicians') 463 n. 1
- asthma 184–185
- Athens 426, 426 n. 22, 471
- Atramḥasīs Myth* 5–6, 24 n. 107
- atresia 407, 411, 470
- Avesta(n)* 333–334
- Babylonia/Babylonian XII, 32, 35, 36, 37 n. 183, 40, 41 n. 205, 42, 48 n. 247, 50, 51, 53 n. 273, 54 (n. 278), 58, 59 n. 307, 62, 76, 156 (n. 88), 157, 187, 233–305, 327 n. 23, 331, 333 (ns. 57 and 58), 334, 336 (n. 75), 338–340, 349 n. 6, 357, 361 n. 46, 369, 371, 371 n. 75, 383 n. 90, 403 (n. 18), 412, 415 n. 73, 430, 432, 439 n. 18, 444
- balance 15, 55, 182, 311, 313–315, 318, 319
- bandage 32 n. 154, 38, 154, 241 n. 28, 248 (n. 53), 268 n. 127, 275 n. 155, 278–79 (n. 172), 281–82 (n. 179), 289, 291, 401, 404 (n. 22), 405–6
- birth 6–7, 16–18, 20, 25–26, 31–32, 35, 39–42, 46, 50–55, 62, 75–77, 79–80, 82–83, 134, 138–43, 147, 149–53, 155, 157–61, 163, 165, 188, 198–202, 219, 233, 235, 240–44, 246–47, 255, 258, 270–77, 279, 286 n. 196, 313–19, 325, 327, 330, 348, 357–61, 365, 376, 380–81, 399–400, 407–10, 416, 453, 466
- assistance in 54–55, 62–65, 74, 402
 - beginning of b./labor 23 n. 102, 32 n. 155, 47, 52–53, 252 n. 63, 316, 348, 477

- complications 52–53, 54 n. 276, 77, 205–06, 208, 211, 221, 223, 317, 351–52, 403, 407, 431, 436–38, 444, 446–47, 474
- premature 158, 247 n. 49, 353, 363, 368–69, 473 n. 36
- of twins 53, 249, 279, 333, 353–56, 362–63, 365–71, 391, 442, 444
- virgin b. 22–23, 371–90, 464, 468, 473 n. 39, 478–79
- birth control 353, 359 n. 39
- birth omen(s) 25, 50, 249
- birth rituals 50–51, 53–55, 54 n. 279, 63, 137, 139 n. 20, 259–60, 275
- birth (and) sacrifice 36, 352, 355, 356 n. 32, 376
- birth-stool 259, 436, 439
- birthing brick 52, 53 n. 271, 151 (n. 69)
- bleeding (non-menstrual) 9, 16, 32, 34, 36, 38 n. 186, 54, 157, 160, 201, 235–36, 238, 240–44, 248–49, 250 n. 56, 251–254, 256, 263, 266–67, 291, 359 n. 39, 365, 388, 430, 445
- post-coital 18, 21–22, 73 n. 378, 465–66, 472–73
- post-partum 61, 359 n. 39
- rectal 254 n. 70
- blood 146, 154, 156–163, 165, 233–306
- menstrual, see *menstrual blood*
- bloodletting 423, 430, 450
- bodily substances; as remedy 38–39, 57, 274, 277, 280–82
- Book of Urine*, by Isaac Israeli 213
- breast(s), female 7–9, 14–16, 25, 30, 55–63, 148, 158, 160, 200, 216, 245–46, 276, 353, 360, 373, 377, 384–86, 388, 409, 414 n. 70, 453, 455
- breastfeeding 9, 29, 35, 55–61, 62, 80, 134 n. 4, 199–200, 209, 284–86, 353, 359 n. 39, 360, 409
- breast milk (also mother's milk) 55–61, 80, 268, 277
- as remedy 38, 58, 61, 277–80
- as cultural, religious essence 59–60
- concepts of formation etc. 12 n. 37, 35, 56–58, 160, 317–18, 329, 353
- bride(s) 18 n. 73, 21, 23 n. 101, 35 n. 170, 376 n. 80, 414, 467, 474 n. 42, 482
- Bundahišn* 333–334 (ns. 59–60), 338 (n. 83)
- Cairo Genizah 175, 181, 367 ns. 62–63
- care
 - prenatal 55, 62, 200, 209, 477 n. 55
 - neonate 54–55, 200, 209, 399–419
 - infant 56, 200, 209, 399–419
- Carthage 465, 479
- cassia 183–84
- chastity 23, 467, 470, 478, 479 n. 60, 482
- cedar 184, 239, 285
- celibacy 18, 22, 479, 482
- Christ 473 n. 39, 475, 478–79, 482
- Christology 23, 479
- Church 28, 61, 446, 475, 479, 481–82
- circumcision 400, 401, 402, 404, 406, 411, 415
- climax, see *orgasm*
- clitoridectomy 449, 454, 455, 457, 459
- clitoris 25 n. 119, 30 (n. 141), 202, 214, 449, 454, 455–458
- competition 42 (n. 110), 64
- conception 6, 9, 10, 12, 16, 22, 33, 39–44, 46, 48–50, 77–78, 80, 82, 134, 149, 154–55, 165, 200, 213–15, 307–8, 313–14, 316–17, 325, 327–28, 329, 333, 347–48, 353, 363, 365, 369–70, 388 n. 101, 389, 403, 453, 466 n. 10
- coitus* 313, 352, 361, 465 n. 6, 466, 471
- *interruptus* 350, 352, 357–358 (n. 36), 379
- Constantinople 450, 452, 477 n. 53
- contagion 257 n. 86, 260–261, 268 n. 128, 273 n. 150
- contraception 19 n. 82, 73 n. 378, 154, 347, 350, 353 n. 23, 357, 359 (n. 39), 371, 384, 391
- contraceptive(s) 19, 41 (n. 202), 50, 57 (n. 297), 67 n. 350, 347, 353 n. 23, 359, 470
- contraceptive absorbent (*mokh*) 347, 350–353, 358, 361, 379, 389
- contraceptive potion 65 n. 341, 368
- coriander 49, 188–189
- corruption
 - bodily (hymenal, genital, sexual) 475, 480 n. 65, 481
 - textual 69 n. 358
- cosmetic(s) 67, 197–98, 450, 453
- dam ḥimud* ('blood of desire') 21 n. 94, 34 n. 169, 338–339

- date(s) (fruit) 70–71, 253, 274, 429, 459
demon(s) 18, 40 n. 196, 254 n. 71, 270, 280
(n. 176), 285, 288, 290–292, 415 n. 73
De ornatu mulierum, see also *Trotula*, and
Šēār yāšub 195, 197–198, 218
De passionibus mulierum, see also *Sēfer*
hā'em 'el g'alinus
– A: 207 (n. 5)
– B: 195, 207
De virginum morbis ('Diseases of Young
Girls') 480 n. 65
diarrhoea 185–186, 279
discharge (see also flux) 9, 34 (ns. 167 and
168), 37 (ns. 182–184), 38, 42 n. 207, 77,
161–163, 180, 204, 233–305, 314–315, 317–
319, 337–340, 353, 359, 376 n. 78
disgust 235, 255, 260, 270
Dreckapotheke 280, 286
ectopic 363, 442–443, 447
ejaculation 258, 335–40, 358
embryo 11, 35, 39–53, 55–56, 65 n. 341, 68
n. 354, 77–81, 146, 151, 156 n. 90, 157–58,
178, 309–12, 314–15, 317–18, 320, 324–25,
328–30, 332 n. 46, 333–34, 336 n. 75, 340,
353, 362–63, 366, 444
embryogenesis 41 n. 202, 323, 329–330, 333
n. 54, 334 n. 61, 336 n. 75, 337 (n. 82)
embryotomy 53, 225, 441, 446
Enki and Ninmah 5, 24
ensoulment 43 n. 216, 46, 82
epilepsy 38, 278–280 (n. 176), 281 n. 178,
288 (n. 206), 289 (n. 210), 290, 292
expertise (medical), female 4, 31, 62–63,
65–66, 69–71, 74, 85, 474–75, 480–81
experts (for female health-care)
– female 30–31, 63–67, 69–70, 72–75, 83
– male 7, 12–13, 63, 70, 72, 75, 219–21, 342,
437, 466–67, 480
female body, concepts of (see also *analogy*,
metaphor) 133 f., 135, 138–43, 146–49,
151, 156–57, 160–65
– agriculture 9, 160 n. 108
– as container 7–10, 18, 40–41, 47, 148–151,
154, 312, 319, 329–30
– as vessels 8, 10, 40, 149, 165, 330
– as a landscape 9, 18, 157
– as a field, garden V, 7, 9–10, 18
– as water ways, rivers 7, 9–10, 244, 245
n. 42, 467
– as a house or building 7–9, 11–13, 40,
47, 149 n. 54, 251, 329–30, 436
– fertility 8–10, 33, 41, 50, 60, 67 n. 349,
133, 134 n. 4, 138, 161, 165, 233, 235, 237
n. 15, 239, 248 n. 52, 255 n. 74, 258, 453,
469 n. 20, 474, 477 n. 52
– test 12, 20, 41 n. 205, 58, 153, 473 n. 37
fetus/foetus (also *fetal*) 14, 39–41, 45, 47
n. 241, 48 n. 244, 49, 53, 80, 160, 175, 185,
200, 205–6, 225, 240–41, 243 n. 34, 247
n. 49, 248–49, 274, 291, 312, 314–15, 317–
19, 324–25, 328–30, 333, 339, 350–64,
366, 369–70, 436–37, 439, 441–44, 446
– dead f. (see also *embryotomy*) 53 n. 273,
202, 380, 387 n. 101, 455
– eight-months f. 47, 77, 360
– seven-months f. 47, 79, 357, 360–61,
369–70
– position of the f. 40–41, 47, 158, 199,
201–2, 205–7, 226, 330
– sex/gender of the f. 9, 46 n. 234, 316–17, 334
forceps 456–458
form-matter paradigm (Aristotle) 309, 324
n. 3
fumigation 12, 32–33, 146–147, 153–154,
165, 189, 282–283 (n. 188), 284–286, 286
ns. 197 and 199, 287 (n. 205), 450, 453,
468 n. 18
gender 3–6, 9, 14, 18, 21, 23–31, 34 n. 167,
36, 44, 83, 148, 188, 248, 251, 318, 327
n. 22, 329 n. 29, 331 n. 43, 332 n. 46, 333,
347, 350–51, 422, 431 n. 37, 460, 470
– gap/bias 66, 70, 75
– g. reversal 25, 247 n. 50
genital bleeding, see *haemorrhage*, *bleeding*
gestation 6, 8, 39–41, 82, 353, 365, 442, 447
– theories of 35 n. 176, 333, 42 n. 207, 44–
45, 47–48, 55, 314–15, 360–62, 368–71
gillyflower 181
ginger 183
Gospel(s) 61 n. 320, 474 n. 42
guardian, male (for female relatives) 12, 16,
28 n. 128, 66, 319, 357, 371–374, 378–379,
381, 382 n. 86, 385, 387, 390–391

- Gynaecia* (Pseudo-Cleopatra)/*Genecia Cleopatre* 195 (n. 11), 207 (n. 51)
Gynaecology (Soranus of Ephesus) 193–195, 198, 207 (n. 50).
- haemorrhage 201, 216 n. 88, 233, 239, 240
 n. 24, 244, 249–250, 251 n. 59, 254 (ns.
 68 and 70), 257, 266 n. 121, 281 n. 178, 291
hargasha (bodily sensation) 334–337, 338–339, 340
harimtu ('single woman'/'prostitute?') 275–76
harištu ('woman in confinement', menstruant?) 267–70, 273, 276, 282, 291
 henbane 183–186, 188
 homosexual/homosexuality (also lesbian/lesbianism) 5, 27–28, 68
 honey 183, 185–188, 204, 408
 hulkwort 183
 humor(s), humoral 15, 55, 212, 309, 311, 313, 315, 319
 hylomorphism 309 n. 6
 hymen /hymenal 17, 19–23, 326 n. 18, 383, 463–89
- iatros/iatroi* 63 n. 329, 64 n. 336, 74–75, 425, 431
iatrine (also medica) 66, 69 n. 357, 425–26, 431
 imbalance 75 n. 385, 235, 255 n. 75, 309, 319
 impulse 7, 14 n. 44, 310, 312, 456–57
 impurity (see also pollution) 16, 20, 22
 n. 97, 26, 34 n. 168, 36–38, 40 n. 196, 41, 44, 51 n. 257, 54–56, 72 n. 375, 73 n. 378, 76–77, 80, 82, 233, 243, 254–66, 270–77, 280, 291, 348, 366, 382, 388
 – menstrual (see also *niddah*) 36, 38, 254–56, 262, 264, 275, 335, 339, 353, 356, 389
 – post-partum 37–38, 40, 54–55, 259–61, 263, 267, 274–77, 353–56, 366, 474
 – through male genital discharges (see also *zav*) 37, 238, 257–58, 265–66, 336, 376 n. 78
 incantations 9, 38, 50, 54 (n. 280), 63, 70, 76, 133, 137–138, 157, 159, 237–238 (n. 19), 245, 248–249, 252 n. 63, 253, 267 (n. 124), 268 (n. 128), 270, 273, 285, 287 n. 206
 infertility 29–30, 32, 50, 65 n. 341, 77, 158 n. 104, 188, 362 n. 49, 474
Institutes of Justinian (Codex Juris Civilis) 349, 389, 438
 intercourse (sexual) 11, 16n. 60, 27 n. 128, 35–36, 37 n. 184, 158, 214, 266, 324, 333, 352–53, 357–59, 370, 375–78, 381–84, 387, 391–92, 456
 – and virginity 17–19, 35 n. 170, 360, 463–66, 468, 473 n. 37, 478, 480
 – as (un)healthy 36, 41 n. 205, 47 n. 241, 48 n. 246, 49, 52, 213, 215, 266 n. 121, 361
 – bleeding after i. 34 n. 168, 38 n. 186
 – impurity 258–62, 267 n. 124, 270–71
 – pain 17, 22
 inter-sex 24–27
 interval 367 (n. 64), 368–369 (n. 70), 371
 – delivery 362
 – menstrual 35, 235, 388
- Jesus 23, 26 (n. 120), 34 n. 168, 47 n. 242, 425, 468, 474 n. 40
 Judaeo-Syriac 175, 181
 Judaization 82, 217
- katamenia* (see also menstrual blood) 324, 339
- Lamaštu/Lamashtu (demon) 65 n. 342, 268–70, 280, 283–86, 292
 levirate marriage (*yibum*) 358, 360, 369–70, 374, 382
Liber de sinthomatibus mulierum 195, 197–98, 213, 218
 liminality, liminal 41, 50, 54, 245–47, 255, 269, 270, 273, 277, 290–91
 lochia 55, 241, 277–78, 318–19, 359 n. 39
- maiden (Hebr. *na'arah*, *betulah*; Gr. *kore*) 13, 15, 18, 213, 244–45, 352, 390–91, 464
 maidenhood (Hebr. *na'arut*) 377, 381, 383, 386–87
 magic 63, 70, 137, 269, 290 n. 216, 430
manteis 74 n. 383
 marriage 5 n. 2, 14–18, 20–23, 29 n. 138, 36, 51 n. 258, 80, 246 n. 44, 247 n. 50, 271, 319, 339, 348, 357–58, 360 n. 43, 370–85,

- 387, 389–92, 414, 456, 465 n. 6, 468 n. 16, 478 n. 58, 479, 482
- masturbation 44, 323–46, 358
- Egyptian myth 5, 24, 146, 152 n. 75
 - female 326–27, 339, 334–41
 - male 327, 340 n. 91
 - in Graeco-Roman writing 325–326
- materia medica* 240 n. 24, 277–78, 289, 402
- maia* 63–64, 66, 75
- maruštu* 243, 291
- membrane 19, 22, 55, 407–8, 445, 465–66, 470–71, 473
- menarche 14, 16, 21 n. 91, 207, 233, 235, 237, 245–47, 381, 383–85, 387, 389, 391
- menopause 35, 208, 233, 235, 237, 242, 247, 258, 348
- menstruation 16, 33–39, 149, 157, 180–81, 183, 185, 200, 208, 222–23, 234–36, 335–37, 383–84, 389, 391, 470
- absence of 35 f., 154, 159, 162–63, 201, 223, 242, 248–49, 314, 359
 - conception of 33–39, 244–49
 - (male) discourse on 13, 76–77, 80, 82, 179 n. 16
 - marking sexual difference 21, 29–30, 32 n. 156, 234 (n. 3), 235–37, 249–54
 - and impurity/pollution 26 n. 122, 36, 76, 234, 236, 238, 243 n. 36, 255–57, 260–62, 268 n. 128, 271, 273 n. 150, 277, 335 n. 64
 - and pregnancy 35–36, 44, 160 n. 109, 161 n. 110, 243 n. 34, 248–49, 253, 314–15, 319
- menstrual blood 19, 21 ns. 93 and 94, 22, 41, 160 n. 108, 234, 238, 244, 251, 348 n. 4, 383–84, 388–89, 466, 471, 473 n. 38, 478 n. 58
- as remedy 38–39, 277–90
 - as semen/female seed 43, 156, 310–12, 324, 325 n. 7, 329, 333, 336–39
 - as nourishing the unborn 44–45, 249, 314, 317–18
 - as raw material for breast milk 35 n. 176, 56, 317–18
 - as causing impurity 16, 26 n. 122, 34 n. 167, 76, 36–38, 254–77
 - lack of 34, 243
- menstruating woman (also *menstruant*) 33–39, 80, 268 n. 127, 276, 281, 290, 334–36, 388
- separation/seclusion 36, 264
 - impurity of 36–38, 76, 258–59 (n. 88), 260–62, 266, 270, 275–76, 323, 335, 340
- Mesopotamia (late antique) 403, 432
- Mesopotamian medicine 3–5, 8–9, 12–14, 17–19, 23–24, 27–28, 32–34, 36 n. 176, 38–41, 44–49, 51–54, 56, 62, 65, 67, 76, 140 n. 24, 157, 158 n. 98, 233–305, 338 n. 83
- metaphor (see also *analogy*) 40, 157
- female body/physiology 11, 37, 148–49, 252 n. 63, 329, 385
 - reproduction 148
 - Middle Persian 182–83, 185–87, 189, 326, 333–34
- midwife/midwives 9, 18 n. 72, 20, 23, 51 n. 258, 53, 62–67, 69, 74, 76, 78 n. 409, 177, 201, 205–06, 209, 219–20, 236, 277, 290, 348 n. 5, 401 n. 12, 402, 411, 426, 431, 445, 463–64, 468–70, 474–82
- midwifery 7 n. 14, 32, 51 n. 258, 62 n. 325, 65, 66 n. 348, 68, 78, 80, 408, 457 n. 30
- ‘milk’ (bodily fluid, ancient Egypt) 143, 154–56, 159–61, 165
- minor(s) (also *qatan/qetanah*) 15
- girls 16 n. 60, 347–96
- miscarriage 200, 240, 257, 362 n. 50
- protective amulets against 50, 248
- modesty 7, 12, 30, 218–20, 348, 363, 387, 469 n. 22, 476–77, 480
- mother’s milk, see also *breast milk* 56, 59, 161, 200
- musukkatu* (‘postpartum woman’) 262, 267–68, 270–71, 273, 275–78, 280
- musukku* 261–62, 270–71, 273
- newborn 26, 54 ns. 277–79, 55–56, 58, 63, 65, 69, 73 n. 378, 78, 82, 258–59, 399, 400, 402, 404–13, 415–16, 443
- New Testament 23 n. 102, 80, 425, 428
- niddah* 37, 80, 258, 335–36, 339–40, 353, 356
- nosebleed (and female genital bleeding) 34, 249–51, 253
- nurse (wet-nurse/nursemaid) 57–60, 62–65, 66 n. 343, 69, 74, 159, 200, 204, 267–68, 329, 349, 364, 409
- nursing 30 n. 146, 61, 151, 159, 352, 364–65, 389, 409, 414, 431

- nutrix* 59–60
- obstetrics/obstetrician 50, 53, 62–64, 66–69, 72 n. 370, 79, 133, 137, 204, 209, 219, 221, 347–50, 368, 444, 449–50, 453
- one-seed theory 42 n. 207, 323–24, 329–330, 333 n. 54, 339
- omen(s) 25, 50, 76, 236, 243 n. 35, 249, 262–64, 266, 275–76, 291, 408
- orgasm 42, 331 n. 45, 335, 337 n. 79, 338 n. 85
- ovulation 33, 41, 359, 362–63, 365, 381, 384–85, 387, 389, 391
- opium 184–88
- Palestine (Roman province of *Palestina*) 70, 341, 412, 415 n. 73, 422, 425, 432
- pangenesiis 333
- papyri
- Ancient Egypt 136–38, 147, 158, 279
 - Greek 13 n. 44, 57 n. 299
 - Judaeian 425
 - Magical (PGM) 164
 - parsley 49, 184
- parturient 38, 62, 202, 206, 257–58, 260–61, 263, 267 n. 123, 276–77, 330, 376 n. 78, 416
- passivity, passive 27 n. 128, 39–42, 44, 51, 71, 149–51, 309–10, 317, 319, 325, 327 n. 22, 329, 412, 480 n. 65
- patient(s) 72, 74 n. 381, 265, 273 n. 150, 275 n. 155, 280, 286, 287 n. 206, 290, 423, 420
- patient-doctor interaction (female/male) 71–75
- pearl 157 n. 95, 186
- pellitory 184–88, 429
- penetration, penetrate, penetrated 21–22, 27 n. 128, 28 n. 133, 292, 338 n. 83, 383, 391, 465, 468, 473–74, 480–81
- pepper 183–86, 188
- Pergamon 79, 432, 450
- Persia, Persian 28, 38, 54, 182 n. 22, 183, 185–87, 189, 326 n. 13, 333–34, 341, 413 n. 66, 438, 450
- Pessaria* (Muscio), see also *Sēfer Dīnā* 198–199, 202, 207, 209–210, 216, 219, 226.
- pharmacology/pharmacological 50, 66, 73 n. 376, 78, 179, 188, 422, 424, 426, 428–30, 432, 466, 468
- physician(s), female 62–67, 76, 421–34, 467
- women's physician(s) 31, 63, 74, 213, 221, 324, 409, 452
 - male and female patients 71 n. 369, 73 n. 378, 219, 365, 408, 463, 466, 469–70
- placenta 54 n. 278, 144–46, 209, 354–56, 362, 366–69, 441, 455
- retention 53, 180, 202, 368
- pleurisy 422, 424
- pollution 36, 234, 236, 238, 243 n. 36, 255–57, 260–62, 268 n. 128, 271, 273 n. 150, 277
- poultice 34 n. 168, 204, 400, 401
- Pragmateia* (Paul of Aegina) 80–81, 179 (ns. 14 and 16)
- pregnancy 7 n. 14, 33, 39–50, 57, 63–64, 74–80, 134, 138–39, 177, 180, 188, 198, 312–13, 325, 347–96, 409, 414, 438, 442
- as signalling adulthood 17, 19, 21–22, 474
 - beginning of 41, 45, 213, 309, 476
 - duration of 45–48, 150, 259, 444
 - complications 48–50, 69, 213, 240–44, 253, 254 n. 69, 263, 274, 291, 365
 - metaphors/analogies 39–41, 44, 157–61, 309, 438
 - prognosis 161, 165, 316–17
 - termination of 48, 150
- pregnant (woman) 9, 10, 15, 17, 22 n. 100, 31, 40, 45, 48–49, 140 n. 27, 141, 149–54, 157–59, 184–86, 216, 240, 243 n. 34, 247–50, 259, 274–75, 313–16, 325, 341, 351–53, 357 n. 35, 359–62, 364–65, 368–70, 376, 384, 389, 391, 416, 431, 436, 438–40, 442, 444, 453, 470, 480 n. 65
- priest(s), priestly 27–28, 62, 236, 247 n. 50, 255 n. 74, 257–58, 259 n. 93, 263, 264 n. 113, 334 n. 62, 335, 382, 387, 440–42
- Protevangelium of James* 23 n. 102, 64, 468–69, 474
- puberty 13–16, 35, 82, 245–47, 311, 339, 348, 357, 384, 387–89
- signs of 16, 245–46, 311, 358 n. 35, 371–72, 380–81, 388
 - rituals connected to 14–15, 237, 246–47
- pubic (area/hair) 14–16, 29–30, 146, 148, 154, 158, 161–64, 246 n. 44, 349 n. 6, 351–52, 371–73, 375–88, 391

- purity 11, 16–18, 20, 22 n. 97, 26, 32, 34, 36–37, 41, 44, 51 n. 257, 56, 73 n. 378, 76–77, 80, 82, 260, 261 n. 102, 263–65, 275, 328, 337 n. 82, 388, 392, 467, 472, 474 n. 41, 478, 480–81
- rape 17, 21, 48, 152 n. 76, 219, 357, 387–88, 478 n. 60
- rebellious wife (*moredet*) 387
- recipe(s) 19, 34, 38–39, 54, 58, 64, 66–72, 74, 76, 81, 138, 143, 156, 159, 163–65, 175, 185, 187–89, 197–98, 216, 238, 240, 242, 265 n. 118, 278–80, 284–86, 288, 364, 399–400, 402–08, 410–16, 421–32, 466–68
- residue 314–15, 337 n. 82
- Rome 12 n. 35, 19, 23 n. 103, 59, 63, 277 n. 166, 438, 444, 463, 465, 470, 472, 478 ns. 57 and 60, 480
- sacrifice 25 n. 114, 36–37, 74 n. 383, 256, 258 n. 90, 260–61, 352, 354–55, 356, n. 32, 370, 375 n. 78, 376 n. 79
- saffron 182, 184, 186–188
- Samana (disease/incantation, Babylonia) 244–46
- sandal* ('compressed fetus') 45, 352–56, 358, 361, 363, 366, 443–44
- Ša'ar hanāšim* ('Chapter on Women') 196, 216 (n. 88).
- Šē'ar yāšub* ('A Remnant Shall Return') 197 (n. 23), 218.
- Seed, female 41–42, 44, 156 n. 88, 201, 214, 311, 323–46
- male 14 n. 44, 44–45, 311–12, 326–29, 333, 440
- as a metaphor 40, 329–30
- Sēfer 'ahābat nāšim* ('The Book of Women's Love') 196, 216 (n. 88)
- Sefer Asaph ha-Rofe* (*Book of Asaph the Physician*) 81, 197, 220
- Sēfer Dīnā lēkōl 'inyān hāreḥem wēḥālēyehāh* ('Dinah's Book on All that Concerns the Womb and Its Diseases'), see also *Pessaria* 219
- Sēfer hā'ēm 'el g'alīnus [hu' haniqrā' genī-sias]* ('The Book of the Womb by Galen [which is called *Genecial*']), see also *De passionibus mulierum*. 195, 209, 216 (n. 89), 217.
- Sēfer hasēter* ('The Book of the Secret'), see also *Liber de sinthomatibus mulierum*.
- 197–198, 216 (n. 89), 217–218.
- Sēfer hayōšer* ('The Book of the Upright') 196, 218
- Sefer ha-Toldedet* (*Book of Generation*) 82 n. 429, 193–230
- self-help 73, n. 378, 74, 83
- semen 42, 43 n. 216, 44, 45 n. 228, 152, 176, 280, 283 n. 186, 309, 323–46, 478 n. 58
- female 35, 42 n. 209, 56, 138, 155–56, 201, 214, 266, 280, 323–46
- male 6 n. 5, 35, 39–41, 43, 45, 135, 138, 147, 149, 151, 154–56, 159 n. 105, 258 n. 88, 265–66, 310–11, 324, 336 n. 75, 370
- emissions and pollution 34 n. 167, 37, 255 n. 74, 257 n. 86, 258, 260, 277, 335
- wastage of 326 (n. 13), 327 n. 19, 350–52, 358
- Shabbat 80, 348, 372 n. 73, 384, 400, 401, 416 n. 77, 429, 436–37
- Shahnameh* (*The Book of Kings*) 438
- shame 7, 25 n. 119, 218, 220
- slaves 4, 246, 326
- female 20, 46, 64, 66, 68 n. 354, 477
- sperm (see also *seed, semen*) 15, 29 n. 137, 42, 44, 156, 310–12, 329, 337 n. 82, 349, 362–63
- spikenard 182, 184, 186–188
- spurge 183, 185–187
- squill 184–185, 283 n. 188
- superfetation 77, 347–96, 444
- Syriac 4, 80–81, 175–192, 474 n. 42, 479 n. 64
- Syriac Book of Medicine* 399 n. 3, 406 n. 40
- tampon 12 .39, 32, 1460, 154, 157–58, 240 n. 24, 353 n. 22
- The Trotula* 195, 197–98, 221
- attribution to Dinah 219
- third gender 23, 27–31
- teratology 48
- Tiberias 70
- tumtum* 26 (n. 123), 27 (n. 125)

- two-seed theory 323, 324–325, 333, 334, 336 (n. 75), 337–338
- urruštu* ('dirty woman'/'menstruant') 266–70, 276, 282, 284 n. 193
- Uterine complex, female (ancient Egypt) 139–143, 149, 159–161, 165
- (*id.t*) 133, 139–143, 148, 151, 154, 157 f., 161–165
 - (*mwt-rmt*) 133, 139, 143, 148, 163–165.
 - mouth 152–154, 165
 - sealing and reopening 157 f.
 - suffering 161–165
- umbilical cord 44, 54, n. 277, 200, 252, 314, 369, n. 68, 401, 408, 416, 439
- unborn (child) 11 n. 33, 39–41, 44–48, 51, 53, 58, 65, 81 n. 424, 82, 160, 188–89, 310, 317, 319, 365, 436–37, 439, 441, 446
- Urine 29 n. 37, 38, 162, 163 n. 118, 182, 213, 254, n. 70, 256, n. 76, 265, 277, 280, 289, 340, 468
- uterus 7, n. 14, 8–10, 12, 19 n. 77, 30, 35, 39, 41–42, 51, 56, 77, 139–143, 163–64, 196, n. 15, 311–13, 316–17, 340, 351–52, 353, n. 24, 354, 356, 362–63, 368, 369, n. 68, 391, 440, 442–43, 445, 453, 455, 466, 469 n. 20, 473 n. 37
- vagina 5, 7–8, 12, 17, 19, 32, 140–42, 146–49, 152–54, 157–58, 160, 163, 200, 239–42, 250–51, 265 n. 116, 274 n. 151, 351, 358, 362, 383, 465 n. 6, 466, 468–70, 473, 478 480
- vaginal application(s), as remedies 12, 32, 50, 138, 146–47, 153–54, 157, 165
- Veiling of Virgins* (Tertullian) 474 n. 39
- Verona 463
- vestal virgins 468, n. 12
- virgin(s) 15, 17, 19, 20, 32 n. 152, 33 n. 159, 34, 271, 280, 289, 360, 384, 389, 456, 476
- virginity 17–23, 64, 73 n. 378, 80, 200, 213, 313, 414, 463–89
- diverse definitions 17–19, 80, 383, 389, 464 ff.
 - signs of 17, 19, 21
 - loss 19, 22
 - consecrated virginity 20 n. 84, 22–23, 473–74, 476, 482
 - vows 22–23
 - testing and proofs (medical and non-medical) 12, 20, 64, 463–64
 - votive(s) 50, 74 (n. 383)
- vulva 8–9, 25, 140, 141 n. 30, 152–53, 160, 163, 165, 205
- Vulva–Vagina–Complex (ancient Egypt) 5 n. 4, 8, 140 f., 146–48
- (*iwf*) 133, 139, 146, 147, 164
 - (*kʿt*) 133, 139, 146–148, 164 f.
 - (*šd*) 133, 139, 146–148, 164 f.
- washing 245 n. 41, 270, 273, 276, 291
- of the newborn 54 n. 277
 - ritual 258 n. 89, 259–61, 262 n. 107, 267, 271 n. 137, 272 n. 142
- wax 184, 423
- wine 11, 20, 34, 49 (n. 250), 54 (n. 278), 57, 188–89, 217, 226, 253, 279, 401, 430, 456, 459
- womb 5, 7–12, 17 n. 69, 19, 22, 33, 35–36, 39, 40, 44–47, 51–52, 56, 63, 65 n. 341, 80, 141–42, 149–51, 154, 160, 164–65, 177, 180–82, 184–85, 189, 195, 198, 199 n. 32, 200–02, 205–06, 210–14, 216, 219, 222, 224, 226, 234, 239, 241–42, 249, 252, 257–58, 312–13, 317, 325 n. 7, 329 n. 35, 338, 340, 361, 436, 438, 439 n. 15, 440–42, 444, 446, 457, 467, 471, 473–74, 478–79
- yevamah ("brother's widow") 360 (n. 43), 370
- yibum, *see levirate marriage*
- Zād al-musāfir wa-qūt al-hāḍir* ('Provisions for the Traveler and Nourishment for the Sedentary'), by Ibn al-Jazzār 196–197
- zav/zavah* ('flux/emission') 37, 336, 376 n. 78
- Zoroastrian 40 n. 195, 333, 334 n. 62, 336 n. 75, 338, 390

Index of Names

- Abbaye, rabbi (also Abaye, Abbaye) 69
 (n. 358), 362 (n. 47), 364 (n. 57), 368,
 399, 402–405 (n. 18), 412, 414–415
 (n. 73), 430–432
 Abaye's 'mother' (see also *Em*) 399, 402–
 404, 406, 415 (n. 73), 431
 Abraham ben Isaac 196 n. 17
 Aetius of Amida IX, 25 n. 119, 58 n. 303, 67
 (n. 350), 79 (n. 409), 81, 408, 427–428,
 449–459
 Alexander of Tralles 58 n. 303, 450
 Alexandra (Shelamzion, Hasmonean
 queen) 422, 424–425
 Andromachus (author) 428
 Antiochis (physician) 67, 426
 Apollo 329–330 (n. 36), 437
 Apollonius 210
 Aristotle 6–7, 15, 35, 40, 43 (n. 215), 45, 48
 (n. 246), 49 n. 251, 52 n. 269, 78 (n. 405),
 158 (n. 102), 176, 234 n. 3, 256, 307–
 321, 324 (n. 3), 333 n. 54, 336 n. 75, 337
 (n. 82), 353 n. 26, 409 (n. 52), 413 (n. 67),
 466 n. 8
 Asclepios (Asklepios) 74 n. 383, 437
 Asclepiades 423, 428
 Aspasia (physician) 67 (n. 350), 68
 (n. 356), 69, 427, 467 n. 10
 Aspasia (Pericles' consort) 427
Atum 5, 24, 39 n. 195, 147, 151–152
 Augustine 18 n. 74, 23 n. 103, 26, 59, 473
 n. 38, 474, 478 (ns. 57, 58, 60), 481–482
 (n. 69)
 Babatha 425
 Bauhin, Caspar 444 (n. 32)
 Budge, Sir Ernest A. Wallis 181, 399 n. 3,
 406 n. 40
 Caelius Aurelianus 25 n. 119, 67 n. 351, 78
 n. 409, 81 n. 423, 456–458
 Celsus 12 n. 40, 78, 401 n. 9
 Claudius 425
 Clement of Alexandria 23 (n. 102), 61
 (n. 320)
 Cleopatra (physician) 67 (ns. 351–352), 68
 (ns. 354 and 356), 69, 426–428
 Cleopatra (the Queen) 46, 427
 Dinah (Bible) 199, 218–19, 225
 Diocles 78 (n. 400)
 Dionysos 437
 Dioscorides 78, 180, 279, 454 n. 22
 Elephantis 67 (n. 352), 68 n. 355, 69
 Em, female medical expert (see also Abay-
 e's mother) 69 (n. 358), 403, 430–432
 (n. 40)
 Enki/Ea 5–6, 6 n. 5, 24, 244 n. 38, 245
 n. 41, 246 n. 45
 Enlil 5, 17, 244 n. 38, 246 n. 44, 271
 Ephrem 23 n. 102
 Eugerasia (physician) 426
 Eve (first female) 6, 11, 23 n. 102, 24, 32, 52,
 251 (n. 61), 257 n. 86
 Gaius (of Naples, physician) 424, 430
 Galen IX, 12, 51, 66–67 (ns. 352–353), 68,
 70, 79, 81, 156, 175–176, 178–181, 196
 (n. 15), 207, 212–213, 221, 324, 333 n. 57,
 334, 337 ns. 79 and 82, 399 (n. 3), 408,
 421–430 (n. 34), 432, 458, 466 n. 10
 Gamaliel (Rabban) 425
 Gesius 175 n. 3, 179
 Gudea (Sumerian) 272 (ns. 143 and 146),
 273
 Gula 62 (n. 325), 250, 276 n. 163

- Halieus (physician) 424
 Heliodorus 459
 Hermes 25, 437
 Herophilus 31, 32 (n. 151), 66 n. 348, 78 (n. 406)
 Ḥunayn ibn Iṣḥāq 175–179 (n. 5)
 Ibn-Tibbon, Moshe 196 n. 17
 Indicia 463, 464 n. 2, 476
 Jacob (Patriarch) 53 n. 276, 199, 218–19
 Jacob of Serugh 23 n. 102
 Jerome 23 n. 103, 81 n. 424
 Jesus 23, 26 (n. 120), 34 n. 168, 47 n. 242, 425, 468, 474 n. 40
 Job (Bible) 219
 Job of Edessa 81, 175, 177–80
 Johanan, Rabbi (see Yohanan)
 Josephus 425–426, 44 n. 31, 467 n. 14
 Justinian 349, 389, 438 (n. 9), 452
 Livia 422, 424
 Maimonides 194 n. 5, 335 n. 69, 338 n. 85, 340 (n. 91), 442 (ns. 22–23)
 Marduk 5
 Mary/s (in the New Testament) 20 n. 84, 22–23 (n. 102), 47 n. 242, 52 n. 268, 428, 468, 473–474 (n. 39), 478 n. 58, 479 (n. 64), 482
 Matrona 431
 Mar Samuel, see Shmuel (rabbi)
 Muscio 25 n. 119, 67 n. 351, 78 n. 409, 81–82 (n. 423), 193–230, 456–458
 Nufer, Jacob 444
 Oribasius of Pergamon 19, 57 (n. 296), 58 (n. 303), 79 (n. 417), 81, 408, 450, 454, 458 (n. 32), 470
 Originea (physician) 426
 Paul(os) of Aegina IX, 25 n. 119, 58 n. 303, 67, 79 (n. 409), 81, 175, 179 (ns. 14–15), 408 449, 454, 457, 458 n. 32, 459
 Phanostrate (midwife) 64 ns. 335–336, 74–75, 426
 Philumenus 79, 449, 454 (n. 21), 455–458
 Photius 452, 453
 Pliny (the Elder) 48, 51 n. 258, 64, 66–67 (n. 350), 78, 279, 290, 435
 Pognon, Henri 175
 Preuss, Julius 439, 443–444
 Rabbeinu Tam (R. Jacob b. Meir) 341
 Rashi 341, 352, 412, 431
 Rousset, François 445
 Rufus of Ephesos 79 (n. 417)
 Salome, Herod's sister 422, 424
 Salome Komaise 425
 Salome (physician) 67, 70, 421–428, 429, 432
 Salome (early Christian literature) 20 n. 84
 Samithra (physician) 426
 Sergius of Rēsh 'Aynā 175, 178–180
 Shmuel, rabbi (also Mar Samuel/Samuel) 22, 334–337, 335 n. 68, 339, 436–437 (n. 5)
 Soranus of Ephesus 19, 29, 48 (n. 245), 49 n. 250, 51 n. 258, 53, 56–58 (n. 296), 60 (n. 312), 64, 78 (n. 409), 81–82 (n. 423), 179, 193–195, 198, 207 n. 50, 210 (n. 59), 213, 234 n. 3, 324 (n. 4), 329, 399 (n. 3), 401–402 (ns. 12 and 16), 408–409 (ns. 47–48), 411, 449 (n. 2), 454, 456–458, 470
 Spendusa (physician) 426
 Syagrius 463, 476
 Tertullian 46 (n. 238), 52 n. 267, 81 n. 424, 446, 473–474 (n. 39–40)
 Theodorus Priscianus 81 n. 423
 Timtinis (physician) 70 (n. 366), 428–29
 Thodos/Theodoros (physician) 446 (n. 38)
 Trota (of Saleno) 197
 Valerius Paulinus (physician) 424
 Xanite (physician) 426
 Yohanan (rabbi) 30 n. 137, 49 n. 249, 70–71, 328, 367, 368 n. 64, 373 n. 75, 375 (n. 78), 377–378, 403, 429–431

Ancient Cultures of Sciences and Knowledge

Edited by

Markham J. Geller, Paul J. Kosmin, Lennart Lehmhaus, Matteo Martelli,
Heidi Marx, Tanja Pommerening, Bernd U. Schipper, Sabine Schmidtke

Advisory Board:

Florentina Badalanova-Geller, Marco Formisano, Ida Fröhlich,
Brooke Holmes, Rachel Rafael Neis, Antonio Panaino,
Francesca Rochberg, Jacqueline Vayntrub

The new series *Ancient Cultures of Sciences and Knowledge* attempts to study ancient histories of knowledge and their entanglement with religious, cultural and socio-political aspects, while paying attention to the historicity and cultural relativity of specific figurations of knowledge.

The series aims at a wide range of readers including specialists from different fields of ancient and religious studies, history of science, medicine and cultural studies as well as those interested more broadly in the entangled histories of pre-modern knowledge cultures, sciences, epistemology and religion. As a forum for pertaining research, studies will be published mainly as monographs (including dissertation and habilitation projects), and thematically coherent edited volumes but also as critical editions, translations and commentaries of relevant material.

ISSN: 2752-1850

Suggested citation: ASK

All available volumes can be found at www.mohrsiebeck.com/ask



Mohr Siebeck
www.mohrsiebeck.com

