TEXTILES IN ANCIENT MEDITERRANEAN ICONOGRAPHY

Edited by
Susanna Harris, Cecilie Brøns,
Marta Żuchowska

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SUSANNA HARRIS, CECILIE BRØNS AND MARTA ŻUCHOWSKA

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To our teachers and parents for passing on their knowledge and wisdom.

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Preface

The present volume started as a conference session 'Textiles in Ancient Iconography', held in Barcelona, Spain in September 2018 at the 24th European Association of Archaeologists (EAA) annual meeting. The session was organised to bring together scholars from across many countries, who often work alone in this research area. The tremendous response to the call for papers highlighted a latent need to share a common path of enquiry, approaches and results. During the conference scholars from different fields, including archaeology, classics and anthropology, and from a great range of countries, explored the role and testimonial of textiles in ancient Mediterranean iconography. This publication is based upon work from Cost Action CA19131 - EuroWeb: Europe Through Textiles, supported by COST (European Cooperation in Science and Technology). The papers were developed, written up and finalised during the COST Action period. The author's results published here have greatly benefited from their participation in COST Action network due to exchange of ideas and methods between participants from participating countries. The aim of this volume is to harness this energy, reflect on the current state of research and consider future directions of travel.

The book is organised chronologically, spanning the period from the Bronze Age to late Roman times and covering the 2nd millennium BCE to the 1st millennium CE. Geographically, the contributions include material from across the Mediterranean, including Greece, Italy, Spain, Syria and Tunisia. Each contribution is a separate chapter with footnotes and bibliography. While we attempted consistency, each author's style is respected.

The publication of the present volume was generously funded by the Centre for Research on Ancient Civilizations, University of Warsaw and the Faculty of Archaeology, University of Warsaw; Archaeology, School of Humanities, University of Glasgow; and the British Academy through a Postdoctoral Fellowship awarded to Susanna Harris, Principal Investigator then at the Institute of Archaeology, University College London (UCL). The Open Access publication was funded by COST (www.cost.eu) through COST Action CA19131 - EuroWeb: Europe Through Textiles.

The editors would like to thank the editorial team at Oxbow Books for their patience and flexibility during a time of global pandemic. The Covid-19 pandemic presented many challenges and personal tragedies; we are humbly grateful to all authors for continuing to work with us during this time. We are indebted to the anonymous reviewers of the individual papers for their supportive and constructive criticism which improved the papers in the present volume. The publication greatly benefited from the editorial assistance of Marion Cutting, who did a thorough job language editing all the papers. We are also very grateful to Peder Flemestad for his expertise correcting the glossary. Finally, we would like to thank very warmly all the participants for their stimulating papers and discussions, both during and after the conference, and the authors for their insightful contributions to this book.

Susanna Harris, Cecilie Brøns and Marta Żuchowska

Author biographies

Dimitra Andrianou is Senior Researcher at the National Hellenic Research Foundation at Athens. She received her PhD in Archaeology from Bryn Mawr College (US). She was a post-doctoral fellow and recipient of the Hirsch Fellowship at the American School of Classical Studies at Athens. She has excavated extensively in Greece, Cyprus and Turkey, and taught archaeological courses at the University of Pennsylvania, Bryn Mawr College and the National and Kapodistrian University of Athens. In 2010 she was awarded a prize by the Academy of Athens for her monograph *The Furniture and Furnishings of Ancient Greek Houses and Tombs* (2009). She is currently working on the iconography of ancient furniture textiles and has instigated a pilot programme of textile reconstruction. Her research focuses on funerary iconography and architecture, domestic architecture and the use of space, ancient furniture and furniture textiles.

Ricardo E. Basso Rial is a PhD student at the University of Alicante (Spain) holding a contract at the University Institute of Research in Archaeology and Historical Heritage at the University of Alicante. His research focuses on textile production in the Iberian Peninsula during Prehistory (3rd–1st millennium BCE) and on the Bronze Age communities in the east and the south-east of the Iberian Peninsula.

Cecilie Brøns is Senior Researcher and Curator at the Ny Carlsberg Glyptotek in Copenhagen, where she is the director of an interdisciplinary research project on the polychromy of ancient art, 'Sensing the Ancient World: The Invisible Dimensions of Ancient Art', financed by the Carlsberg Foundation. She received her PhD in Classical Archaeology in 2015 from the National Museum of Denmark and the Danish National Research Foundation's Centre for Textile Research (CTR) at the University of Copenhagen. Her research focuses on ancient polychromy and textiles, particularly in relation to ancient sculpture; and on the importance and effect of the senses for the perception and understanding of ancient art. She has published widely on ancient textiles, including the monograph *Gods and Garments. Textiles in Greek Sanctuaries in the 7th to the 1st Centuries BC* (2016) and the anthology *Textiles and Cult in the Ancient Mediterranean* (2017). Moreover, she has published on the polychromy of ancient art and architecture, most recently on the polychromy of Palmyrene portraits and on the reconstruction of ancient colours.

Mary Harlow recently retired from the University of Leicester where she held a position as Associate Professor (2013-21). Prior to this she was Guest Professor at the Centre for Textile Research in Copenhagen (2011-13). Her research and publications cover the study of dress and appearance, the history of age, ageing and the life course, and gender in the Roman period. Most recently she has contributed to and edited *A Cultural History of Dress and Fashion: Antiquity* (2017), *A Cultural History of Hair: Antiquity* (2019), *Textiles and Gender in Antiquity: From the Orient to the Mediterranean* (2020) and *A Cultural History of Shopping: Antiquity* (2022).

Susanna Harris is Lecturer in Archaeology at the School of Humanities, University of Glasgow. She completed her PhD at the Institute of Archaeology, University College London (UCL). Harris has been employed as an academic researcher in Italy, Germany and the United Kingdom. Her research focuses on the technical, scientific and experimental analysis of archaeological textiles, leather and material culture. Harris has published widely on archaeological subjects including the co-edited volumes *Wrapping and Unwrapping Material Culture, Archaeological and Anthropological Perspectives* (2014) and *Why Leather? The Material and Cultural Dimensions of Leather* (2014). She currently leads the fibre and fabric analysis of 'Must Farm, a Bronze Age pile-dwelling settlement', and is co-investigator of the Arts and Humanities Research Council (AHRC) funded project, 'Unwrapping the Galloway Hoard'.

Daphne D. Martin is a PhD candidate at the Faculty of Classics, University of Cambridge. Her current research focuses on the art and archaeology of Archaic Sparta. During her undergraduate studies in History of Art and Classics at Yale, she co-curated the exhibition *Sights and Sounds of Ancient Ritual* at the Yale University Art Gallery, working in particular on 3D colour reconstructions of ancient objects. In addition to her extensive excavation experience in Greece, she is also the founder and director of the 'Embracing our Monuments in Sparta' Initiative and DIAZOMA's Ambassador for the Ancient Theatre of Sparta.

Thaddeus Nelson is Adjunct Professor at Suffolk County Community College and Coordinator at the Stony Brook University Student Accessibility Support Center, both in Long Island New York. He completed his PhD in Anthropology at Stony Brook University in 2016, with his dissertation: 'Artifactual Evidence for the Role of the Warp-Weighted Loom: The Transformation of Textile Production in the Iron Age Levant'. His research focuses on methods of loom-weight analysis and textile labour organisation in the Iron Age Levant.

Magdalena Öhrman is Senior Lecturer in Classics at the University of Wales Trinity Saint David. Trained as a Classical Philologist in Sweden and Germany, her current research interests are in the area of Graeco-Roman textiles and textile production, textile terminology and technology, and in sensory experience of past societies. She held a Marie Skłodowska Curie fellowship at the Centre for Textile Research at the University of Copenhagen in 2016–2018 for the project 'Textile Reflections: Multi-Sensory Representation of Textile Work in Latin Poetry and Prose' and she is now preparing a project on textiles in early Christian texts.

Kelly Olson PhD, University of Chicago, is currently Professor in the Department of Classical Studies at the University of Western Ontario, Canada. She is the author of several articles on clothing in Roman antiquity, published in *Mouseion, Fashion Theory, The American Journal of Ancient History, Classical World* and *The Journal of the History of Sexuality.* She has recent chapters and articles on gender and appearance in publications from Oxford University Press, Blackwell, Routledge, Bloomsbury and Berg. Her first book, *Dress and the Roman Woman: Self-Presentation and Society*, was published in 2008; the second, *Masculinity and Dress in Roman Antiquity,* was published in 2017. Her latest book, *Dress in Mediterranean Antiquity: Greeks, Romans, Jews, Christians* (co-edited with Alicia Batten), appeared in 2021.

Rachele Pierini is a Marie Curie Research Fellow at the Saxo Institute, University of Copenhagen, where she carries out an interdisciplinary research project on Aegean scripts and transformational uses of plants in the Bronze Age Aegean. She received her PhD in Classical Philology from the University of Bologna, with a thesis on morphophonological idiosyncrasies in Mycenaean Greek. Her research focuses on the intersection between language and the material culture stemming from plants, in particular the formation and diachronic development of the Greek language, the cultural role of colour in Bronze Age Aegean fashion goods and ancient technologies applied to vegetal sources.

Amy Place received her PhD from the University of Leicester in 2020 with a thesis that investigated dressing practices in late Roman North Africa (*c*. 200–500 CE). Her research explores the role of dress discourse in the construction of identities in the later Roman world, particularly ideas of gendered dress in the context of early Christian society. She is also interested in the methodological issues of combining textual, visual and archaeological dress evidence and the negotiation of competing dress behaviours.

Agata Ulanowska is Assistant Professor at the Faculty of Archaeology, University of Warsaw, Poland. She received her PhD in Aegean Archaeology in 2014 from the University of Warsaw. Her research interests focus on Aegean archaeology, textile production and technology, experimental archaeology, and seals and sealing practices in Bronze Age Greece. She was awarded two grants by the National Science Centre of Poland for the projects: 'Textile Production in Bronze Age Greece – Comparative Studies of the Aegean Weaving Techniques' (2015–2017) and 'Textiles and Seals. Relations between Textile Production and Seals and Sealing Practices in Bronze Age Greece' (2018–2021). She is the chair of the COST Action CA 19131 EuroWeb. Europe Through Textiles: Network for an integrated and interdisciplinary Humanities.

Marta Żuchowska, archaeologist and orientalist, is Lecturer in Archaeology at the Faculty of Archaeology, University of Warsaw. She completed her PhD at the Faculty of History, University of Warsaw. Her current research focuses on textiles and their role in the economies of ancient societies. She was a member of the Polish archaeological team at Palmyra in 1995–2010. Since 2017, she has led the research project 'Textiles in the Palmyrene Iconography', financed by the National Research Centre, Poland.

Chapter 1

Introduction: Approaching textiles in ancient Mediterranean iconography

Cecilie Brøns and Susanna Harris

Abstract

Ancient Mediterranean iconography provides a wealth of information on the complex, colourful world of textiles. Commonly represented in clothing, textiles are also present in furnishings and the processes of textile production. As organic textiles have largely disappeared from the archaeological record, the iconography of textiles is a crucial resource, complementing knowledge gained from written sources and preserved textiles. Nevertheless, there is a persistent questioning of the reliability and relevance of iconographic representation. Yet, its methodology and discoveries need be neither unreliable nor irrelevant provided certain conditions are met: sufficient attention to the medium of construction; robust methods of analysis; appropriate comparison with other sources of evidence; and a critical awareness of the relationship between evidence, cultural context and interpretation. Through examining the iconographic evidence, this volume reveals the ephemeral world of textiles and the important contribution the iconography of textiles makes to the history of textiles and, importantly, to the history of everyday life in the ancient Mediterranean.

The vibrant world of textile iconography

This volume provides an exciting journey into the complex, colourful world of textiles in ancient Mediterranean iconography. The 'Ancient Mediterranean', a broad term referring to a period which spans the later Bronze Age to the end of the Roman Empire (1500 BCE–476 CE), signals a time of remarkable cultural and political interconnection between southern Europe, western Asia and north Africa.[1] These societies are known today through their literature, archaeological sites and a myriad of material culture. Some of the most iconic and intriguing aspects of this material culture are the majestic statues, bright-coloured wall-paintings, lively scenes on figured ceramics, intricate seals, coins and figurines, and the tessellated mosaic floors of grand villas. Enduring, powerful and political, these icons of ideology were not only striking to behold; they were also a means of promoting ideas, establishing social positions and stirring the emotions. These representations are often referred to collectively as 'iconography'. And a major feature of this iconography are the textiles. The aim of this volume is to explore the significance of the iconographic representations and their potential to enhance the understanding of textiles in the ancient Mediterranean. The contributors investigate textile iconography from across the Mediterranean from the Bronze Age to the Hellenistic period – from the 2nd millennium BCE to the early centuries of the 1st millennium CE (Fig. 1.1). The volume encompasses the north, east and west Mediterranean, and touches on the iconography of North Africa (Fig. 1.2).

As organic textiles have largely disappeared from the archaeological record in much of the Mediterranean region,[2] the iconography of textiles has become a crucial source of information, complementing the knowledge available from written sources and preserved textile remains. Given the significance of textiles to ancient Mediterranean life and society, it is important that this rich evidence is investigated to its full extent. However, making sense of images can be difficult, not least because the process of interpreting

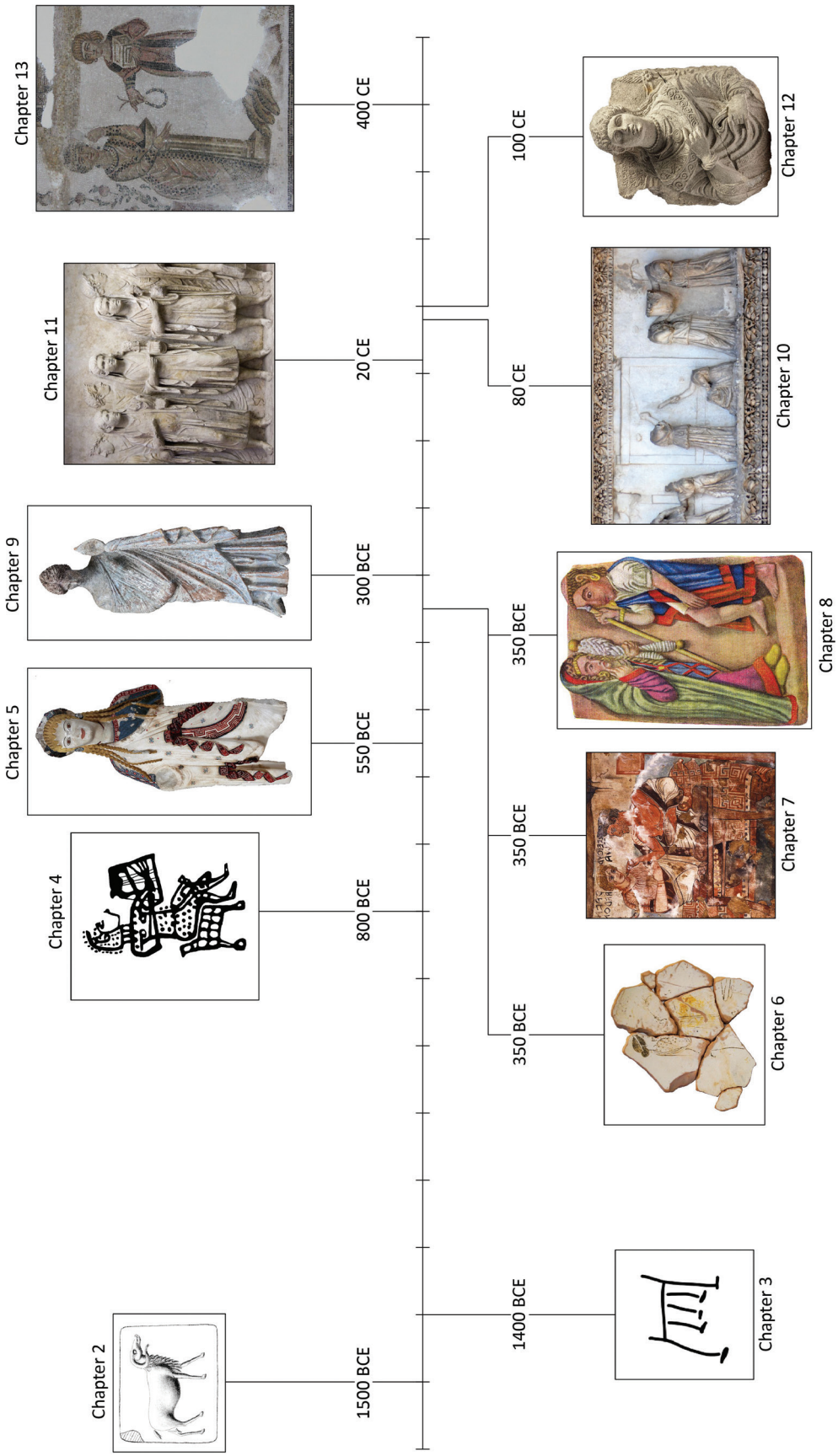


Fig. 1.1. Timeline of the papers in this volume. © Neil Erskine and Susanna Harris.

images is often taken for granted. Anyone investigating ancient iconography has first to determine *how* to interpret what is seen. And, most importantly, the extent to which these images correspond to the reality of contemporary life.[3] The sculptors, painters and engravers no doubt drew on their first-hand experience of the world around them, including their knowledge of textiles. This provides an unparalleled contemporary account of the reality of ancient textiles. However, these carefully constructed images are not simple replicas or snapshots of daily life. Instead, the iconography draws on and selects elements from the contemporary world that would have been recognisable to their ancient audience and have reflected the perceptions, ideologies and ideas of the society in which they were produced. Observing the images today, it is possible to see how people at the time wanted to be seen and how they chose to present themselves. The way individuals were represented in funerary portraits, statues in their honour, or painted on walls of houses and tombs, is not necessarily the way they appeared in daily life. It can be assumed that faces and bodies were refined, and that textiles played their part in constructing a type of caricature. Consequently, representations are part reality, part wistful imaginings of a perfectly curated life, and part political message of social roles, ideals, and identities.[4]

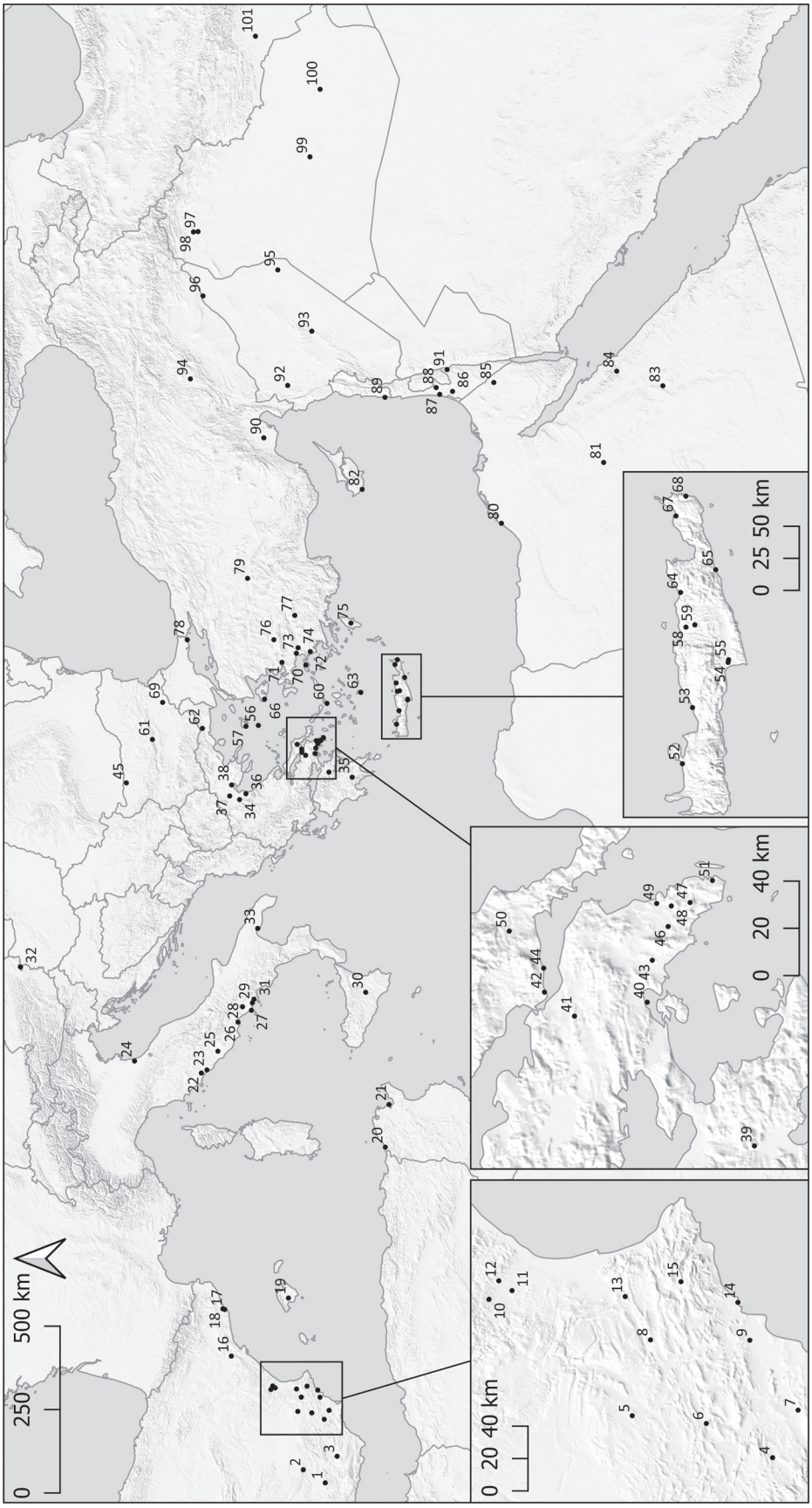
Textile production was a routine and important part of ancient Mediterranean activities. Although art historians have long postulated the lack of realism and objectiveness in depicting textiles in the iconography, this view cannot be accepted without qualification. In many cases, weaving utensils and fabrics are carefully represented, even if schematically. For these reasons, any study of textiles in iconography requires a full understanding of textiles and their production, the other types of evidence available, an appropriate methodology, attention to the context of the finds and a recognition of the level of analysis adopted. This volume addresses these issues.

What is a textile? Textiles and textile products, such as clothing, furnishings and equipment, though closely related, are distinct technologies. The word 'textile' derives from the Latin, *texere*, to weave, and specifically refers to fabrics woven on a loom.[5] The primary material of textiles is fibre, worked into yarns for weaving.[6] There are numerous materials closely related to textiles, such as braids, netting and basketry, which share the fibrous and yarn origins, yet are produced using different techniques. This volume's main focus is on textiles. In the ancient Mediterranean world, from the Bronze Age to the late Roman period (*c*. 1500 BCE–500 CE), textiles provided the raw material for a wide range of products. The most important of these was clothing, the technology of wrapping or tailoring garments to clothe the body and the focus of numerous anthologies and monographs.[7] Textiles were also prized for furnishing, and fundamental to large-scale equipment such as ships' sails, curtains, tents and awnings.[8] By re-examining already well-known objects in terms of their textiles, it is possible both to find fresh sources of data about textile production and use and to demonstrate the high importance of this industry for these early historic societies. As the chapters in this volume demonstrate, the reason so much is known about textiles in the ancient Mediterranean world is because of their plentiful representation in the iconography.

Iconography means, broadly, the study of representation in its many forms. It is an immediately accessible, but also deeply complex, information source about textiles. Reading images is not just a question of decoding a single meaning, since the interpretations of images change from context to context depending on the viewers and their expectations, including those of today's researchers. It is, for example, impossible to consider the Roman *toga* without bringing to mind the swirls of textiles on marble statues of adult, male Roman citizens.[9] Preserved textiles bear witness to the technology used to create this garment,[10] yet it is the iconography of the *toga* that demonstrates how these large textiles were worn on the body, their colour and the elevated status of those shown wearing them. At the same time, in iconography, the *toga* presents an idealised view of Roman citizens. Written sources establish that the *toga* was rarely worn outside formal contexts and that it was even parodied in comedies of the day.[11] As one of the most studied textiles in ancient Mediterranean iconography, the *toga* serves as a reminder both of the opportunities and the complexities of this source material.[12]

The question of how to interpret iconography has vexed scholars for decades and it is not always easy to find one's way within this complex field of analysis. A good starting point is with the multiple levels at which representation can be considered. In his classic text on iconography in art history, Erwin Panofsky identified three levels at which the representations of past societies can be approached.[13]

- The first level is a formal analysis of how shape, line and colour are used to represent objects and things. At this level, a particular textile is identified, its colour and its decoration, whether it be a tunic, pillow or shawl. Gender and age are established through bodily features. Particular types of looms, or the individual textile signs (*logograms*) found in scripts and on seals, can be recognised.
- The second level of analysis considers the conventional subject matter and identifies forms according to thematic groups. Here the focus is on the combination of formal attributes grouped around a recognisable theme. This type of analysis is essential for distinguishing deities from the portraits of people and for evaluating figures featuring in typical scenes of production, banqueting, certain popular myths or cult scenes.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- The third level is the intrinsic meaning or subject matter of the representation. These embed the wider societal meanings that stem from the socially constituted knowledge of the artisan working within their cultural milieu. This more sophisticated level of values is apparent in a number of ways: the competitive textile finery of the statues raised to deities and of those designed to elevate the social position of wealthy city dwellers; the ideology of gender in textile production and dress; and the significance of using textile motifs on seals and in scripts for administrative practices.

Many advances have been made in the study of iconography, not least in its application to textiles and dress in the ancient Mediterranean. These three levels of analysis can help disentangle the multi-faceted meanings that coexist within any one single representation.

Textiles in two and three dimensions

Iconographical representations of textiles are found in a wide range of objects. Different media provide contrasting insights into ancient textiles (Tab. 1.1).

Two-dimensional media, such as the wall-paintings and mosaics, and vase-paintings such as the white-ground *lekythoi*, provide information on the shape, colours, patterns of ancient textiles and textile products, while others such as coins and black- and red-figure vase-paintings carry mono- or bichrome depictions. The smaller and more schematic the images, the more selective their features, making it sometimes difficult to recognise the gender of a human figure, as characteristic elements can be ephemeral.[14] Due to their small size, textiles represented on seals have a rather cursory appearance. This is illustrated by Thaddeus Nelson (Chapter 4), who discusses the identification of a stringed object on Bronze Age seals, previously assumed to be lyres, but which may represent handlooms. Similarly, Agata Ulanowska (Chapter 2) demonstrates that the repetition of motifs associated with textiles across numerous seals provides a window into the textile concerns of those who made and used them. Bronze Age logograms (signs) in Aegean Linear scripts are equally challenging, given their small scale and primary purpose as text (Pierini, Chapter 3).

Since they are sculpted in the round, three-dimensional sculpture and figurines of men, women and deities offer more opportunities than two-dimensional images because they provide clearer information on how textiles were constructed, draped, used and worn – and who wore them.[15] Form and context enables Kelly Olson (Chapter 11) to identify fringed clothing on bronze sculpture and marble reliefs as well as on painted textiles and, from their context to suggest that their purpose was to ward off evil. The finely worked stone funerary reliefs from Palmyra provide sufficient details to allow Marta Żuchowska to compare the decorative textiles on the stones with preserved textiles

Fig. 1.2. Places mentioned in the book, alphabetically ordered: Agios Efstratios 5, Akrotiri 63, Alexandria 80, Ammoi 78, Aphrodisias 77, Archanes 59, Arslantepe 94, Ashdod 87, Asomatoi 62, Athens 43, Baza 3, Beni Hassan 81, Brauron 49, Cabecico del Tesoro 7, Capua 28, Carthage 21, Castellet de Bernabé 10, Chania / Khania 52, Cilicia (approx. centre of region) 90, Coimbra del Barranco Ancho 6, Coll del Moro 16, Collado de los Jardines 2, Cumae 27, Delos 60, Dura Europos 95, Ebla 92, Edeta 11, El Amarejo 5, El Cigarralejo 4, El Puntal de Llops 12, El Tossal de Sant Miquel 11, Elche 9, Eleusis 40, Ephesus 73, Eressos 66, Eretria 44, Euboea 50, Formiae 26, Gephyra 41, Golemata Mogila 45, Golyama Kosmatka 61, Hagia Triada 54, Herculaneum 29, Katerini 36, Kerameikos 43, Keratea 47, Knossos 58, Kuntillet 'Ajrud 85, Kontopigado Alimos 43, Koropi 46, l'Albufereta 14, La Algaida 19, La Bastida de les Alcusses 8, La Serreta 15, Laurion 51, Lefkandi 42, Los Villares 1, Lydia (approx. centre of region) 76, Magnesia 74, Malia 64, Mas Boscà 17, Masada 91, Merenda 48, Miletos 72, Mons Claudianus 84, Morgantina 30, Mycenae 39, Myrina 57, Myrtos Pyrgos 65, Nikaia 43, Palmyra 93, Paphos 82, Pella 37, Petras 67, Phaistos 55, Phrygia (approx. centre of region) 79, Pompeii 31, Puig Castellar 18, Ravenna 24, Rethymnon 53, Rhodes 75, Rome 25, Saetabis 13, Samos 70, Smyrna 71, Sopron 32, Sparta 35, Susa 101, Tabarka 20, Tanagra 41, Tar caves 99, Taranto 33, Tarquinia 23, Tel Haror 86, Tel Mozan 96, Tell Arpachiyah 97, Tell Batash 88, Tepe Gawra 98, Thebes 83, Thessaloniki 38, Tyre 89, Uruk 100, Vergina 34, Vulci 22, Xeste 63, Zakros 68, Zlatinitsa 69.

Places mentioned in the book, numerically ordered: 1 Los Villares, 2 Collado de los Jardines, 3 Baza, 4 El Cigarralejo, 5 El Amarejo, 6 Coimbra del Barranco Ancho, 7 Cabecico del Tesoro, 8 La Bastida de les Alcusses, 9 Elche, 10 Castellet de Bernabé, 11 Edeta and El Tossal de Sant Miquel, 12 El Puntal de Llops, 13 Saetabis, 14 l'Albufereta, 15 La Serreta, 16 Coll del Moro, 17 Mas Boscà, 18 Puig Castellar, 19 La Algaida, 20 Tabarka, 21 Carthage, 22 Vulci, 23 Tarquinia, 24 Ravenna, 25 Rome, 26 Formiae, 27 Cumae, 28 Capua, 29 Herculaneum, 30 Morgantina, 31 Pompeii, 32 Sopron, 33 Taranto, 34 Vergina, 35 Sparta, 36 Katerini, 37 Pella, 38 Thessaloniki, 39 Mycenae, 40 Eleusis, 41 Gephyra and Tanagra, 42 Lefkandi, 43 Athens, Kerameikos, Kontopigado Alimos, Nikaia, 44 Eretria, 45 Golemata Mogila, 46 Koropi, 47 Keratea, 48 Merenda, 49 Brauron, 50 Euboea, 51 Laurion, 52 Chania / Khania, 53 Rethymnon, 54 Hagia Triada, 55 Phaistos, 56 Agios Efstratios, 57 Myrina, 58 Knossos, 59 Archanes, 60 Delos, 61 Golyama Kosmatka, 62 Asomatoi, 63 Akrotiri and Xeste, 64 Malia, 65 Myrtos Pyrgos, 66 Eressos, 67 Petras, 68 Zakros, 69 Zlatinitsa, 70 Samos, 71 Smyrna, 72 Miletos, 73 Ephesus, 74 Magnesia, 75 Rhodes, 76 Lydia (approx. centre of region), 77 Aphrodisias, 78 Ammoi, 79 Phrygia (approx. centre of region), 80 Alexandria, 81 Beni Hassan, 82 Paphos, 83 Thebes, 84 Mons Claudianus, 85 Kuntillet 'Ajrud, 86 Tel Haror, 87 Ashdod, 88 Tell Batash, 89 Tyre, 90 Cilicia (approx. centre of region), 91 Masada, 92 Ebla, 93 Palmyra, 94 Arslantepe, 95 Dura Europos, 96 Tel Mozan, 97 Tell Arpachiyah, 98 Tepe Gawra, 99 Tar caves, 100 Uruk, 101 Susa. Map © Neil Erskine and Susanna Harris.

Table 1.1. Contrasting insights into textiles gained from iconographic, archaeological and written evidence.

Evidence	*Raw material*	*Yarn*	*Weave structure*	*Textile production process*	*Textile production and gender*	*Textiles and social identities*
Textile products in iconography	Compare features with preserved textiles.	Compare features with preserved textiles.	Features associated with specific weaving techniques.	N/A	N/A	Representation of textiles in use when associated with people and scenes.
Textile production in iconography	Representation of animal and plant resources.	Representation of yarn production (*e.g.* spinning techniques and utensils).	Representation of loom types.	Textile production scenes.	Textile production scenes with people.	Representation of people producing textiles.
Preserved textile fragments	Fibre analysis.	Yarn analysis.	Weave analysis.	Features in textile structure.	N/A	Depending on the context of finds.
Complete or near complete preserved textile products	Fibre analysis.	Yarn analysis.	Weave analysis.	Features in textile structure.	N/A	Depending on the context of finds.
Textiles in written sources	Description of raw material.	Description of yarn production.	N/A	Description of textile production (*e.g.* weaving, dye recipes etc.)	Description of people associated with textile production.	Description of how textiles were used and by whom (*e.g.* clothing, gifts, exchange, cult use etc.).

Evidence	*Size of textiles*	*Decoration of textiles*	*Colour of textiles*	*Textile use*	*Textile trade*	*Textile prices and economy*
Textile products in iconography	Estimated in textile use (*e.g.* clothing, furnishings, sails, gifts, tribute).	Visible patterns, textures, nuances and scientific analysis of pigments.	Visible colours and scientific analysis of pigments.	Representation of textiles in use (*e.g.* clothing, furnishings, cult offerings, sails, gifts, tribute).	Representation of shops or traders selling textile products.	N/A
Textile production in iconography	Textile production scenes (*e.g.* sizes of warping frames, looms etc.).	Textile production scenes (*e.g.* textile on loom, dyeing).	Representation of dye resources.	N/A	N/A	N/A
Preserved textile fragments	N/A	Preserved decorative techniques (*e.g.* embroidery, supplementary weft, appliqué etc.)	Visible colours and scientific analysis of dye stuffs.	Context of finds	Identification of imported fibres or techniques.	N/A
Complete or near complete preserved textile products	If sufficient is preserved, the original size can be determined.	Preserved decorative techniques (*e.g.* embroidery, supplementary weft, appliqué etc.)	Visible colours and scientific analysis of dye stuffs.	Context of finds	Identification of imported fibres or techniques.	N/A
Textiles in written sources	Description of textiles with indication of size.	Description of the decoration of textiles.	Description of the colour of textiles and dye recipes.	Descriptions of how textiles were used.	Descriptions of textile trade (*e.g.* imported/exported textile goods *etc*.).	Recording of prices of textile items (*e.g.* Diocletian's Edict of Maximum Prices).

(Chapter 12). Two- and three-dimensional images, no matter their size or dimension, all provide important information about scenes, patterns, textures and combinations; and offer varied insights into ancient textiles.

The act of representation in various forms is more than simply the use of different media: it is purposeful. Images have context. Monumental three-dimensional stone statues carved in stone, often marble, and painted in bright colours would always have been a significant undertaking in terms of both skill and resources. They were also weighty actors in the politics of display. The Athenian Parthenon in Athens, famous for its frieze, was built to compete with the magnificence of the temple of Zeus in Olympia.[16] The erection of monumental statues in Archaic Greece (8th–9th century BCE) was as much an artistic venture as a measure of achievement for aristocratic families.[17] In this volume, the context and purpose of architectural representation is exemplified by Magdalena Öhrman (Chapter 10): her focus is the weaving contest between Minerva and Arachne depicted in the friezes in the Forum Transitorium in Rome. Öhrman argues that the motif of virtuous textile work in this context offers an imperial response to an emerging stoic paradigm of uxorial loyalty while at the same time showcasing the economic value of strongly gendered traditional textile work amongst and beyond the elite. The repeated display of a loom-type rarely paralleled at the time creates a sustained focus on the potential economic output of female industriousness, expertise and technological development.

The chronology of the artefact, when it was made, displayed or possibly destroyed, are all significant factors in the interpretation of the textiles depicted on them. Textiles played a significant role in defining the identity and status of the subject wearing them; and this role was a reflection of contemporary attitudes of the day. Harris, Martin, Andrianou, Basso Rial, Brøns, Olson, Żuchowska and Place all discuss the significance of textile products, whether clothing or furnishings, in relaying information to contemporary audiences about the identity of people or deities (Chapters 5, 6, 7, 8, 9, 11, 12, 13). Marta Żuchowska explores the exaggerated opulence of textiles in the funerary reliefs of Palmyra by comparing them to preserved textiles (Chapter 12). The two-dimensional mosaics and paintings on the walls and floors of grand villas and rock-cut tombs across the Mediterranean were statements of a shared culture and allegiance within the social environment of their day. These themes are developed by Amy Place from her study of the Roman mosaics in Carthage and Tabarka (Chapter 13), and by Dimitra Andrianou's attention to the textiles in the lavish banquet (*symposium*) scenes (Chapter 7). The choice of textile motifs in writing systems and on seals speaks to the significance of textile production to the daily management of estate and palace resources (Ulanowska, Chapter 2; Pierini, Chapter 3). Statues in particular are visibly prominent and this makes them especially vulnerable to changing politics, varying fashions and cultural preferences. The reason that the polychromy still survives on the statues of young women (*korai*) of the Acropolis (Harris, Chapter 5; Martin, Chapter 6) is that the statues were destroyed when Athens was sacked by the Persians in 480 and 479 BCE and then reused to fill an area of sloping ground. In this instance, this destructive act, together with the burial environment, preserved the pigments.[18]

The evolution of iconography[19] leads to a consideration of the influence of style on representation. Greek stone sculpture changes dramatically over time in the way it represents textiles. Early Archaic sculptors, for example, experimented with portraying textiles first as solid masses and then, in the Late Archaic style of the *korai* from the Athenian Acropolis, as garments with the folds and zigzag swallowtail folds typical of the time (Martin, Harris, Chapters 5 and 6). In Early Classical sculpture came a dramatic change: by around 500 BCE, Greek sculptors were breaking away from the rigid rules of Archaic conceptual art and beginning to reproduce more naturalistic representations of real life. Although still stylistically idealised, the textiles became much more softly modelled and realistic looking. During the Late Classical period, came further experimentation both with more natural-looking textiles and with other methods of representing textiles in relation to the bodies they were used to cover. Since the women could not be shown naked, the sculptors found inventive ways to reveal the underlying shape of the female body by using diaphanous textiles. An example of this is the temple of Athena Nike on the Acropolis (410 BCE), where the parapet surrounding the temple includes figures of *Nikai* adjusting her sandals (Fig. 1.3).[20] Here, the textiles cling to the contours of the body, making the figure look almost naked and resulting in what has been described as the 'wet-look'-style.[21] These artistic changes raise the question of how accurately these might reflect the appearance of the textiles worn at the time. It appears that the changing stylistic representations do not reflect exactly how people dressed but rather a certain style popular in the artistic conventions at the time. As a result, when looking at iconography as evidence for dress, one needs to bear in mind the artistic style of the time as well as the intentions of the artist.[22]

Style and ideology also influence depictions of real people. While it is probable, for example, that a Roman portrait shows a particular individual wearing clothing that she or he actually wore, those statues with portrait heads usually show costumes in a highly idealised form.[23] The depiction of this clothing, rather than being true to everyday dress, might instead be intended to reflect the person's role as, for example, a priest/priestess, magistrate, matron or young married woman. Moreover, many statues do not represent real people at all, but rather divinities, who typically might be clad in clothing that would have been inappropriate for respectable men and women to wear.[24]

Fig. 1.3. Slab from the parapet of the Temple of Athena Nike. Acropolis Museum, no. 973. © Acropolis Museum, 2018. Photo: Yiannis Koulelis.

If representations of textiles are considered not in isolation but in the context of their setting, this broader perspective can open the door to sociocultural interpretations which enrich the understanding of ancient textiles and the societies to which they belonged.[25] Such a perspective involves taking into account the type of artefact on which the textile appears, its function, its manufacturing process, when and where it was made, its potential audience, its purpose and who it represents. Despite the inevitable limitations that come with any attempt to interpret ancient material, the two- and three-dimensional iconography represents some of the best evidence available for the appearance and significance of ancient Mediterranean textiles.

Polychromy: The fourth dimension

Ancient sculptures, whether in white marble, limestone or terracotta, were originally painted in a spectrum of colours, a phenomenon referred to as 'polychromy', a word that stems from the Greek words '*poly*' (many) and '*chroma*' (colour), *i.e.* 'many-coloured'. Unfortunately, the original colours of ancient sculptures have usually – like the textiles they represent – disappeared so that at first glance they appear entirely white. This means that the artworks are in a sense only 'skeletons' of what they once were and as a result are far from representative of the way ancient societies experienced the same objects. This leads modern observers to perceive the artwork, somewhat unhelpfully, as over-clinical (Fig. 1.4). As a result it has been argued that colour represents a fourth dimension of ancient sculpture.[26] The loss of colour means that a substantial amount of information about the textiles represented has also been lost.

Interdisciplinary research into the ancient polychromy of these sculptures has demonstrated how stone statues that are apparently white can reveal essential and surprising information about the decoration and colours of ancient textiles. Among the most promising methods of analysis in the field is multi-spectral imaging (MSI), particularly the method of Visible Induced Luminescence (VIL) imaging, which can detect the ancient synthetic pigment Egyptian blue in quantities that are no longer visible to the naked eye.[27] This technique has proved invaluable in investigating the original decoration of ancient sculptured garments. It can reveal colour decoration, such as patterns or borders, which can no longer be seen, through the fluorescence of pigment traces. The Roman marble sculpture of the so-called Sciarra Amazon, dated to *c*. 150 CE, whose garment was originally decorated with a painted border of Egyptian blue, is a good example of this (Fig. 1.5).[28] This area of research is still relatively new, though it has expanded during the past two decades. The result has been that a growing number of artefacts have been examined and reveal their original splendour.[29] Polychromy techniques demand specialised skills and specific equipment and there are still relatively few research teams worldwide able to carry out this research. As a result, information about the textile colours on the statues remains limited and can usually only be found in focused, published studies and specialised research networks.[30] Moreover, the emphasis in many studies has tended to be solely on the polychromy, *i.e.* the identification of pigments and binders, together with the painting techniques, rather than on the textiles they represent. This line of research has enormous potential for the study of ancient textiles in the future.

The polychromy programme carried out by the research team at the Liebieghaus Skulpturensammlung in Frankfurt, directed by Vinzenz Brinkmann and Ulrike Koch-Brinkmann, has been ground-breaking. The team were among the first to analyse ancient polychromy and have examined an impressive number of archaeological artefacts, including the *korai* from the Athenian Acropolis and the famous Phrasikleia;[31] this work has provided original insights into the techniques and materials used to produce the garments. Their worldwide travelling exhibition, *Bunte Götter* (Gods in Colour), has brought the knowledge of ancient polychromy to a wider audience. The inclusion of colour reconstructions in particular – physical as well as digital – has been useful in

Fig. 1.4. View of one of the galleries of Greek and Roman art at the Ny Carlsberg Glyptotek, Copenhagen. Photo: A.C. Gonzales.

Fig. 1.5. A. The Sciarra amazon, c. *150 CE. Ny Carlsberg Glyptotek, IN 1568. B. VIL-image of the garment, white fluorescence shows the distribution of the pigment Egyptian blue. Photos: M.L. Sargent.*

Fig. 1.6. A. 'The Beauty of Palmyra'. Palmyrene funerary portrait, c. *190–210 CE. Ny Carlsberg Glyptotek, inv. no. IN 2795. B. Colour reconstruction of the original polychromy. © C. Brøns.*

overcoming the difficulty of showing people what ancient textiles really looked like. Such reconstructions are not, of course, without their limitations since they cannot represent a definitive and certain 'truth' about how the sculpture or the garments depicted once looked in real life: their reconstructions inevitably reflect ideas about the past which, as with all archaeological interpretation, are also reflections of the times in which they were created.[32] Nevertheless, they carry a huge potential in disseminating knowledge about the colours and possible appearance of ancient textiles. As an example, a recent reconstruction of the original colours of a funerary portrait from Palmyra illustrates how different the artwork appears and particularly how much clearer and more 'readable' the individual garments are when colour is added (Fig. 1.6).[33]

The research into the polychromy of ancient sculpture has begun to influence the field of textile research.[34] This is reflected by the papers by Martin and Harris in this volume, which both include colour reconstructions of Archaic sculptures. Martin (Chapter 6) explores the ways in which colour, specifically the saffron yellow textile known as the *krokotos*, was integral to the cult of Artemis Brauronia, both at her sanctuary site in Brauron and on the Athenian Acropolis. The evidence includes the colour reconstruction by Brinkmann and Koch-Brinkmann of the so-called 'Peplos Kore'.[35] Harris (Chapter 5) discusses the startling quality and quantity of textiles revealed by representations of clothing on statues of young women in 6th-century BCE Greece, such as the famous Phrasikleia *kore*, by approaching the textiles on statues in the light of the fabrics recovered from archaeological sites. In Chapter 8, Basso Rial introduces an Iberian polychrome relief from l'Albuferet dated between the 4th and 3rd century BCE, showing a woman in brightly coloured clothing and jewellery holding a distaff and spindle, opposite a man in white tunic and two-tone mantle with a spear (Chapter 8). Brøns (Chapter 9) centres on ancient polychromy, and specifically on the evidence for golden textiles in Greek and Roman art from the Archaic period to Late Antiquity (5th century BCE to 5th century CE). Brøns shows how an examination of the original polychromy offers compelling evidence about how these garments actually looked and were worn (and by whom), leading to a significantly better understanding of ancient dress and its versatility. No doubt future analysis will provide further insights into how the textiles originally appeared and into how their iconography can best be interpreted.

Combining sources

In this volume, several authors use evidence from more than one source to complement that of textile iconography and build a fuller picture. In 'The Fashion System', Barthes distinguished between three garments that exist in society: real clothing, image-clothing, and written clothing.[36] This approach separates out the actual clothing itself, the clothing known through images and the clothing communicated

through writing. The same distinction can be applied to ancient textiles and provides a helpful reminder that these sources exist independently of each other and have their own trajectories.[37] How can they best be reconciled?

Preserved textiles and textiles in iconography

Thanks to advances in textile research over the last few decades, there are now plenty of high-quality published analyses of archaeological textiles. This means that it is possible to gain an understanding of textiles, textile technology and regional textile traditions across the Mediterranean.[38] This in turn offers opportunities to compare known textile technologies with textiles depictions.

Preserved textiles from archaeological contexts provide vital evidence for the fibre, yarn and weave structure technology, dyes and appearance of textiles in the ancient world. Rarely, however, are these surviving textiles sufficiently well preserved to provide evidence for completed or near completed textile products such as clothing, sails, furnishing or other products.[39] The context of the textiles, if known, can supplement this data with information about gender and the social associations of any associated textile finds.[40] By contrast, iconography can provide a wealth of data about textile use and, particularly, about the gender, social and cultural identity of those who used them, even though it can shed little light on details such as weave structure, the fibre used, dyestuff and the like. Establishing such characteristics has to rely instead on comparisons made with known textiles (Tab.1.1).

Images of textile production scenes are especially helpful. Representations of weaving techniques may corroborate evidence from textile tools, or provide completely new data on techniques that leave no archaeological trace. The archaeological evidence for textile production consists mainly of excavated spindle whorls and loom weights,[41] together with the indirect evidence collected from the technical analysis of the structure of any preserved textile fragments. The iconographic evidence, on the other hand, enables the reconstruction of spinning methods, the types of looms and, in many cases, the association of gender and social status with these activities. These subjects are addressed by the authors in this volume. Öhrman (Chapter 10) illustrates how the frieze of the Forum Transitorium, Rome, bears witness to technological developments of weaving in Roman textile production by showing the use of the two-beam loom, which was operated differently to the more familiar warp-weighted loom. Similarly, Ricardo Basso Rial (Chapter 8) addresses the symbolic content of Iberian iconography whereby only high-ranking women are presented together with the tools of textile production.[42] The importance of textiles and textile implements in these images is associated with the symbology of gender, age, social status and rites of passage. Basso Rial argues that such representations coincide with the intensification of household production. In addition, their elitist character raises questions about their religious and political purposes as well as their audience, an important point to consider in the study of representations such as these.

Wherever a comparison of archaeological textiles with their iconographic representations is possible, it demonstrates that many of the textiles and clothing in the iconography have close parallels in the archaeological material. The differences between the archaeological textiles and their illustration are often minor, in many cases resulting from the inevitable differences in the materials and techniques used to produce them, or from the iconographic code which could over-emphasise some features to make their message more visible. There are examples of realistic and accurate depictions of textiles which are known from comparison with textiles surviving in the archaeological evidence. For example, the representation of textiles used to make garments of the Archaic *korai* (young women) can be closely correlated with contemporary textiles and woven bands recovered archaeologically (Harris, Chapter 5). Similarly, the resplendent gold fabrics on the Tanagra figurines are not simply gilt ornaments; they appear to represent actual textiles known from archaeological contexts (Brøns, Chapter 9). The rare cases in which archaeological textiles can be compared with the corpus of iconographic depictions from the same location, such as at Dura Europos, or Palmyra, demonstrate that these two types of sources can provide clusters of closely overlapping data, as is explored in the chapter by Marta Żuchowska (Chapter 12).

Written textiles and textiles in iconography

Textiles appear in all types and genres of written sources, including epigraphy (such as inventories, laws and decrees) and literary sources (such as historical texts, geographical descriptions, lexical works, drama, poetry, prose, epigrams and medical texts), producing an extensive dictionary of textile and clothing terms.[43] Written sources, whether literary or epigraphical, have to a large extent dominated the field of ancient Mediterranean textile research, particularly in terms of dress. In such studies, the literary sources are usually the point of departure for any study with the iconography used only as 'supplementary material'. This practice is fortunately changing as more studies now recognise the unique contribution that textile iconography can make.

The language of textiles demonstrates the prolific, varied world of textiles in antiquity. To take one example, Diocletian's 'Edict of Maximum Prices' mentions over 150 textile and garment types and their prices,[44] while the Brauron Clothing catalogues record a wealth of textiles and garments dedicated to the goddess Artemis.[45] The written sources provide the Greek terms *chiton, peplos, himation* and *chlamys*. From Latin comes the Roman wardrobe of *toga* for men; and the *tunica, stola* and *palla* for women.[46] Written sources also provide accounts of textile production,

trade, gifts and exchange, organised production regimes, dye recipes and descriptions of textiles. They place textiles at the very centre of the lively daily life of the ancient men, women and children, and emperors and slaves, that made and used them (Tab. 1.1). In Homer, aristocratic women such as Penelope or Helen and their servants are described spinning yarn and weaving textiles as glorious gifts and funerary offerings.[47] Through Old Babylonian letters, it is possible to eavesdrop on the international exchange of vast quantities of luxury textiles.[48] In this volume, Dimitra Andrianou (Chapter 7) quotes from the 3rd-century BCE writer, Theocritus, who describes two women marvelling at some furnishing textiles. Andrianou uses this as a starting point to demonstrate how interior furnishings in Greece and Rome were intended to be admired, and endowed their owners with both beautiful surroundings and status. These stories, plays and letters provide incomparable evidence of the individuals and social relationships that would otherwise be all but invisible in the archaeological record.

The abundance of references to textiles in texts is, however, a mixed blessing: it is a challenge to relate words to specific textiles or textile products. Clothing, one of the major ways in which textiles appear in the iconography, is a case in point.[49]As argued by Mary Harlow and Marie-Louise Nosch, it is not easy for researchers to match a garment represented in the iconography with its ancient name. A well-known example is the so-called Peplos Kore from the Athenian Acropolis. A closer examination of the polychromy evidence reveals that this figure is depicted wearing not a *peplos* but a *chiton*, then an *ependytes*, then a long yellow vest and finally a short yellow cape.[50] Numerous textile terms, moreover, have not yet been identified in the iconography. For example, the term *mitra* appears to have been used to describe a range of very different items: it can denote a band, a belt or girdle,[51] a kind of headdress[52] and a 'victor's chaplet,[53] as well as describe a piece of armour in the form of a metal guard worn around the waist.[54] Objects labelled as *mitra* can, therefore, come in many shapes and sizes and can be worn in different ways around various parts of the body, making it hard to identify in the iconography. This illustrates the difficulty of matching text with images.

The use of Greek garment terms such as *peplos*, *chiton*, *chlamys* and *himation*, or the Latin *lanificium* for wool working, is standard practice among researchers today. These descriptors are matched to textiles and garments throughout the Mediterranean both confidently and without question, and without any consideration as to how these objects might have looked – or whether people in the ancient world would have used the same terms for the textiles or practices that are accepted today. In many ways, these modern-day assumptions serve a useful purpose. From the Bronze Age onwards, the Mediterranean was an inter-connected cultural world, with intense trade, exchange and substantive movements of peoples. As Mireille Lee has argued, it may be impossible and perhaps even undesirable to create a new system of dress terminology. Nevertheless, it is important to note that many words for ancient garments have been erroneously identified and applied too widely – and are used with a spurious authority given that their use is a product only of scholarship.[55] Established terms are used throughout this volume and their accepted meaning is defined in the Glossary. In her analysis of the mosaics from two Roman villas in Tunisia, north Africa, Amy Place (Chapter 13) refers to the *tunica strictoria* (a man's long-sleeved tunic) and textile production activities *lanificium* (wool working). The use of these terms enables a fruitful comparison to be made across the Mediterranean and highlights the hybridity of the later Roman Empire while at the same time allowing for the likelihood of contemporary regional and local variations.

An issue when juxtaposing written sources and iconography is that the iconography of dress may appear to be fairly standardised and represent limited modes of dress, in contrast to the much more varied terminology found in the written sources.[56] The relatively few garment types recognised in iconography appear to have produced the common perception that Greek dress consisted primarily of the *chiton*, *peplos*, *himation* and *chlamys*, and that the Roman wardrobe primarily of the *toga* for men, and the tunic, the *stola* and the *palla* for women.[57] This narrow view risks trying to map the evidence on to a pattern of preconceived ideas of ancient dress based on too few garment types. It is here that studies into iconographic detail can provide a balance. This is illustrated by Kelly Olson (Chapter 11) in her study of fringed garments in Roman art. She shows how a closer inspection of representations in art can reveal a far greater variety of garment decoration. This reflects how artistic representations of dress were potentially just as varied and nuanced as dress terminology.

Since written texts were always written for a specific purpose, the information they provide on the appearance of textiles is often limited to a brief mention of only one feature, for example, their colour. As an example of this, written sources occasionally describe textiles using the term *poikilos* which (in relation to textiles) is usually translated as 'many-coloured', 'wrought in various colours' or 'of woven or embroidered stuffs'.[58] Although this demonstrates that the textile in question was coloured or decorated, it provides no evidence as to its exact appearance. Similarly, the Greek garment *krokotos* is only known through references in written sources where it is defined exclusively by its saffron colour. It appears to have been reserved for women, but nothing is known about what it looked like besides its colour: was it a type of tunic, a mantle or something different? This elusive garment type is explored by Daphne Martin (Chapter 6) who, by combining evidence from literary, epigraphic, visual and archaeological evidence, identifies a scene of the dedication

of a *krokotos* on a white-ground cup from Brauron. Although it is impossible to discern the shape of the garment, this illustration provides significant information about how such scenes might be seen as a substitution for, or supplement to, the dedication of actual woven cloth as evidenced in the written sources, thus neatly linking and combining the evidence from written sources with the iconography.

These examples further illustrate the inherent difficulty in translating ancient descriptive terms into modern- day English. In some cases, the two merge, as is the case with logograms. This is illustrated by the paper by Pierini (Chapter 3) which explores the iconography of ancient textiles through a palaeographic analysis of the logogram *TELA*, which was used to represent textiles in the Bronze Age Aegean scripts.

Textile iconography: A bright future

Scholarship on ancient textiles is on the rise. Building on foundations from the late 1950s onwards,[59] the past two decades have seen the field of textile research expand and gain momentum in international research settings; and it has received growing attention in museums worldwide. Networks and societies focusing on ancient textiles have sparked research into, and the recognition of, ancient textiles and promoted this field of investigation. For example, the French society *Centre International d'Etude des Textiles Anciens* (CIETA), was established in 1954;[60] the Textile Society of America was established in 1987;[61] and the Danish National Research Foundation's Centre for Textile Research (CTR) in Copenhagen has recently celebrated its 20-year jubilee. Among some of the time-limited international textile research networks are: DressID (2007–2012), focusing on Roman textiles and dress; PROCON (Production and Consumption) on textile production and consumption in Mediterranean Europe from 1000–500 BCE (2013–2018)[62] and ATOM (Ancient Textiles from the Orient to the Mediterranean) (2015–2018). The latest, the international network Euroweb (COST), established in 2020, brings together textile scholars from across Europe.[63] These, and other projects, have invigorated textile research, bringing new researchers to the field, stimulating developments in methodology and expanding the quantity and quality of analyses and publications.[64] Nevertheless, despite these many advances in the study of textiles in ancient iconography, there continue to be challenges, some of which arise because the textile evidence from the ancient world is fragile and seldom found intact.

Many artworks present signs of damage and significant deterioration, while others are only preserved in a fragmentary state. Exposure to the elements and human contact can cause an artefact to fade or even change. This palimpsest of action has an impact. For example, some pigments may change colour with time or due to certain environmental conditions, making it difficult to identify the pigments used with any degree of certainty.[65] This is the case with ochre, a commonly used earth pigment, which is sensitive to oxidation and hydration. Yellow ochre can therefore be turned red by heating the goethite in the ochre; this converts it to hematite, which is red. Evidence for such colour changes in ochre comes from several ancient contexts such as the wall-paintings at Pompeii and Herculaneum, where the yellow ochre used for the paintings turned red due to the eruption of Vesuvius.[66] In other instances, as highlighted by Hughes, dubious conservation practices of the 18th and 19th centuries have altered the compositions of ancient wall-paintings.[67] Among these are many of the Minoan wall-paintings or the painted Mycenaean *larnakes* (a small close coffin or urn) (mentioned in Pierini, Chapter 3), which have been so heavily restored that their original colours and motifs are now difficult to identify.

Another barrier to the study of textiles in ancient iconography is the difficulty of accessing some of the artefacts themselves. Records of many of the artefacts in collections worldwide remain unpublished or, when they are, often lack colour calibrated images. Fragments of statues and ceramics are especially prone to languishing unpublished and unknown. In addition, not all artefacts in museum collections are on display. And even when they are exhibited, it is not always possible to study them in the necessary detail. This means that access can be restricted to photographs and drawings and is dependent upon the existence of accurate colour images. This reliance on published sources, while no doubt essential for accessibility, can distort research results.

Perhaps the greatest challenge to the study of textiles in iconography is the persistent questioning of its reliability and relevance. However, its methodology and its discoveries need be neither unreliable nor irrelevant provided certain conditions are met: sufficient attention to the medium of construction; robust methods of analysis; appropriate comparison with other sources of evidence; and a critical awareness of the relationship between evidence, cultural context and interpretation. It is the intention of this volume to show that, provided these criteria are met, textiles in iconography have an important contribution to make both to the history of textiles and, importantly, to the history of everyday life in the ancient Mediterranean.

Notes

1 Horden and Purcell (2000); Broodbank (2013, 445–593).
2 With the exception of Egypt where textiles are preserved in arid conditions and rock-cut tombs. For example, Kemp and Vogelsang-Eastwood (2001); Pritchard (2006).
3 For an excellent exploration of the realism or otherwise of Roman clothing, see Croom (2000, 11–15).
4 *E.g*. Rothe (2009); Paetz Gen Schieck (2012); Drougou (2018); Harlow *et al*. (2020).

5 Barber (1991, 5). Textiles can be described as 'a web of interlaced threads produced on a loom' (Good 2001, 211).
6 Collier *et al*. (2009, 15).
7 *E.g.* Bonfante (1975); Sebesta and Bonfante (2001); Llewellyn-Jones (2003); Cleland *et al*. (2005); Olson (2008); Harlow and Nosch (2014); Harris and Douny (2014); Lee (2015); Cifarelli and Gawlinski (2017); Harlow (2017); Batten and Olson (2021).
8 *E.g*. Andrianou (2006); Stephenson (2014); Nosch (2015); Spantidaki (2018); Dimova *et al.* (2021).
9 Much has been written about the Roman *toga*, including Goette (1989); Vout (1996); Stone (2001); Sebesta (2005); Goette (2013); Tellenbach *et al.* (2013); Brøns and Skovmøller (2017); Hildebrandt and Demant (2018); Rothe (2020).
10 *E.g.* Granger-Taylor (1982) and (1987).
11 Harlow (2018).
12 Bérard and Durand (1989, 23–38); Ekroth (2011, 1–12); Brøns (2016, 13–14; 2020, 318–319).
13 Panofsky (1955).
14 Mannering (2017).
15 Bonfante (2001, 3); Davies (2020, 53).
16 Osbourne (1998, 174–184).
17 Duploy (2006, 185–210).
18 Richter (1968, 6).
19 Evolutions = change through time.
20 Acropolis Museum, no. 973.
21 Davies (2020, 61). Another example is the *peplos* (as opposed to the *chiton*), which during the Classical period was rendered in art, but in real life appears to have been old-fashioned. See also Davies (2002) for the artistic representations of the Herculaneum women.
22 Davies (2020, 60, 65).
23 Croom (2000, 11–13); Paetz Gen Schieck (2012); Davies (2020, 65).
24 Davies (2020, 65).
25 Bundrick (2020, 120).
26 Liverani (2004).
27 The method was developed in 2009 at the British Museum. See Verri (2009a); Verri *et al*. (2014; 2009b); Skovmøller *et al.* (2016); Dyer and Newman (2020).
28 Ny Carlsberg Glyptotek, inv. no. IN. 1568, *c.* 150 CE. See Sargent and Therkildsen (2010); Skovmøller *et al.* (2016).
29 See *e.g.* Liverani (2004); Brinkmann *et al*. (2008); Østergaard and Nielsen (2014); Bracci *et al*. (2018); Jockey (2018); Skovmøller (2020); Svoboda and Cartwright (2020).
30 For example, see the homepages for 'The International Roundtable on Polychromy in Ancient Sculpture and Architecture', www.polychromyroundtable.com (accessed 30 September 2021); the polychromy research carried out at the Ny Carlsberg Glyptotek, www.trackingcolour.com (accessed 30 September 2021); and the APPEAR network, focusing on mummy portraits, www.getty.edu/museum/conservation/APPEAR/index.html (accessed July 2021).
31 See *e.g.* the catalogues for the travelling exhibition *Bunte Götter*, *e.g*. Brinkmann *et al*. (2017); Brinkmann and Koch-Brinkmann (2020). See also Harris, this volume.
32 Hedegaard and Brøns (2020). See also Zimmer (2016).
33 Brøns (2020).
34 Due to the nature of the material so far examined in polychromy research – which are most often representations of the human form – most information is on garments. However, polychromy can also inform on textiles in other capacities, which is wonderfully illustrated by the polychrome evidence of the so-called *Aula del Colosso* at the Forum of Augustus in Rome, which was decorated with a colourful painting of a huge tapestry-like wall-hanging. Ungaro (2007); Ungaro and Vitali (2007).
35 Brinkman (2004).
36 Barthes (1990, 3–5).
37 For approach to object trajectories and itineraries, see Hahn and Weiss (2013).
38 *E.g*. Granger-Taylor (1987); Schmidt-Colinet *et al*. (2000); Kemp and Vogelsang-Eastwood (2001); Jenkins (2003); Pritchard (2006); Gleba and Mannering (2012); Granger-Taylor (2012); Spantidaki and Moulherat (2012); Wild *et al*. (2014); Spantidaki (2016); Gleba (2017); Bender Jørgensen (2018).
39 *E.g.* fragments of sails, Murcia, Spain (Alfaro 1992) and Verucchio, Italy (Stauffer and Ræder Knudsen 2013, Spantidaki 2018); the clothing from Lefkandia, Greece (Margariti and Spantidaki 2020).
40 *E.g.* Meyers (2013).
41 For advances in these methods, see Andersson Strand and Nosch (2015).
42 As was the case for similar representations in Greek, Etruscan and Roman iconography.
43 Harlow and Nosch (2014, 14).
44 Harlow and Nosch (2014, 15).
45 Cleland (2005).
46 Clothing terms are defined in the indispensable volume by Cleland *et al*. (2007).
47 *E.g.* Lyons (2003).
48 Horowitz and Wasserman (2000).
49 The A to Z of Greek and Roman Dress is an invaluable companion to this topic, Cleland *et al.* (2007).
50 Koch-Brinkmann *et al*. (2014, 126–129, 136–137).
51 LSJ *s.v. mitra*. *E.g.* Ap' Rhod. *Argon.* 1.288; 3.867.
52 *E.g.* Hdt. 1.195; 7.90; Plut. *Mor.* 2.304c.
53 *E.g.* Pind. *Ol.* 9.84.
54 Hom. *Il.* 4.137, 187, 216, 5.857.
55 Lee (2004, 221, 224).
56 Harlow and Nosch (2014, 12).
57 For the costume of Roman women, see *e.g.* Sebesta (2001a, 2001b).
58 LSJ *s.v. poikilos*. *E.g.* Homer *Il.* 5.735, 14.215; Aeschylos *Ag.* 923.
59 Harris (2019, 211–212).
60 www.cieta.fr (accessed 30 September 2021).
61 www.textilesocietyofamerica.org (accessed 30 September 2021).
62 PROCON/Department of Archaeology (www.cam.ac.uk) (accessed 30 September 2021).
63 COST Europe Through Textiles: Network for an integrated and interdisciplinary Humanities. COST is a European Collaboration in Science and Technology.
64 Including The Ancient Textile Series, of which this book is Volume 38.

65 *E.g.* Brøns (2020).
66 Faivre (2016, 560); Brøns (2020, 320).
67 Hughes (2021, 126).

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Chapter 2

Textile production in Aegean glyptic: Interpreting small-scale representations on seals and sealings from Bronze Age Greece

Agata Ulanowska

Abstract

This paper explores textile production-related iconography on seals from Bronze Age Greece. Thirteen motifs related to textile production are recognised in the imagery. These range from the flax plant and the woolly animals to fibre combing, purple dyeing, spinning and weaving using loom weights, and perhaps the comb and rigid heddle, to finished textiles and bands. All these processes and tools are symbolically interwoven in the figure of the spider, a frequent motif in the Aegean glyptic. New motif identifications are proposed which suggest that textile production and the material culture related to it, constituted an important semantic reference reflected in the imagery of seals, especially on Crete in the Middle Bronze Age.

Introduction

For over 100 years, Aegean seals have provided a valuable source of information about Bronze Age Greece. Intensive research has been undertaken into the use of these seals and their role in administrative practices, their symbolic and talismanic function and their remarkable iconography.[1] However, the many and varied relationships between textiles and textile production, and seals and sealing practices, have not, so far, been investigated in detail.[2] These relationships are revealed by three main types of evidence: the seal-impressed textile tools; the use of textile products in sealing practices revealed by the imprints of threads and fabrics on the undersides of clay sealings; and the imagery on the seals themselves. It is the latter that forms the focus of this paper which presents a new set of thematic interpretations of their iconography.

In-depth studies of textile technology in Bronze Age Greece[3] have enabled the iconography of Aegean glyptic to become a potentially more valuable source for understanding textiles and textile production. This iconography can provisionally be grouped into a number of categories: references to fabrics (for example costumes and cloth offerings);[4] woolly animals (for example sheep and goats);[5] moths as potential producers of wild silk;[6] textile tools;[7] and references that have a symbolic meaning, such as spiders.[8] This paper examines an even larger than usual range of motifs which appear consistently in the Aegean seal imagery derived from the practicalities of textile making. It focuses on the rich, plentiful and sometimes unique imagery most frequently found on the MM (Middle Minoan) seals from Crete. The textile production motifs and themes often appear on three-sided prisms of soft stone of this period.[9] (see Tab. 2.1). It begins by describing these seals and then identifies six distinct stages in textile production before detailing and discussing the various ways in which these stages may be represented on seals and sealing.

Three-sided prisms of soft stone from Middle Minoan Crete

Three-sided soft stone prisms were produced and distributed in central-eastern and eastern Crete from *c.* MM I to LM IA (Middle Minoan I to Late Minoan IA, 2100–1500 BCE) and particularly in MM II (Middle Minoan II, 1800–1650 BCE) when a prominent production centre at Malia (*Atelier des sceaux*, Quartier Mu) flourished.[10] Prisms form the largest surviving group of MM seals, represented today by over 600 preserved examples.[11] The largest style sub-group within

Table 2.1. Textile production-related motifs on Aegean seals in the Textiles and Seals database, including referents to Cretan Hieroglyphic script signs (CH). The number of motifs with an uncertain identification is given in brackets, e.g. *'49(2)' means that 49 seals with a* 'flax' *motif are recorded on one or more seal faces, including two examples with uncertain identification.*

Motifs	*General number of seals*	*MBA seals from Crete*	*CH sign in CHIC*	*Number of seals with motif used in CH inscription*	*Pre-existing identifications*[1]	*Graphic homogeneity*	*Distinct characteristics, features of functional importance, possible technical gestures*
'Flax'	49(2)	48(2)	031	45(1)	Unspecific plant, plant with three branches, shamrock	Yes	High stem with narrow, lanceolate lateral leaves (from 2 to 11), crowned by 3 twigs ending with small blobs or circles that resemble seed pods.
'Woolly animals'	283(203)	145(37)	–	–	Goat, *agrimi*, sheep	No	Sheep: lateral spiral horns curved downwards, head in profile with a bump, short or long tail kept down, occasionally mane and fleece shown at the neck and chest. Goats and *agrimia*: slightly curved horns, possibly with ridges or fluting, growing out from one spot, small beards, short upwards tails. Goats: specific shape of udders and teats.
– 'Sheep'	99(37)	19(5)				No	
– 'Goat'	57(34)	35(20)				No	
– 'Woolly animal head in profile'	57	49	016	7		No	
'Silk moth'	14	–	–	–	Butterfly	Yes	Wings with single large circles resembling *Saturnia pyri* silk moths.
'Comb'	41(31)	40(30)	–	5(3)	Saw branch, unidentified tool	No	Elongated rectangular or slightly convex object with teeth at one side. Depictions of human figure holding such object provided the basis for the identification (*e.g.* CMS II,2 102a; VII 15a). Holding a comb with one hand and a standing position may allude to use of weaving combs. Sitting may allude to wool combing.
– 'Comber'	13(5)	13(5)	–	–			
'Spindle with whorl'	27(9)	24(8)	050 062 063	16(4)	Lance/dart, peg, mace, sceptre, spear, dot with two tips, dots with outgoing elements	Yes for CHIC 063 and 'dot with two tips'	Elongated form with sharp ends may allude to a shaft, while a circular element in the middle or at one end of the shaft resembles a spindle whorl (CMS II,8 86). An additional blob can be seen as skeins of fibres prepared for spinning. Depictions of human figure holding a spear head downwards are identified as a possible *'spinner'* motif.
– 'Spinner'	5	5	–	5(2)			
'Murex shell'	7(3)	5(2)	–	1	Triton shell, murex shell	No	Sculptured shell with body whorls and spines.

1 After Evans (1909; 1958); CMS; CHIC; Jasink (2009); Anastasiadou (2011).

(Continued)

Table 2.1. (Continued)

Motifs	*General number of seals*	*MBA seals from Crete*	*CH sign in CHIC*	*Number of seals with motif used in CH inscription*	*Pre-existing identifications*	*Graphic homogeneity*	*Distinct characteristics, features of functional importance, possible technical gestures*
'Loom weights'	80(7)	77(4)		(1)	String vessels, pole slung with string vessels, raft	Yes	The form bears resemblance to various types of loom weights from Crete. A combination with bar(s) or parallel lines may allude to a shed bar, heddle bar, warp threads and heddles. The manner of showing a '*loom weight*' with a V-shape above it resembles the visual effect of tensioned warp threads hanging over a shed bar. A posture of a standing '*weaver*' with loom weights corresponds to a working position in weaving on the warp-weighted loom.
– 'Weaver'	26	26	–	–			
'Warp-weighted loom'	3(1)	3(1)	–	–	Chess board with conical pawns, a ladder ending in two points recalling a lyre, or two dumbbell motifs	No	This schematic form resembles the general construction of the loom: a rectangular frame with loom weights. A heddling mechanism is possibly rendered on CMS II,2 288b.
'Loom with a rigid heddle'	(56)	(56)	038	53	Gate, fence, ladder	No	The form resembles a loom with a rigid heddle. One of its sides may be shown longer, which brings to mind a handle. The slats are shown both parallel and perpendicularly to this potential handle.
'Weft-beater'	(6)	(6)	–	–	Dagger, wedge, bar	No	The schematic forms of a sword or dagger and elongated pointed wedge or a slightly curved rod bear resemblance to a variety of bone or wooden tools used as weft-beaters.
'Textile with fringes'	9	9	041	9	Palace, banner sign, textile	Yes	Elongated rectangle that ends on one shorter side with a series of short parallel lines resembles a piece of textile taken off the loom, with a border finished by fringes. Finishing border suggests the warp-weighted loom technology.
'Interlaced band'	54	48	–	–	Interlace	No	Interlaced band resembling a woven band or interlaced strands of fibre or yarn. Interlacing may be seen as a technical feature
'Spider'	108(10)	77(6)	–	1	Spider	No	Depictions of spiders are simplified. Two body segments are usually present. Legs are shown converging, yet their number varies. The jaws and spinnerets may occasionally be shown.

these is the 'Malia/Eastern Crete Steatite Prisms' group which consists of about 560 seals dated to MM II.[12]

The three-sided soft stone prisms are thought to have been personal objects and their decorated faces may therefore provide information about the owner's identity or administrative activities.[13] Evidence for the use of these prisms in sealing practices is limited.[14] However, abrasion marks on the seals indicate that soft stone prisms were in general use prior to being deposited in tombs or settlements.[15]

Studies by Maria Anastasiadou have recently focused on the iconography on the three-sided soft stone prisms. In her comprehensive monograph, she distinguished 269 separate motifs that were combined with others to become representational composites: larger units comprising two or three motifs or combinations of motifs; and units composed of ornamental devices.[16] There has been no identification as yet of potential thematic relationships that might link all the motifs on an individual seal into a narrative that relates to the specific attributes of its user.[17] Nevertheless, several combinations of human figures or animals with other motifs do refer to images of everyday life and possible occupations or crafts, even though it remains unclear as to whether their meanings were intended to be narrative-based.[18]

Methodological approaches: The *chaîne opératoire* and textile production-related motifs in Aegean glyptic

Recognising real-world references to textile production in seal imagery requires the decoding of small-scale, often simplified depictions, the legibility of which is affected both by engraving techniques and by the adopted conventions of the time that modern viewers find difficult to understand. A comprehensive methodological approach to this challenge has been developed by Catherine Breniquet who uses the concept of the *chaîne opératoire* to identify textile production stages on cylinder seals from 3rd millennium BCE Mesopotamia.[19] She has catalogued the technical gestures and postures required by textile manufacture and analysed how these might have been translated into ancient iconography. This process has enabled her to suggest a new interpretation for a number of scenes, such as the formation of strands of wool, spinning and plying, making skeins, weighing wool, warping loom(s) and weaving and folding woven fabrics. Her pioneering approach has made it possible to discover more references to textile production in the iconography of Hittite seals.[20]

Textile *chaîne opératoire* has also been applied as a semantic framework for investigating Aegean seal imagery.[21] Its use is supported by the fact that textile manufacturing was a common and economically significant occupation in Bronze Age Greece and served as an important agent of multiple cross-craft interactions.[22] References, even in an abbreviated form, to textile production would have been immediately recognisable to the societies of the time.

Using the established characteristics of Bronze Age Greek textile technology together with the author's hands-on experience[23] and recognised textile-related motifs,[24] it has been possible to identify the following sets of textile production processes as being likely to be represented in Aegean glyptic (Fig. 2.1–2.2, Tab. 2.1):

1) Raw materials, such as fibrous plants (for example flax), woolly animals (*e.g.* sheep and goat), moths possibly producing wild silk;
2) Processing of fibres and formation of yarns, for example combs, combers, fibre strands, skeins, spindles with whorls and spinners;
3) Dyes and the dyeing industry, for example murex shells as a source of purple dye;
4) Weaving, for example loom weights and warp-weighted looms; other types of looms, for example band looms, weaving swords, combs and other weft-beaters; weavers;
5) Final products, for example bands, fabrics;
6) Symbolic references, *i.e.* spiders.

Preliminary identification of these in the iconography of seals was based on the general visual resemblance of a motif to actual plants, animals, objects, activities, *etc*. This was then corroborated by examining whether specific defining features could be detected, such as: distinct physical characteristics, for example shape of stem, crown and leaves, presence of seed capsules in a flax motif; shape of head, horns, ears, tails, presence of fleece in a woolly animal motif (Fig. 2.1.a–c); features of functional significance, for example heddling loom mechanism, loom weights as a part of a warp-weighted loom (Fig. 2.2.c); and specific technical gestures, for example both hands engaged in spinning, standing position for weaving on a warp-weighted loom.

Next, these new identifications were cross-checked against previously accepted ones or terms traditionally used to denote such motifs. Comparisons were sought with other arts and cultures, especially small-scale depictions, for example Mesopotamian glyptic. It must be emphasised, however, that the new identifications ought not be accepted without question: several remain tentative or do not fully meet the proposed criteria. And it is possible that some of the new identifications are no more reliable than the earlier ones. Nevertheless, by bringing together entire sets of motifs using textile production as the 'key', a new semantic framework can be advanced for examining seal iconography (see Fig. 2.10).[25]

The motif analysis was conducted using the 'Textiles and Seals' online database – part of the research infrastructure for the 'Textiles and Seals' project[26] (see Tab. 2.1). The iconography module collates the published evidence from the *Corpus der minoischen und mykenischen Siegel* volumes (hereinafter *CMS*), the Arachne database, *Corpus*

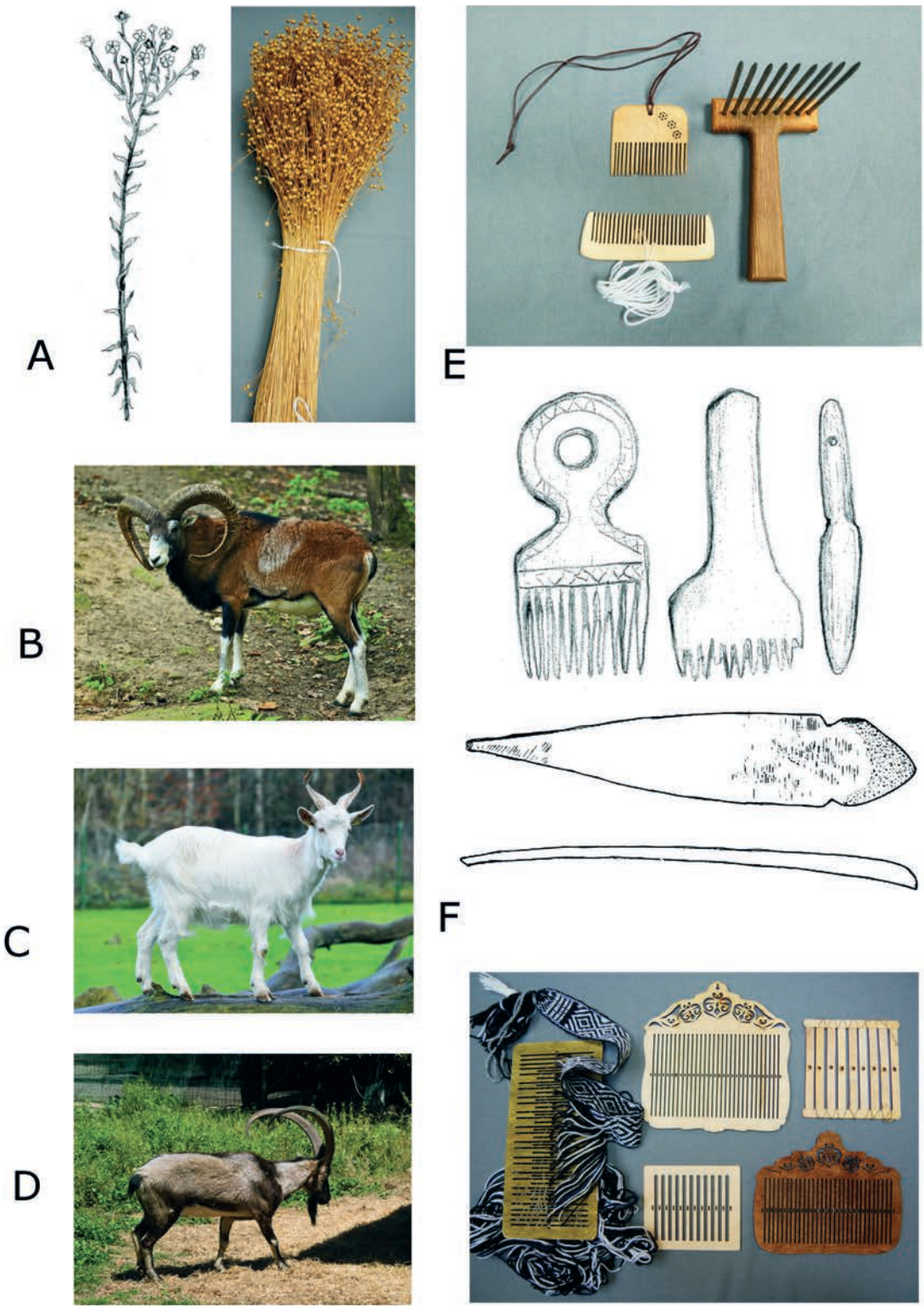

Fig. 2.1. Fibrous plants, woolly animals and textile tools. A. Flax plant and dried stems with seed pods. Photo and drawing: Author. After the Flax Council of Canada (https://flaxcouncil.ca/ (accessed 12 June 2021), fig. 4.10). B. Ovis orientalis orientalis**.** *Photo: Jörg Hempel, flickr (CC BY-SA). C.* Capra aegagrus hircus**.** *Photo: Quartl, Wikimedia Commons (CC BY-SA). D.* Agrimi *(*Capra aegagrus cretica**).** *Photo: C. Messier, Wikimedia Commons (CC BY-SA). E. Modern combs for wool combing and weaving, excavated combs and a weft-beater from Fiavè-Carrera, Italy and Virunum, Austria. Photo and drawings: author. After Bazzanella (2012, figs 8.7, 8.8); Gostenčnik (2012, fig. 2.7b) F. Modern rigid heddles. Photo and drawings: author.*

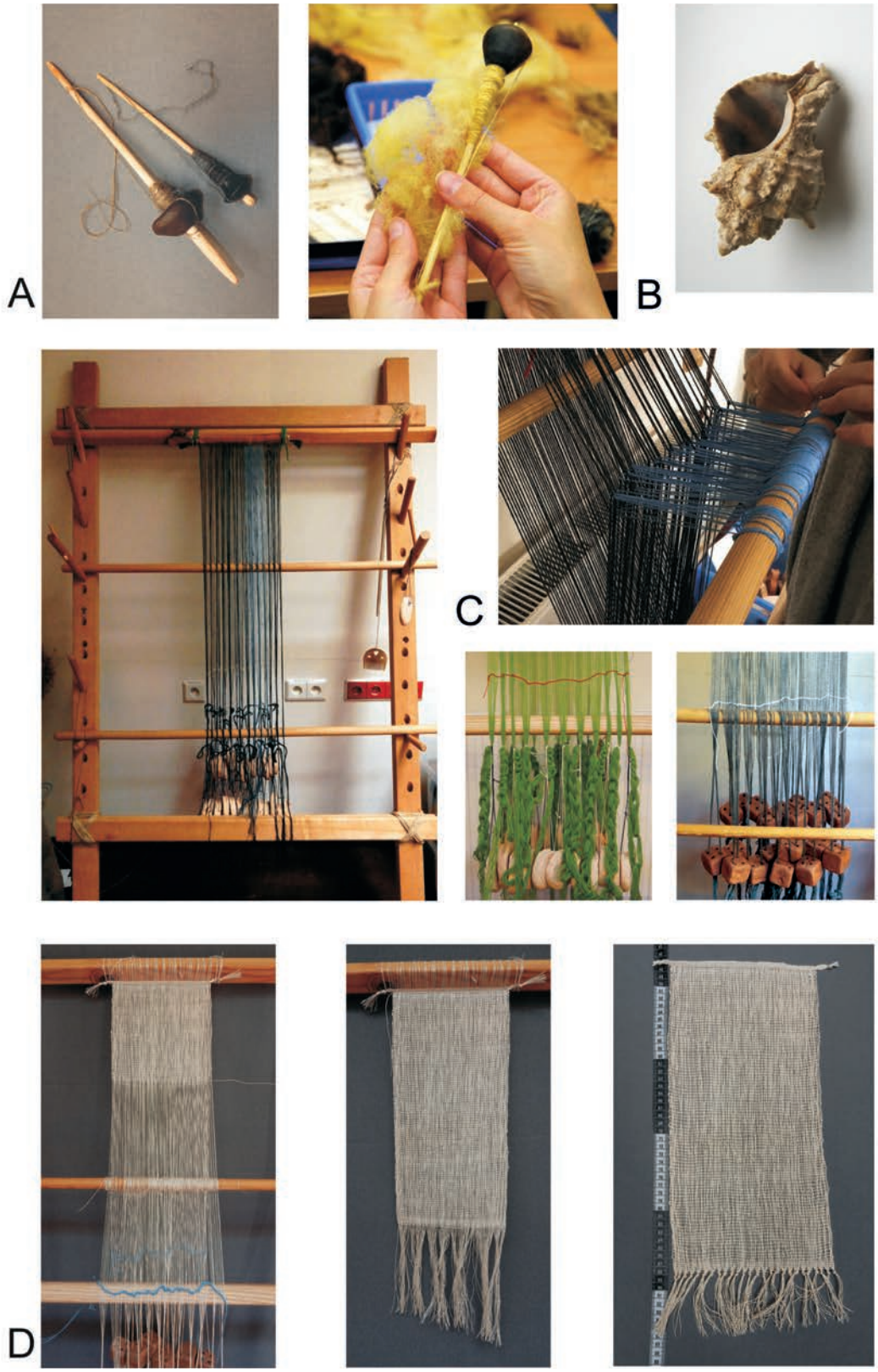

Fig. 2.2. Spindles, murex shell and warp-weighted loom. A. Spindles with linen and woollen yarns. Photo: Author. B. Shell of Hexaplex trunculus. *Photo: Dezidor, Wikimedia Commons (CC BY-SA). C. Warp-weighted loom; heddles and heddle bar, loom weights hanging over the shed bar. Photos: Author and Melissa Vetters (heddle bar). D. Piece of a textile moved from the warp-weighted loom. Photos: Author.*

Hieroglyphicarum Inscriptionum Cretae (hereinafter *CHIC*), Anastasiadou's monograph and some recent seal discoveries, for example from Petras.[27] Its purpose, however, was never to create yet another distinct corpus of Aegean seals. All textile production-related motifs discussed below are marked by single inverted commas.

1) Raw materials

'Flax' and 'woolly animals' motifs are regarded as markers for two basic raw materials used in textile production in Bronze Age Greece: flax and wool, two major classes of fibres of plant or animal origin. It has been suggested that the 'silk moth' motif might represent the use of wild silk as a raw material,[28] although whether wild silk was indeed used in textile production in Bronze Age Greece remains debatable.

'Flax'

In Greece, the cultivation of domestic flax (*Linum usiatissimum* L.) has been documented since the early Neolithic.[29] In the Bronze Age, the extensive use of this plant in textile production is supported by excavated textiles,[30] textile iconography,[31] Linear B documents[32] and the remains of a large-scale flax processing industry at Late Bronze Age (LBA) Kontopigado Alimos in Attica.[33]

The flax plant is characterised by long stems with slender, lanceolate leaves. Stems end in branches with small blue flowers that later produce seed pods (Fig. 2.1.a). A single stem with a series of narrow leaves and seed pods is considered to be a distinct characteristic of the fibres and seeds that mark the usability of the flax plant. Graphically, the 'flax' motif may appear in a variety of forms ranging from detailed ones showing all the plant's distinctive characteristics to more schematic ones in which the stem length is reduced and the seed pods omitted (Fig. 2.3). The motif is found exclusively on MM prisms from Crete. 'Flax' is suggested as a graphic equivalent for *CHIC* sign 031 and as such appears predominantly within inscriptions,[34] often in the formula *CHIC* 038–010–031 (Fig. 2.3.c and 2.8.a).[35] Occasionally, it may be seen as an ornament or ornamental filling on inscribed seals (Fig. 2.3.d-e below). The sign has been recognised as a plant in *CHIC*[36] and by Anna Margherita Jasink,[37] though without further botanical identification. Anastasiadou classified this motif as the 'shamrock' a and b.[38]

Depictions of the harvest and processing of flax can be found in ancient Egyptian art. There, the stem length is exaggerated to suggest the importance of the fibre; the plants are reduced to a series of long parallel lines shown occasionally with narrow leaves or just one seed pod on each stem.[39] Close graphic comparisons are found in 3rd millennium BCE Mesopotamia on seals (Fig. 2.3.f) and on the *stelae* and the vase from Uruk.[40] According to Breniquet, this motif might represent a fibrous plant such as flax, though this remains uncertain. On vessels from 3rd-century BCE Kafizin, Cyprus, which bear inscriptions referring to a flax and linseed company, a flax plant is sketched similarly to

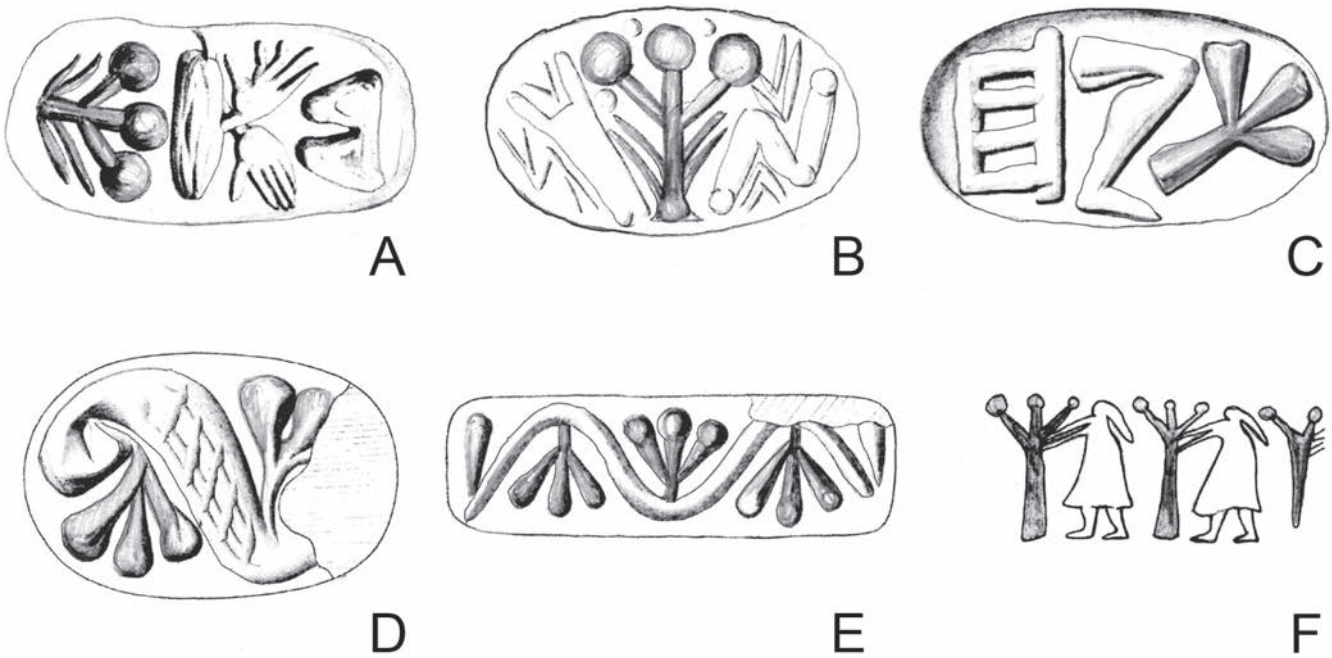

Fig. 2.3. 'Flax' motif on Aegean seals. A–E. CMS IV 135b (CHIC #276β); CMS X 312c (# 273β); CMS II,2 259a (#248α) and the formula: CHIC 038–010–031; CMS III 186b; CMS III 237a. F. Seal from Susa, Mesopotamia. After Breniquet (2008, fig. 70.1). All drawings of seals are not to scale. Aegean seals in all figures by courtesy of D. Panagiotopoulos and the CMS Archive, Heidelberg.

the 'flax' motif, being simplified to low branches with dots representing seeds.[41]

'Woolly animals'

The economic importance of wool, a new and innovative fibre in Bronze Age Europe, grew steadily in Greece from the Late Neolithic[42] onwards to the LBA when the industrial scale of specialised wool production is documented by Linear B tablets.[43] It appears that the first depictions of sheep on seals are to be found in the MM II[44] which roughly coincide with the adoption and spread of purple dyeing in Crete.[45] This important innovation required a raw material with a good capacity for fixing dyes, such as wool. Since wool could also be obtained from goats, and goat hair was indeed found in a narrow band from LM Chania,[46] the 'woolly animal' motif covers depictions of two species: 'sheep' (*Ovis aries*) and 'goat' (*Capra hircus*).

Iconographic distinction between members of the Caprinae family, for example sheep and, especially, domesticated goats and feral goats (*agrimia*), is very difficult to identify on seals and became the focus of a separate research project within the 'Textiles and Seals' project.[47] Criteria for the recognition of 'sheep' have been established, including: lateral spiral horns curved downwards, head in profile with a bump, lack of a beard, a short or long tail hanging downwards and mane or fleece (Fig. 2.1.b and 2.4.a–d). 'Goats' and *agrimia* (Cretan wild goats) share several physical features such as horns that grow close together (larger and with a more prominent curve in *agrimia*) or a beard for males (Fig. 2.1.c–d and 2.4.e–g). What differentiates them are: their tails, short and held upwards in goats but downwards in *agrimia*; a beard and characteristic udders and teats in female goats (Fig. 2.4.g); and straight hair with bristles on their back for *agrimia*. However, simplified animal depictions, especially on MM prisms, do not always allow specific species identification and many depictions remain classified more generally as 'woolly animals' (see Tab. 2.1).

It is worth observing that 'sheep' and 'goats' do not seem to occur that often, especially when compared to *agrimia*.[48] Fleece, which would be a direct iconographic reflection of their woolliness, is even more rarely depicted on seals.[49] Beside entire depictions, 'woolly animals' can appear as frontal views of rams (Fig. 2.4.i–j) or with heads in profile (Fig. 2.4.h). A 'woolly animal head in profile' has been identified as a real-life representation for *CHIC* sign 016 (Fig. 2.6.e–f).[50] It can also appear, however, in single

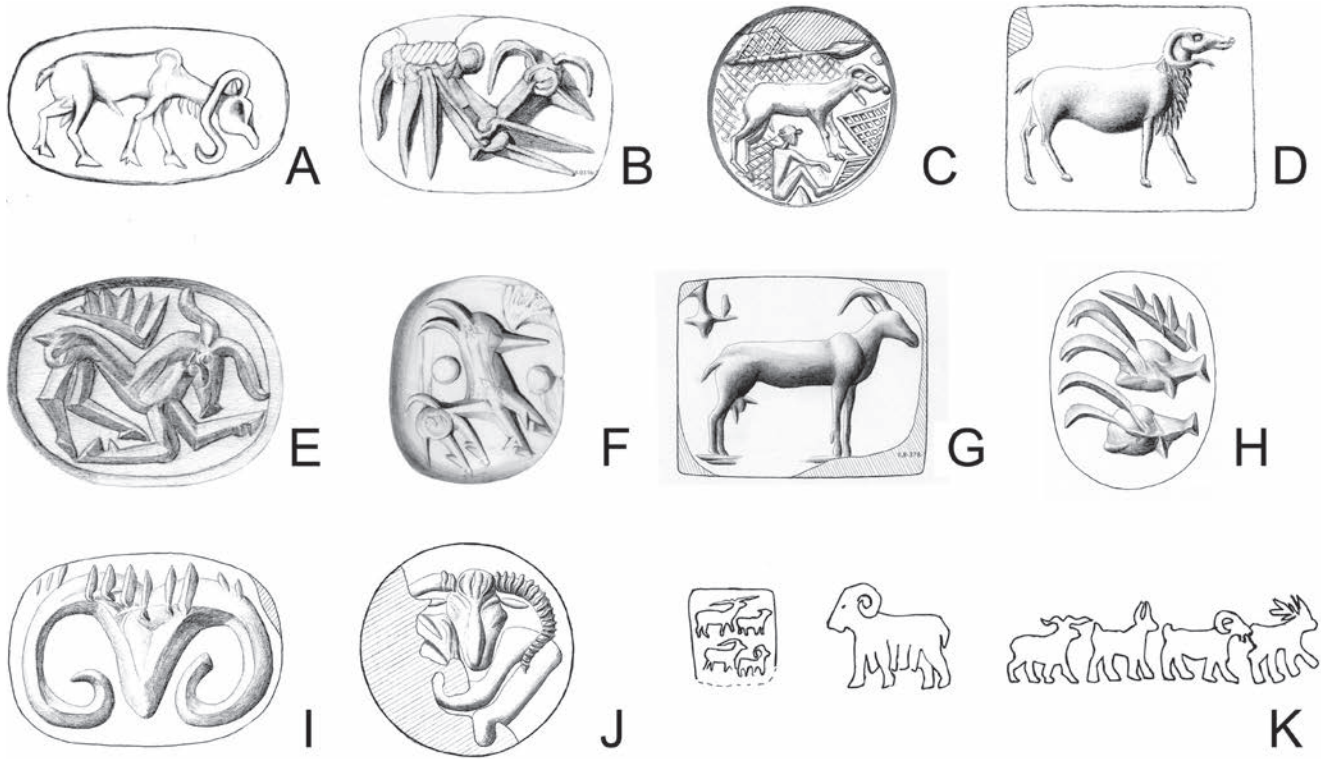

Fig. 2.4. 'Woolly animal' motifs on Aegean seals. A–D. 'Sheep'. Images: P.TSK05/499. After Krzyszkowska (2012, fig. 5); CMS VI 31b; CMS II,8 33; VI 177. E–G. 'Goats'. CMS II,2 163a; CMS II,2 224c; CMS II,8 378. H–J. Heads in profile and protomes of rams. CMS III 164c; CMS III 159a; CMS II,7 176. K. Caprinae in Mesopotamian art. From left to right: a sealing from Tepe Gawra; detail from a seal from Tell Mazan; animal frieze from the ritual stone basin Temple D, Ebla. After Vila and Helmer (2014, figs 2.16, 2.17, 2.21).

or multiplied images, as a separate motif on non-inscribed seals (Tab. 2.1, Fig. 2.4.h).

The 'woolly animal' motif can include representations defined previously as 'ram', 'goat', 'bovine or goat'[51] or '*agrimi*', 'sheep', 'head of a ram', 'head of a 'goat' and 'head of an *agrimi*'.[52] 'Woolly animal head in profile' as a script designation has been classified within the group of mammals,[53] or as a 'goat head'.[54]

In frescos, sheep and a goat have been shown in a pastoral setting, led by two different shepherds, on the Miniature Fresco from Akrotiri, Thera.[55] The animals share characteristics of both the 'sheep' and 'goat' motifs and in addition display red (sheep) or white (sheep and a goat) fleeces. In the Bronze Age, sheep and goats were a frequent theme in Mesopotamia (see Fig. 2.4.k)[56] but their depictions are also to be found in Egypt.[57] The oldest Mesopotamian images date to the Uruk period and show hairy sheep with long spiral horns that spread horizontally, while a different type with horns curved downwards appears on cylinder seals from Uruk-Warka. In the EBA and MBA, the animals with horns curved downwards could also be shown with fleece.[58]

'Silk moth'

A unique find of a calcified *Pachypasa otus* cocoon from Akrotiri, Thera, raises the possibility that wild silk was used in textile production in Bronze Age Greece.[59] Since the other silk moth common in Europe, *Saturnia pyri*, is characterised by wings marked by large single dots, a series of LM I seals showing butterflies with dotted wings, as well as religious scenes with the so-called 'tree-shaking' ritual, seem pertinent to this discussion.[60] However, with the exception of the cocoon and these depictions of butterflies/moths together with possibly diaphanous fabrics, no other evidence exists that might imply the use of wild silk.[61] Fourteen out of the 29 examples of the 'butterfly' motif in *CMS* Arachne show seal faces with insects that have wings dotted with large circles. These potential 'silk moths' are usually shown frontally and singly (Fig. 2.5.a–b) or in profile with other insects. According to earlier research, butterflies had a symbolic meaning due to the transformations in their life cycle.[62] Butterflies of various species were a frequent theme in Egyptian art from the Old Kingdom onwards and had a symbolic or magical meaning related to the afterlife.[63]

2) Processing of fibres and spinning

Flax and wool fibres have to be processed before they can be transformed into yarn. A possible reference to this manufacturing step is a 'comb' motif. Combs may also have been used for beating weft in weaving and, obviously, for combing hair. Combs used for wool might have had longer teeth and those used in weaving might have been broader and denser (Fig. 2.1.e).[64] However, since combs were made of perishable materials, for example bone and wood, they are rarely preserved in the archaeological record, especially in Greece. Spinning, the most time-consuming operational sequence in textile making, may be reflected on seals by the 'spindle with whorl' motif.

'Comb'

'Combs' are shown as rectangular objects indented on one of the longer sides[65] and slightly curved inwards on their non-indented side.[66] Depictions of a man[67] holding a 'comb' provides the basis for this identification. However, there is little graphical consistency in representing this motif – 'combs' may be shown longer, shorter, thicker or thinner, their teeth short or long. 'Combs' in association with human

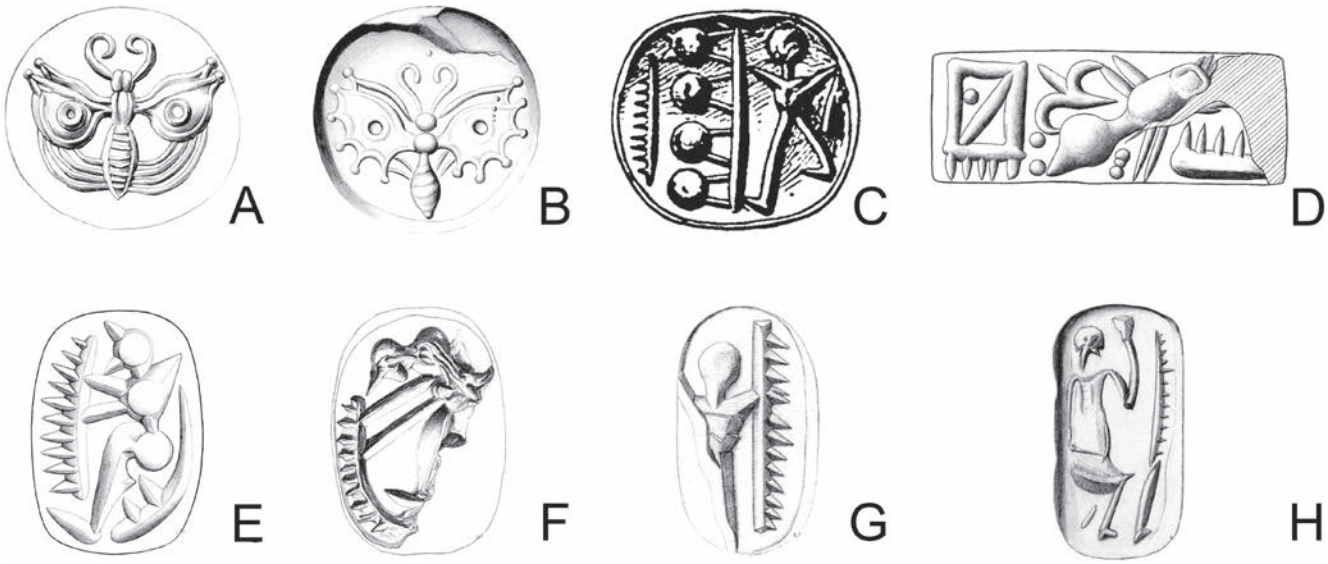

Fig. 2.5. 'Silk moths' and 'combs' motifs on Aegean seals. A–B. 'Silk moths'. CMS VI 455; CMS V 677b. C–G. 'Combs' and 'combers'. After Anastasiadou (2011, cat. no. 597a); CMS II,8 62 (CHIC #160); CMS VS1A 325a; CMS VII 15a; CMS II,2 102a; CMS II,2 304c.

figures can be shown being held in two hands, one hand (Fig. 2.5.c and e–g) or not being held at all (Fig. 2.5.h). When held, a 'comb' is always touched from the non-indented side, which may lend support to its identification as a tool.

Holding a 'comb' in one hand whilst standing may refer to its use as a weaving comb; and holding it whilst sitting to wool combing. However, the gesture of holding the 'comb' in two hands while sitting cannot be easily explained by any specific activity in the textile-making process. The gesture of a man holding the rectangular 'comb' in one hand (Fig. 2.5.g) also resembles the gesture of the 'weaver' with the 'loom weights' (see below), while the 'comb' itself can be interpreted as either a component of the 'loom weights' motif, *i.e.* a bar with warp threads, or heddles (Fig. 2.7.g–i). In addition to its association with human figures, the 'comb' motif appears occasionally in inscriptions, although it is not itself considered to be a script sign (Fig. 2.5.d).[68]

In earlier identifications, the 'comb' held by a human figure was categorised as an undefined tool[69] or, when shown separately, as a 'saw branch'.[70] The 'saw branch' motif, *i.e.* an elongated bar with teeth or narrow leaves on one side, appears frequently in combination with animals, including possible 'woolly animals', with their heads in both frontal and profile views (Fig. 2.4.e and h). There is no consistency in how 'saw branches' are portrayed graphically: they may resemble combs,[71] plants or even saws, making it unlikely that a universal identification existed for this motif. Iconographic comparisons to the 'comb' being used as a textile tool have not been found.

'Spindles with whorl'

In Bronze Age Greece, spinning was performed using a spindle with a whorl placed along the lower part of the rod. Spindle whorls had various geometric forms and sizes that corresponded to their efficiency in producing yarns of different qualities.[72] Spinning can be performed sitting, standing and even walking but it always involves the use of both hands.

A hypothetical identification of the 'spindle with whorl' motif has been proposed on the basis of an impression from a hard stone inscribed prism[73] (Fig. 2.6.a). The elongated form of *CHIC* sign 063 – with a potential whorl-like object and a thread-like effect created by a series of narrow crescents – bears some resemblance to an actual spindle with whorl and a cop[74] of spun yarn (see Fig. 2.2.a). Similar elongated forms with a blob in the middle or at the top/bottom may be seen amongst other hieroglyphic signs such as *CHIC* 062,

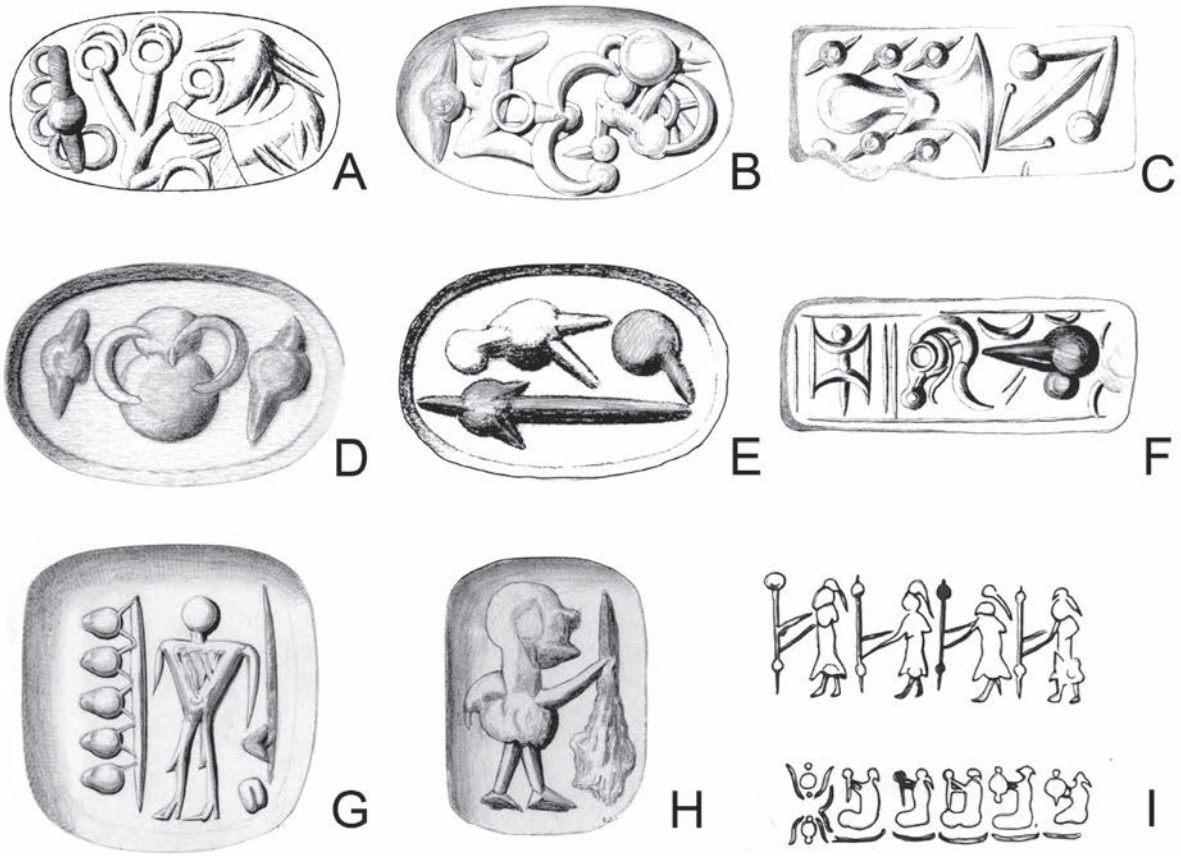

Fig. 2.6. 'Spindle with whorl' and 'spinner' motif on Aegean seals. A–H. 'Spindles with whorls' and 'spinners'. CMS II,8 86 (CHIC #141); CMS II,2 230c (#229α); CMS XII 112a (#287α); CMS II,2 150a; CMS II,2 168 (#234α); CMS IV 136a (#305α); CMS II,2 306c; CMS II,2 309a. I. Spinning in Mesopotamian glyptic. A seal from Djemdet Nasr and a seal from Susa. After Breniquet (2008, figs 78.1, 79.1).

065 and perhaps even 050.[75] The 'spindle with whorl' motif also accompanied inscriptions not recognised by *CHIC* as a script sign[76] and it is occasionally found on non-inscribed prisms (Fig. 2.6.d). The motif was sometimes shown with another smaller blob that resembles a skein of fibre prepared for spinning (Fig. 2.2.a and 2.6.e–f). Based on this new interpretation, a few depictions of a man shown with a 'spear' head pointing downwards have been tentatively redesignated as 'spinners' (Fig. 2.5.h, 2.6.g–h and 2.8.e). The 'spinner' is shown striding or sitting and occasionally holding the 'spindle' with one hand.[77] On *CMS* II,2 306c, a potential 'spindle with whorl' is combined with a 'weaver' and 'loom weights' (Fig. 2.6.g). The shape of 'whorls' corresponds roughly to spherical and biconical spindle whorls that have been found in archaeological contexts.[78] This, as well as a possible representation of skeins of fibre or yarn loops, are considered features of functional significance. Traditionally, the signs/motifs discussed were labelled as a 'lance' or 'dart', as a 'peg', 'mace' or 'sceptre',[79] or as a 'spear'.[80] In *CHIC*, the signs 062, 063 and 065 appear under the heading 'geometric signs'; and 050 as 'arms'.[81] Jasink labelled them neutrally as variations of 'dots (cup sinking) with outgoing elements', 'pin with a dot in the middle' (=063) and a 'pin (nail/peg)' (=062).[82]

Spinning was a frequent theme in ancient art and mythology, especially in classical antiquity.[83] Female spinners are predominantly shown standing, while the technical hand gestures range from schematic depictions to very detailed ones, for example in Greek vase painting. In the Bronze Age, spinning scenes are found in Egyptian wall-paintings and tomb models and, again, in Mesopotamian glyptic. Although Egyptian techniques of spinning were different from the drop-spindle technique,[84] a wall-painting from the Tomb of Khnumhotep, Beni Hassan, shows a possible analogy to the specific shape of a cop which resembles a spearhead pointing downwards.[85] In the Mesopotamian glyptic, spinners (usually female) are shown striding, as well as sitting, in the scenes that Catherine Breniquet identifies as spinning (Fig. 2.6.i). The dominant technical gesture is to have two hands on a spindle, though the spindle may also be held with only one hand.[86]

3) Dyed textiles and dyeing: 'Murex shell' motif

Reference to dyed textiles and dyeing has been recognised in possible depictions of 'murex shells'. Murex snails were used to produce a purple that was exploited as a precious textile dye and pigment in wall-paintings.[87] Since there is evidence of a purple-dye industry on Crete as early as MM I–II, or perhaps even EM III, it has been assumed that the art of purple-dyeing might have been a Cretan invention.[88] Three species of snail, *Hexaplex trunculus*, *Murex brandaris* and *Purpura haemastoma*, were used to produce purple dye in the Mediterranean. Of these, the *Hexaplex trunculus* was the one favoured at many eastern Cretan sites (Fig. 2.2.b).[89] A 'murex shell' motif has been identified on a few seals, with five potential examples in MM glyptic[90] (Fig. 2.7.a). Its form, resembling a sculptured shell body with spines, has provided the basis for this interpretation. These motifs have been previously described as a 'murex'[91] or 'triton shell'.[92] No iconographic comparisons with this have been found.

4) Weaving

References to weaving have been recognised in a series of motifs identified as potential textile tools. They comprise motifs associated with the main type of loom used in Bronze Age Greece (the 'warp-weighted loom' and 'loom weights'), as well as a tentatively suggested band loom, 'rigid heddle' and tools such as weaving swords, knifes, pins and 'combs', all collectively called 'weft-beaters'.

'Warp-weighted loom' and 'loom weights'

Use of the warp-weighted loom has been recorded in Greece since the Neolithic, throughout the Bronze Age and then into classical antiquity.[93] The evidence of Aegean loom weights, for example spherical, cuboid, pyramidal, spools, *etc.* implies diachronic developments in weaving technology, a variety of woven fabrics and, possibly, different regional weaving traditions.[94] The widespread use of discoid loom weights, first on Crete and then across the southern Aegean, has been connected to the transmission of the technical innovations that accompanied their use; and also to the likely mobility of female weavers from Crete who may have spread the entire warp-weighted loom technology.[95]

A warp-weighted loom generally consists of a frame made of uprights, a cloth beam and a shed bar (Fig. 2.2.c).[96] The warp threads, tensioned by loom weights, are separated into at least two layers by a shed bar. The front layer hangs over the shed bar whereas the back layer(s) hang freely. By means of the heddles fastened to a heddle bar, the warp threads from the back are moved to the front, creating an artificial shed. Since the geometry and weight of a loom weight affects the final properties of a woven fabric, for example whether it is fine or coarse, balanced, weft- or warp-faced,[97] there are good reasons to consider loom weights to have a key functional significance.

'Loom weights' were the first textile tools to be recognised in seal imagery (Fig. 2.7.d–i).[98] The relationship between 'loom weights' and the way the actual loom weights are suspended and hang from the loom is emphasised by a number of distinct characteristics and features of practical significance in the image. These are: various shapes of the 'loom weights' that correspond roughly to the different types of Minoan loom weights;[99] the V-shape ending in a 'loom weight' that demonstrates how warp threads hang tensioned over a shed bar; and a series of parallel lines occasionally shown above the bar that represent the warp threads arranged in separate parallel groups above the shed bar (Fig. 2.2.d). Alternatively, when two bars are shown, the parallel lines

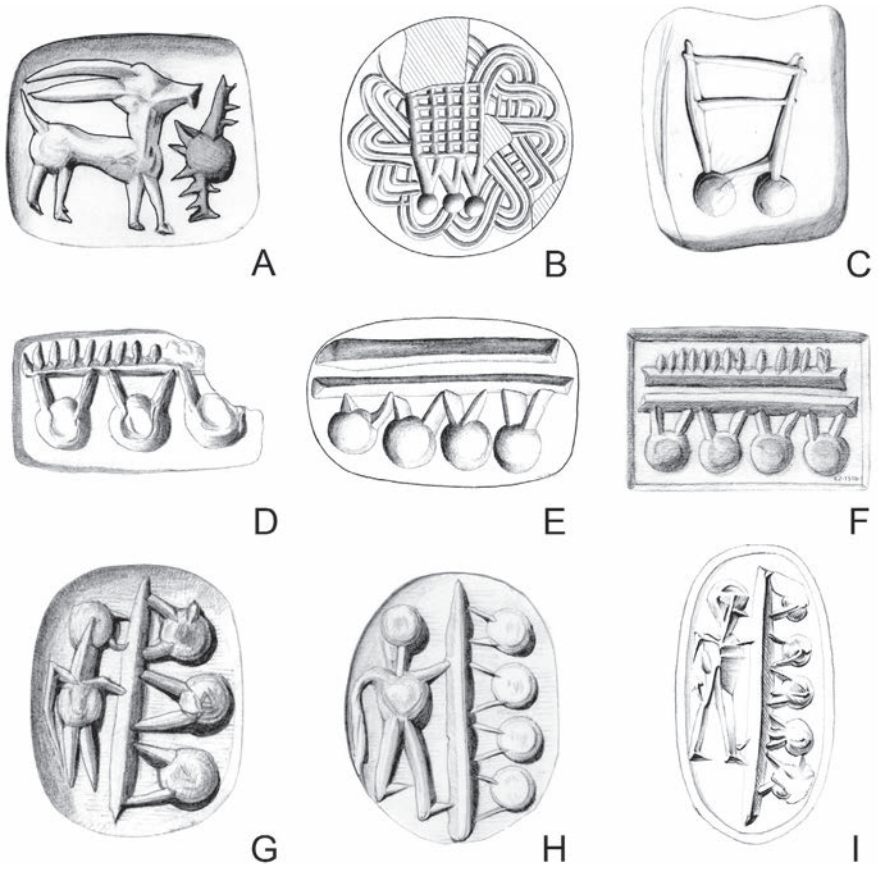

Fig. 2.7. 'Murex shell', 'warp-weighted loom', 'loom weights' and 'weaver' motifs on Aegean seals. A. 'Murex shell'. CMS II,2 262a. B–C. 'Warp-weighted looms'. CMS II,1 64a; CMS II,2 288b. D–I. 'Loom weights' and 'weavers'. CMS IV 125c; CMS III 195c; CMS II,2 151b; CMS II,2 214a; CMS II,2 224a; CMS VII 17b.

resemble the heddles fastened to the heddle bar (Fig. 2.7.f). When appearing in combination with a 'weaver', the standing position of a male figure corresponds, in a simplified form, to the working position during weaving.[100] However, the specific technical gestures required by weaving, for example drawing the heddle bar using two hands in order to change a shed, or picking the weft with two hands upraised, are missing in these depictions (Fig. 2.7.g–i).

Although 'loom weights' are one of the most frequent textile production-related motifs (see Tab. 2.1), depictions of an entire warp-weighted loom are rare in Aegean glyptic. In addition to the already recognised 'warp-weighted loom' on a MM cuboid seal,[101] another possible depiction comes from a three-sided prism *CMS* II,2 288b (Fig. 2.7.b–c). Here, a frame-like shape suggests uprights, a cloth beam, a heddle bar and a shed bar; and two circular blobs may represent loom weights or the stands required if the loom was free-standing.[102]

The hitherto conventionally accepted identifications describe 'loom weights' as 'string vessels' and 'pole slung with string vessels'.[103] According to Brendan Burke, the 'string vessels' in fact comprise two separate motifs: one that does indeed represent vases and the other that shows suspended loom weights.[104] The 'warp-weighted loom' on *CMS* II,2 288b, as published, has been rotated 180° and tentatively interpreted as a 'ladder' with three steps, ending with two points that recall a 'lyre' or two 'dumbbell' motifs.[105]

Evidence for 'loom weights' as an abbreviated reference to weaving has also been found in LBA III Enkomi, Cyprus, where a seal with a motif resembling 'loom weights' was impressed on an actual pair of loom weights.[106] Depictions of the 'warp-weighted loom' are more frequent, especially in the iconography of the later post-Bronze Age, for example on the urn from Sopron, a Cypro-Geometric bowl and several Greek vase paintings.[107] In these depictions, the loom weights shown as a part of the implement resemble the 'loom weights' motif. It has already been noted that, in terms of the Aegean Bronze Age, the closest analogies to these can be found in the Linear A sign AB 54 interpreted as a schematic depiction of a warp-weighted loom, and in the *CHIC* sign 041 ('fabric with fringes').[108] A series of rock-carvings with warp-weighted looms from Naquane, in the Camonica Valley in Italy, provides another good comparison, even though the precise dating of these petroglyphs is disputed.[109]

Fig. 2.8. 'Rigid heddle', 'weft-beater', 'interlaced band', 'textile with fringes' and 'spider' motifs on Aegean seals. A–D. 'Rigid heddle'. CMS II,8 67 (CHIC #162); CMS XI 299a (#214a); CMS III 236a; CMS III 206c. E–H. 'Weft-beaters'. CMS II,2 302a; CMS II,2 302b; CMS XII 047a; CMS IV 125b. I–J. 'Interlaced bands'. CMS II,5 167; CMS II,1 471a. K–L. 'Textiles with fringes'. CMS II,2 244c (#271β); CMS II,2 227 (#200).

'Rigid heddle'

The rigid heddle is a frame-like construction made of a row of slats or reeds with drilled holes and slots in between them (Fig. 2.1.f). It is a simple and efficient loom for band weaving but there is no archaeological evidence for its existence before the Roman era:[110] band looms are usually invisible in the archaeological record. Nevertheless, narrow bands were important textile products and band weaving must have been one of the oldest weaving techniques, as is demonstrated both by excavated textiles with starting borders (bands woven on band looms which form the beginning of fabrics to be woven on the warp-weighted loom) from Neolithic Central Europe and by band iconography.[111]

It has been provisionally suggested that the 'rigid heddle' was the real-life version of *CHIC* sign 038.[112] It appears frequently with 'flax' (=031) as part of the formula *CHIC* 038–010–031 (Fig. 2.3.c and 2.8.a), or in a shorter combination *CHIC* 038–010 (Fig. 2.8.b).[113] Occasionally, the 'rigid heddle' is depicted alone on inscribed and non-inscribed prisms as the main motif (Fig. 2.8.c–d).[114] Its graphic form consists of an elongated rectangle with several 'slats' inside; it is often shown with one of its sides slightly longer that the other which brings to mind a handle (Fig. 2.8.c). If this 'handle' did indeed exist, then, if placed in an upright position, it would have been useful for shed changing and could be considered to be a feature of functional significance. Rigid heddles with elaborated handles or upper borders are numerous in the ethnographic record. Traditionally, the 'rigid heddle' motif has been described as a 'gate' and 'fence'[115] or classified as 'buildings and parts of buildings'.[116] Indeed, the graphic form of the sign resembles a door inside a door jamb. In *CMS* and Anastasiadou's monograph it is termed a 'ladder'.[117] This motif has been tentatively compared to depictions of fabrics and 'vertical looms' on Mesopotamian seals.[118]

'Weft-beater'

In weaving, the weft should be packed before a new weft and after the shed has been changed. Several tools, largely invisible in the archaeological record, could have been used to do this, such as bone, antler or wooden knives, combs, so-called weaving swords and other types of beaters, for example pins or pointed wedges (Fig. 2.1.e).[119] Many of these tools might have had more than one purpose as they were also practical for picking up the chosen warp threads in pattern weaving or for helping to keep a shed clearly open.

The 'weft-beater' motif has been provisionally recognised on six prisms. It appears in combinations showing a pointed elongated object, together with a 'dagger' that itself may also be regarded as a potential 'weft-beater'[120] (Fig. 2.8.e–h) – and with a human figure who could be interpreted as a 'spinner' and 'weaver'[121] (Fig. 2.8.e–f). A pointed edge and the slightly curved shape of this tool could point to its practical importance. In earlier interpretations, this motif has been recognised as a 'dagger', 'wedge', 'spear' and a 'bar'; and it has been recorded on other seals that lack any clear references to weaving.[122] Tools for weft-beating were depicted in Greek vase paintings linked to warp-weighted loom technology: for example on a *lekythos* of the Amasis painter in the Metropolitan Museum of Art and an *aryballos* from Corinth.[123]

5) Final products: 'Interlaced bands' and 'textiles with fringes'

The 'interlaced band' motif corresponds roughly to the 'endlosband' (a continuous tape) in the *CMS* Arachne and it is recorded on 54 seal faces, dated stylistically to EM and MM, which show various interlaced elements made of straight or curvilinear lines. Some of these resemble patterned woven bands,[124] others strands of yarn or processed fibres (Fig. 2.8.i–j). Interlacing brings to mind several technical concepts in textile making, for example looping, plaiting and weaving. The motif appears alone and in representational composites and compounds, for example the background for the 'warp-weighted loom' on *CMS* II,1 64a (Fig. 2.7.b). Several seals with the 'interlaced bands' were impressed on a few cuboid loom weights from MM Crete.[125]

'Textile with fringes' is the reference for *CHIC* sign 041 and has already been recognised as a reference to a textile or cloth and considered a possible predecessor of the later 'cloth' logogram in the Linear B script (Fig. 2.8.k–l).[126] Its form resembles a rectangular piece of fabric ending in fringes. Fabrics are usually rectangular in shape when taken off the loom[127] but the fringed selvedge is a feature characteristic of warp-weighted loom technology. When the weaving has been finished, the leftover warp threads have to be protected from unravelling (Fig. 2.2.d). There are many ways of finishing this selvedge but the most obvious method is to use the warp threads. This finishing-off technique is found in excavated textiles from Central Europe[128] and, in the Aegean, in clothing iconography.[129] The 'textile with fringes' is usually represented by a diagonal or, occasionally, by two crossed diagonals (Fig. 2.5.d and 2.8.k–l), though no functional explanation for this can be suggested.

CHIC 041 is now widely accepted as representing a textile[130] despite Arthur Evans' original interpretation of it as a 'palace'.[131] The 'warp-weighted loom', as represented on *CMS* II,1 64a, can be seen as the closest geo-chronological analogy and possibly even the graphic inspiration for *CHIC* 041.[132] Rectangular fabrics, occasionally with fringes, appear in washing scenes from Middle and New Kingdom tombs in Egypt.[133] In the Near East, square pieces of textile with fringes on all three selvedges have also been found, for example on the Halafian vase from Tell Arpachiyah.[134]

6) The 'spider': A symbolic reference

A symbolic link between spiders, spinning and weaving appears to be universal and was therefore likely in the Aegean Bronze Age. It originates from the fact that each spider produces a protein fibre – spider silk – that it uses afterwards to build webs. This process has been reflected in the mythology and art of various past cultures, including the Sumerian myth about Uttu, the spider goddess of spinning and weaving;[135] and the Lydian/Greek myth of the weaver Arachne who was turned into a spider by Athena.[136] All species of spiders, though perhaps looking very different from each other, have eight converging legs and a body divided into two segments: a cephalothorax with pedipalps (jaws) and an abdomen with one to four pairs of spinnerets.[137]

'Spiders' were a frequent motif on seals, especially on three-sided soft stone prisms (see Tab. 2.1) where they are shown singly and in pairs, triplets and quadruplets (Fig. 2.9). Their images are often simplified and their legs can be reduced to four (two at the front and two at the back). The two body segments are usually shown, as well as potential pedipalps or spinnerets, sometimes shown together, each on one body segment (Fig. 2.9.a–d). It is difficult, however, to distinguish between these two organs in the iconography. This motif has traditionally been recognised as a spider.[138]

Interestingly, a seal bearing a depiction of two 'spiders' (*CMS* II,6 192) was stamped five times on each side of the spool-like tool from Malia (inv. no. MAL-69 M1662) that may have been used for spinning (plying) or weaving. Spiders were also depicted in Mesopotamian glyptic, possibly in connection with spinning (Fig. 2.6.i).[139]

Textile iconography: A summary and conclusion

The six sets of suggested textile production-related motifs consist of individual motifs and representational composites that refer, with varying degrees of likelihood, accuracy and frequency, to the consecutive steps in the *chaîne opératoire* of textile making. However, all the proposed identifications display the distinct characteristics, practical features or technical gestures that reflect their potential real-life counterparts. Moreover, iconographic comparisons for many of them can be found in other arts and cultures, including small-scale analogies in Mesopotamian glyptic. Generally, the new identifications proposed in this paper correspond to previously identified individual motifs, albeit now with newly assigned potential meanings. The 'warp-weighted loom' and 'spindle with whorl' motifs alone bring together a number of disparate identifications under one new heading.

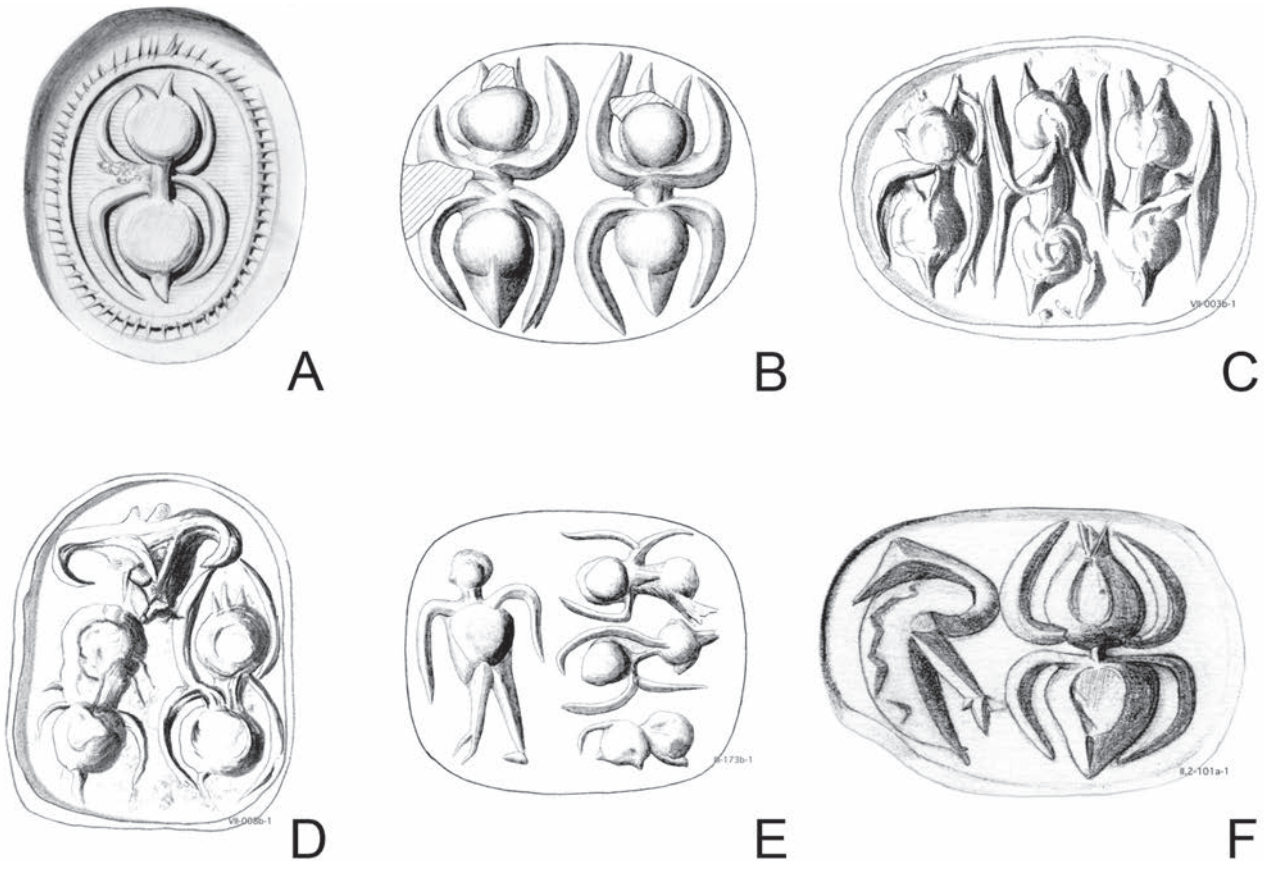

Fig. 2.9. 'Spiders'. CMS II,2 224b; CMS III 172b; CMS VII 3b; CMS VII 8b; CMS III 173b; CMS II,2 101a.

The graphic homogeneity with which the motifs were reproduced can be explained by the type, popularity and durability of the motif and the extent of its ease of use and suitability. The motifs recognised to be textile production-related all share some general universally recognised form that allows them to be tracked back through various depictions over centuries. However, the individual motifs are not themselves always that consistently alike (see Tab. 2.1). Even signs which by definition should be standardised such as 'flax', 'woolly animal heads in profile' and 'rigid heddles' (Fig. 2.3, 2.6, 2.8.a–c) are found executed differently within the Cretan hieroglyphic script. At the same time, certain physical features that defined 'sheep' and 'goats' are to be found in the very earliest depictions and repeated over the motif's long history.

Frequency of motifs

Textile production-related motifs come predominantly or exclusively from MM non-inscribed and inscribed prisms. Several motifs, however, such as 'interlaced bands' or 'spiders', were already present in Early Bronze Age (EBA) glyptic (see Tab. 2.1). The exceptions to this rule appear to be the 'sheep' and 'silk moths' motifs. 'Silk moths', if they are indeed related to the use of wild silk as a raw material, appear on LM I seals, which may mark its introduction into textile production. Otherwise, the MM dating corresponds to a number of key developments in the history of textile technology, for example the increase in the economic importance of wool, the spread of discoid loom weights and warp-weighted loom technology beyond Crete, the introduction of purple dyes on Crete; and an overall increase in the scale and complexity of textile production.[140] It is therefore tempting to see the MM outburst of textile production-related motifs as a reflection of the key socio-economic importance of a textile craft that might have driven seal imagery and graphic forms of script signs.[141]

The individual motifs that most frequently appear, in order, are: 'woolly animals' (283 examples), 'spiders' (108 examples), 'loom weights' (80 examples) and 'interlaced bands' (54 examples). The least frequent are 'textile with fringes' (9 examples) and 'murex shell' (7 examples). Assuming these have all been correctly identified, the best represented in terms of operational process are references to raw materials and weaving.

Combinations of motifs

Several textile production-related motifs appear on seals in combinations of two or more motifs (for example 'combs',

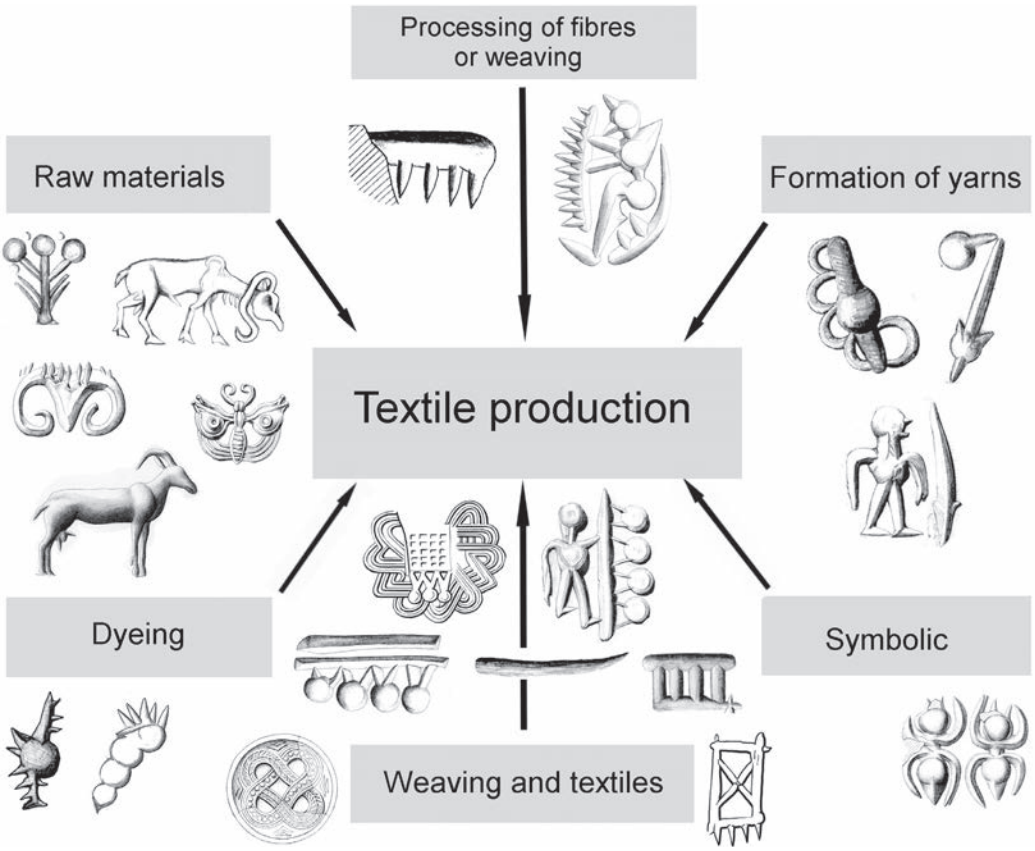

Fig. 2.10. Network of potential real-world references to textile production in Aegean seal imagery. Drawings after the CMS Arachne database.

'spindle whorls' or 'weft-beaters' with 'loom weights') and alongside human figures. The latter are found together with the 'loom weights' (26 examples), 'combs' (13 examples), 'spindle with whorl' (5 examples) but also with 'woolly animals' and 'spiders'. The human figure (exclusively male or sexless in MM glyptic) can be shown interacting with the textile production-related motif, *i.e.* they can hold the tool while their posture, in a simplified form, is appropriate to the specific task, such as combing, spinning or weaving (Tab. 2.1), that they are performing.

Scenes showing 'woolly animals' appear to be more complex; on MM prisms, men are often shown touching an animal's head or horns though the meaning of this gesture is unclear. On LM seals, men are also presented in pastoral scenes, which may be a continuation of an earlier MM tradition (see Fig. 2.4.c), while women are found with a single standing ram.[142] Where men and spiders appear together in MM combinations with spiders, they do not interact (Fig. 2.9.e).

Combinations of images on a single seal face, such as a 'weaver' with 'loom weights' and a 'comb', can be seen as a way of strengthening the textile production-related meaning for the entire seal face. There are many other combinations, however, that join together apparently unrelated motifs such as 'waterfowls' with 'spiders' or 'loom weights' (Fig. 2.9.f).[143] As a result, a single seal face with a textile production-related motif(s) cannot automatically be seen as a textile production narrative. Nevertheless, it seems entirely plausible that the very process of textile production itself prompted a wealth of iconographic references, especially in MM glyptic (Fig. 2.10). These references flourished alongside those reflecting other aspects of life, such as fishing, pot making, sailing, warfare, hunting and ritual.

There is no evidence to prove any direct connection between the image on a seal, its use and its user. However, the new thematic interpretations of motifs suggested above may lead to renewed discussions about potential semantic relationships between seal imagery and their significance as seals; and may also shed additional light on the possible identity of the seal bearers. Indeed, the single examples of textile tools stamped by seals showing 'spiders', 'interlaced bands' and, in Cyprus, 'loom weights', suggest that a direct association between the imagery of a seal and its use can sometimes be predicted.

Acknowledgements

I would like to express my thanks to Catherine Breniquet, Olga Krzyszkowska and Marie-Louise Nosch for their valuable comments on the draft of the presented methodology. I also thank two anonymous reviewers who, alongside other helpful comments, directed my attention towards the 'interlaced band' motif and its impressions on textile tools. Any errors remaining are my own.

Abbreviations

CMS *Corpus der minoischen und mykenischen Siegel*, vols I–XIII, Beihefte 1–10, for the full list, see https://www.uni-heidelberg.de/fakultaeten/philosophie/zaw/cms/cmsseries/theseries.html.

CHIC Olivier, J.-P. and Godart, L. (1996) *Corpus Hieroglyphicarum Inscriptionum Cretae*, Études Crétoises 31.

Notes

1 For a general résumé of the state-of-the-art and bibliography of Aegean glyptic, Younger (1991) (bibliography until 1989); Krzyszkowska (2005, 311–344); *Sphragis*, http://people.ku.edu/~jyounger/Sphragis/ (accessed 19 March 2019). For a general introduction and corpora of Aegean seals and sealings, *CMS* I-XIII; CMS Beihefte 1–10; Krzyszkowska (2005); CMS Arachne database, https://arachne.uni-koeln.de/drupal/?q=en/node/196 (accessed 19 March 2019).

2 These relationships are investigated within the ongoing research project 'Textiles and Seals. Relations between Textile Production and Seals and Sealing Practices in Bronze Age Greece' (2018–2021), funded by the National Science Centre, Poland, ref. no. 2017/26/D/HS3/00145, at the Faculty of Archaeology, University of Warsaw.

3 *E.g.* Burke (2010); Nosch and Laffineur (2012); Breniquet and Michel (2014); Harlow *et al.* (2014); Andersson Strand and Nosch (2015); Siennicka *et al*. (2018).

4 *E.g.* Boloti (2009; 2017); Crowley (2012; 2013).

5 For a possible correlation of 'horned animals' on seals from Middle Bronze Age Crete with wool production, Burke (2010, 47).

6 *E.g.* Panagiotakopulu *et al.* (1997, 423–425).

7 *E.g.* Burke (2010); Ulanowska (2016; 2017).

8 Burke (2010, 47).

9 The Bronze Age (BA) is divided into Early (EBA: 3100/3000–2100/2050 BCE), Middle (MBA: 2100/2050–1700/1675 BCE) and Late (LBA: 1700/1675–1075/1050 BCE) phases. The MBA on Crete period is also described as the Middle Minoan (MM) period, further divided into three phases: MM IA–B (2100/2050–1875/1850 BCE), MM II (1875/1850–1750/1700 BCE) and MM IIIA–B (1750/1700–1700/1675 BCE). After Manning (2010, tab. 2.2). For the textile production-related motifs examined in the 'Textiles and Seals' project, see https://data.textileseals.uw.edu.pl/iconography/search (accessed 8 June 2021).

10 *E.g.* Yule (1981, 66–69, 212–214); Poursat and Papatsarouha (2000); Krzyszkowska (2005, 92–95); Anastasiadou (2011; 2016).

11 Krzyszkowska (2005, 92); Anastasiadou (2011, 1; 2016).

12 Anastasiadou (2011, 63–115; 2016).

13 H. van Effenterre and M. van Effenterre (1974); Poursat (1980; 1989); Krzyszkowska (2005, 95); Anastasiadou (2011); Younger (2018, 348).

14 Anastasiadou (2011, 5–10).

15 Anastasiadou (2011, 58–59).

16 Anastasiadou (2011, 327, 13): the term 'device' is used 'to refer to iconographic units meant to be seen as entities'.

17 Anastasiadou (2011, 373, 376; 2016, 120).

18 Anastasiadou (2011, 349–350).

19 Breniquet (2008, 269–341).

20 Baccelli *et al.* (2014, 114–118).

21 For initial methodological assumptions on recognising textile motifs in Aegean glyptic, Ulanowska (2017, 59–60), Nosch and Ulanowska (2021).

22 Ulanowska (2018a).

23 *E.g.* Ulanowska (2018d).

24 See notes 7–10.

25 Nosch and Ulanowska (2021).

26 https://data.textileseals.uw.edu.pl/iconography/search (accessed 12 June 2021).

27 Krzyszkowska (2012; 2017).

28 Panagiotakopulu *et al.* (1997, 423–425); Van Damme (2012).

29 Valamoti (2011).

30 Spantidaki and Moulherat (2012); Skals et al. (2015).

31 Jones (2015).

32 Rougemont (2007); Del Freo *et al.* (2010, 346).

33 Kaza-Papageorghiou (2011).

34 Nosch and Ulanowska (2021).

35 *CHIC*, 266–267.

36 *CHIC*, 15.

37 Jasink (2009, 75); DBAS – CHS Cretan Hieroglyphic: https://www.sagas.unifi.it/vp-394-dbas-chs-cretan-hieroglyphic-seals.html (accessed 19 March 2019).

38 Anastasiadou (2011, 253, pl. 68).

39 Vogelsang-Eastwood (1992, 2–3, 7–12); Granger-Taylor (2003).

40 Breniquet (2008, 272–274, figs 70.1, 70.4, 90.1).

41 Nosch (2014b, 24–30).

42 Breniquet and Michel (2014); Becker *et al.* (2016).

43 Nosch (2014a); (2015); Rougemont (2014).

44 *E.g. CMS* II,8 33; P.TSK05/499; Krzyszkowska (2012, 150, fig. 5).

45 Brogan *et al*. (2012).

46 Spantidaki and Moulherat (2012, 189).

47 Nosch *et al.* (in press).

48 1175 search results in *CMS* Arachne for the search-word '*Ziege*'.

49 *E.g.* P.TSK05/499, Krzyszkowska (2012, 150, fig. 5); *CMS* VI 177.

50 *CHIC*, 15.

51 *CMS* Arachne database. *CMS*, for the full list, see https://www.uni-heidelberg.de/fakultaeten/philosophie/zaw/cms/cmsseries/theseries.html (accessed 19 March 2019).

52 Anastasiadou (2011).
53 *CHIC*, 15, 328–329, 391–392.
54 Evans (1909, 207); *CMS* Arachne; DBAS – CHS Cretan Hieroglyphic database.
55 Meeting on the Hill, West House, Doumas (1992, pls 26–29).
56 Breniquet (2008, 93–95); Vila and Helmer (2014).
57 Barber (1991, 25, fig. 1.7); Vila and Helmer (2014, 31, 33, fig. 2.12).
58 Vila and Helmer (2014, 30–34).
59 Panagiotakopulu *et al.* (1997).
60 Panagiotakopulu *et al*. (1997, 423–425); Van Damme (2012, 167–168). However, silk moth cocoons cannot be obtained by tree-shaking, according to a personal communication from Dr Małgorzata Łochyńska from the Silkworm Breeding and Mulberry Cultivation Research Laboratory of the Institute of Natural Fibres and Medicinal Plants in Poznań.
61 Contra, Panagiotakopulu *et al.* (1997, 427–428); Van Damme (2012, 167).
62 Marinatos (1993, 195).
63 Nazari and Evans (2015).
64 Andersson Strand (2015, 43, 52).
65 *E.g. CMS* II,2 102a, II,2 119a.
66 *E.g. CMS* VS1A 325a, VII 15a.
67 Since depictions of human figures are very schematic, it cannot be excluded that some of the figures traditionally described as men (Anastasiadou 2011, 161–171) might have been intended to show a human figure without specified gender.
68 Nosch and Ulanowska (2021).
69 *CMS* Arachne database.
70 *CMS* Arachne database; Anastasiadou (2011, 257–258, pls 75–78).
71 *E.g. CMS* VI 68b.
72 Andersson Strand and Nosch (2015); Grömer (2016, 85–91).
73 *CMS* II,8 86; for discussion on the 'spindle and whorl' motif as a referent to a CH script sign, Nosch and Ulanowska (2021).
74 A cop is a cone-shaped mass of yarn wound around a spindle or other device.
75 *CHIC*, 16, 357, 367–386, 408, 414.
76 For a discussion on the possible function of this referent in seal inscriptions, Jasink (2009, 91–92).
77 *E.g. CMS* II,2 309a.
78 Andersson Strand and Nosch (2015).
79 Evans (1909, 186, 191).
80 Anastasiadou (2011, 232, pls 56–57).
81 *CHIC*, 16.
82 Jasink (2009, 26–28, 61–63, 89–92).
83 *E.g.* Barber (1991); Tzachili (1997); Breniquet (2008).
84 Breniquet (2008, 13–22).
85 *E.g.* Vogelsang-Eastwood (1992, fig. 30).
86 Breniquet (2008, 286–290, figs 78–90).
87 Brysbaert (2007).
88 Burke (2010, 23, 36–37); Brogan *et al*. (2012, 187); Landenius Enegren and Meo (2017).
89 Brogan *et al*. (2012, 187).
90 *CMS* II,2 262a; II,5 305; II,7 215.
91 *CMS* II,2 262a; VI 466.
92 *CMS* II,5 305; II,7 215. For a discussion on the 'murex shell' as a possible alternative for triton shells, see Nosch and Ulanowska (2021).
93 Barber (1991); Tzachili (1997); Andersson Strand and Nosch (2015).
94 Cutler and Andersson Strand (2018).
95 Cutler (2012; 2016; 2019); Gorogianni *et al.* (2015).
96 Hoffmann (1974); Barber (1991); Andersson Strand and Nosch (2015).
97 Mårtensson *et al*. (2009); Andersson Strand and Nosch (2015).
98 Burke (1997, 418–419; 2010, 44–47); for a detailed discussion of the interpretation of this motif, Ulanowska (2017).
99 Burke (2010, 45).
100 For a sitting 'weaver', Ulanowska (2017, 62–63).
101 *CMS* II,1 64a, Ulanowska (2016).
102 Ulanowska (2018c, 59–60).
103 Evans (1909, 113); Weingarten (1991, 12–14); *CMS* Arachne database; Anastasiadou (2011, 226–227, pls 53–55, 303–304, pls 197–109); Militello (2018). Basch (1976) for the interpretation of the pole with vessels as a raft and Younger (1995, 366), for a neutral description: 'vertical supports with globular attachments'.
104 Burke (1997, 418–419; 2010, 44–47); Militello (2018, 326).
105 Anastasiadou (2011, cat. no. 75).
106 Smith (2002, 292). Sopron vase, see Fig.4.5 this volume.
107 For an overview of the evidence, Ulanowska (2017, 60–61).
108 For the discussion with further references, Ulanowska (2017, 60).
109 Grömer (2016, 110).
110 Ulanowska (2018b); for Roman rigid heddles, Foulkes (2011).
111 Ulanowska (2018b).
112 Ulanowska (2018b, 206–208); Nosch and Ulanowska (2021).
113 *CHIC*, 342–344.
114 *E.g. CMS* II,2 288c; III 206c; III 236a.
115 Evans (1909, 198–199); Jasink (2009, 124–125).
116 *CHIC*, 15.
117 Anastasiadou (2011, 239, pl. 60).
118 Breniquet (2008, 297–303); Ulanowska (2018b, 206–208).
119 Andersson Strand (2015, 32).
120 *E.g. CMS* IV 125b; VS1A 325b.
121 *E.g. CMS* II,2 302a–b.
122 *CMS* Arachne database; Anastasiadou (2011).
123 MET, inv. no. 31.11.10; Archaeological Museum of Ancient Corinth, inv. no. CP 2038.
124 *E.g. CMS* II,5 167; II,8 24.
125 *E.g.* from Chamaizi (HMp3517, *CMS* II,6 153) and Palaikastro (PK/91/3223, *CMS* II,6 243; Aj.N.AM 6833A, *CMS* VS1A 61).
126 Militello (2007, 43); Burke (2010, 74); Del Freo *et al.* (2010, 351, n. 55); Nosch (2012, 304–305).
127 Nosch (2012, 314).
128 Grömer (2016, 125–127).
129 *E.g.* Doumas (1992, pls 7, 12); Jones (2015, especially 121–122, 143–153).
130 *CHIC*, 16; *CMS* Arachne database; Jasink (2009, 126); Anastasiadou (2011, 245, pl. 63); DBAS – CHS Cretan Hieroglyphic database. https://www.sagas.unifi.it/vp-394-dbas-chs-cretan-hieroglyphic-seals.html (accessed 19 March 2019).
131 Evans (1909, 197–198; 1921, 358; 1952, 22); Nosch (2012, 305).

132 Ulanowska (2016).
133 Vogelsang-Eastwood (1992, 40–42, figs 50–52).
134 Breniquet (2008, 376–375, fig. 108).
135 *E.g.* Black and Green (1992, 182).
136 For a detailed overview of the myth of Arachne in relation to weaving, *e.g.* (Tzachili 2012).
137 Foelix (2011).
138 *CMS* Arachne database, Anastasiadou (2011, 191–192, pls 31–34).
139 Breniquet (2008, 290, fig. 79.1, 6, 11, 13).
140 Nosch and Ulanowska (2021).
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142 *E.g. CMS* VS1A 369; XII 239.
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Chapter 3

Textiles and iconography in the Bronze Age Aegean scripts: TELA logogram and the ligatured endogram *TE*

Rachele Pierini

Abstract

This paper explores the iconography of ancient textiles using a palaeographic analysis of the logogram TELA to represent textiles in the Bronze Age Aegean scripts of the 2nd millennium BCE. It also investigates the earliest iconographic examples of writing practice, given that the boundaries between art and script are blurred during this period. Such an approach is particularly fruitful when applied to as yet undeciphered scripts, such as the Cretan Hieroglyphic and Linear A, since it allows some access to texts that cannot yet be read. This paper takes TELA+TE as a case study and its analysis uses as evidence: the loan words on Knossos textile terminology; the influence of Linear A scribal practices on the Linear B evidence from Knossos; and the palaeographic similarities between Linear A texts from the north coast of Crete and the earliest known evidence of Linear B.

Introduction

In the earliest evidence for writing of the Aegean during the Bronze Age (2nd millennium BCE) there are blurred boundaries between art and script. Within this framework, a palaeographic study is also an iconographic inquiry, especially when undeciphered scripts are at play. This is the case of a set of signs referring to textiles in Cretan Hieroglyphic (*c*. 1900–1650 BCE), Linear A (*c.* 1800–1450 BCE) and Linear B (*c.* 1450–1200 BCE). Linear B is the only Aegean script to have been deciphered and records the earliest known form of the Greek language (Mycenaean), whereas the language that Cretan Hieroglyphic and Linear A encode (Minoan) is still poorly understood. This paper explores the relationship between iconography and textiles by focusing on textile logograms in the Aegean scripts. In particular, it analyses TELA+*TE* as a case study.

During the archaeological excavation at the palace of Knossos on the island of Crete in 1900 CE, Arthur Evans brought to light epigraphic materials that provided evidence of hitherto unknown writing systems. By observing the shape of the inscribed signs, he quickly realised that three different writing systems were at play. He was also able to establish that all three writing systems were syllabic scripts with a strong logographic component and with signs for numerals. 'Syllabograms' represent phonetic unities whereas 'logograms' refer to complete words and thus have a specific value in that they identify objects or tangible realities. Both are expressed by means of drawings, which closely resemble the designed items in the case of logograms and the more stylised elements in the case of syllabograms. Numerals are expressed by means of vertical and horizontal strokes (units and tens, respectively).

Evans later named these scripts 'Cretan Hieroglyphic', Linear A and Linear B, and did so before the languages they encoded was known. He used the shape of the signs that made up these scripts to differentiate between the writing systems. He called 'Cretan Hieroglyphic' the writing system he interpreted as a sort of pictographic version of the Egyptian Hieroglyphs. He qualified the other two scripts as 'linear'. The shapes of the two 'linear' scripts, when compared to the decorative and calligraphic signs of Cretan Hieroglyphic, appeared to be more squared and linear. Next, he distinguished the two 'linear' scripts by arguing that one was older and the other more recent. Accordingly, Evans named the first 'Linear A' and the second 'Linear B'. Although this nomenclature is still in use, more recent

research and the discovery of new materials have revealed many aspects of these scripts and, in some cases, profoundly reshaped the interpretation of these writing systems.[1]

Potential similarities between Cretan Hieroglyphic and Egyptian Hieroglyphic have long been dismissed and Cretan Hieroglyphic is currently understood to be a logo-syllabic writing system that shares about 20 out of 100 signs with Linear A. Moreover, elements of the Cretan Hieroglyphic routinely understood as decorative patterns have more recently been recognised instead to be an integral part of the writing system. This demonstrates just how fluid were the boundaries between iconography and script in the earliest writing systems.[2] In particular, the debate is still ongoing as to whether some of the signs found on seals represent examples of a highly iconic script or of decorative elements.

Whereas Cretan Hieroglyphic and Linear A share only about a fifth of their signs with each other, Linear A and Linear B show a close palaeographic connection, sharing about 75% of the signs that make up their syllabaries. This characteristic has led to the conclusion that the two 'linear' writing systems are derived from one another, with Linear A having acted as a template for Linear B. However, this assumption has recently been challenged with the suggestion that it is more likely that a 'soft' process of script adaptation took place on the north coast of Crete because the Linear A from this area shows the closest palaeographic similarity to the earliest known evidence of Linear B.[3]

Against this background, it is worth focusing on those elements which have specific attributes. An element appearing in all three writing systems, for example, may offer up clues as to its meaning as might a sign that names an archaeological artefact, even though the script encoding it has yet to be deciphered. This paper will adopt this approach to investigate textile logograms by analysing TELA+*TE*,[4] a particular Linear B textile type, and its palaeographic ancestors in Linear A and Cretan Hieroglyphic.

Iconography in Aegean scripts: TELA+*TE* as a case study

Iconography plays a major role in Aegean scripts because it is an integral part of the writing systems themselves. In particular, logograms have a direct connection with the material object they refer to. Their shape itself makes the item recognisable in the context of the text. For example, the logogram for 'textile' in Linear B (Fig. 3.1.a), which is transcribed as TELA, represents a rectangular item with small vertical strokes at the bottom. This image immediately conveys information about the shape, which can be matched with the archaeological evidence.[5] In Linear B texts, additional detail such as the fibre used to make the textile or the colour of the fabric are expressed syllabically, *i.e.* by means of words spelled out in full. In particular, a specific textile type can be expressed either syllabically or by means of ligatures. A ligature (or ligatured sign) is obtained by inserting an endogram into the logogram, *i.e.* a syllabic sign written inside the logogram to specify a particular kind of object. By adding the endogram *TE* inside the generic logogram TELA, the ligature TELA+*TE* (Fig. 3.1.c) refers to the particular textile type that, expressed syllabically, is *te-pa*.

The meaning of *te-pa* is a matter of debate in Mycenaean studies. Although it has been related to the alphabetic Greek τάπης 'carpet',[6] such a comparison presents phonetic and morphological difficulties.[7] There is another suggestion that has long gone unnoticed:[8] *te-pa* could be the ancestor of the alphabetic Greek τήβεννα, *i.e.* the word that the Greek language uses for the Latin *toga*. From an etymological perspective, both τάπης and τήβεννα are loan words with Eastern origins and have an obscure formation.[9] A renewed focus on the hypothesis of *te-pa* as τήβεννα together with additional Near East parallels have added further weight to the interpretation of *te-pa* as a textile or an item of clothing rather than a carpet.[10]

Within this framework, it is useful to focus on four key elements. First, Linear B inherited the scribal practice of ligature from Linear A. This makes this writing convention a feature common to both writing systems. Therefore, an analysis of the Linear A ancestor of TELA+*TE* is crucial to providing a better understanding of the particular textile to which the Linear B ligature refers. Second, in addition to the tight palaeographic connection between the two 'linear' scripts, the backward projection of Linear B phonetic values to Linear A signs is possible in *c.* 72% of AB signs, *i.e.* signs that share the same palaeographic shape and phonetic value.[11] Signs constituting the Linear A ancestor of TELA+*TE* happen to fall within the group of those signs with a common phonetic value in both scripts, which are referred to as the AB signs. Third, although the language that Linear A and Cretan Hieroglyphic encode is scarcely intelligible, it is likely to be of non-Greek origins.[12] The noun *te-pa* is not an Indo-European word; this makes its analysis in the non-Greek context that

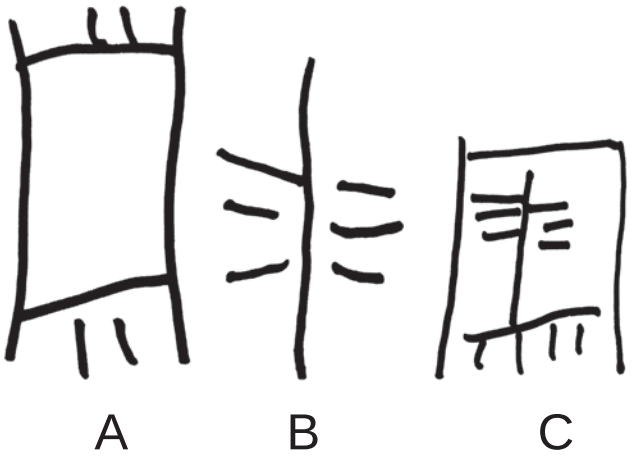

*Fig. 3.1. The Linear B signs for TELA and TELA+*TE*. After Bernabé and Luján (2006, 20, 56). A. Linear B logogram* *159 TELA 'cloth'. B. Linear B sign 04 =* te. *C. Linear B ligature TELA+*TE*.

Linear A and Cretan Hieroglyphic document particularly appealing. Fourth, in dealing with scripts that are as yet undeciphered, images play a central role since they are particularly helpful in elucidating meaning in contexts that can still not be properly read. In particular, Linear A logograms, as well as signs used logographically, are a primary source of information for understanding these writing systems. Recent research has further enhanced the understanding of Linear A documents by highlighting the point that the size of a logogram and the disposition of its ligatured elements have a direct connection with the reading order of the signs involved.[13]

Given these circumstances, TELA+*TE* can be examined in the context of Linear B documents where both textual and iconographic analyses are possible. This paper will now compare Linear A and Cretan Hieroglyphic data on the ligature before using images to shed light on a context that would otherwise be unintelligible. It concludes by combining data from this analysis with the evidence from archaeological artefacts.

The TELA logogram and the ligature TELA+*TE* in Linear B

Logogram **159* TELA 'cloth' (Fig. 3.1.a) is the generic Linear B sign for textile. By incorporating the syllabogram *te*, sign 04 of the Linear B signary (Fig. 3.1.b), inside the plain logogram TELA, the ligature TELA+*TE* (Fig. 3.1.c) is obtained. Syllabically, this item is referred to as *te-pa*. In Linear B texts, this type of textile is mainly referred to by means of the ligature TELA+*TE*[14] whereas the full spelling *te-pa* appears in only a few documents.[15]

In the large dossier of TELA+*TE*, the drawing of the ligature appears to be quite uniform. The generic TELA logogram primarily has the shape of a main rectangular body with small vertical strokes at the bottom, two laterals and often one in the middle (Fig. 3.1.a). Fringes that occasionally appear on its upper or lower edge account for scribal habits rather than textile quality.[16] Thus, in its basic form, the TELA+*TE* ligature is made up of the TELA logogram with the sign *te* placed inside the main rectangular space (Fig. 3.1.c). The sign *te*, in turn, is constituted by a vertical stroke and three horizontal and detached strokes, on both the left and the right side (Fig. 3.1.b).

On the basis of this broad contextual information, *te-pa* has been interpreted as a textile made of sheep wool and characterised as being heavy, large and rectangular, an item occasionally given as compensation to people serving in the palace and sanctuaries.[17] Moreover, *te-pa* is related to royal and ritual contexts[18] and is often described as a red item.[19] Because of the considerable amount of wool it requires, which is larger than any other Mycenaean textile, *te-pa* must indicate some kind of thick or heavy textile.[20] Its use in royal contexts and its description as a red textile point toward the interpretation of *te-pa* not only as a proper dress, rather than a carpet, but also as clothing to be worn by prominent figures when carrying out their duties.[21]

The Linear A ancestors: Signs AB 54 and AB 04

The sign AB 54 is commonly understood to be the palaeographic ancestor of both the Linear B logogram **159* TELA and the syllabogram 54 (= *wa*). Both uses, syllabographic and logographic, are displayed also in Linear A. In addition, AB 54 is attested, as a logogram,[22] in both its plain variant and ligatures.[23] A slight difference in shape can be detected in AB 54 according to whether it is used as a syllabogram or a logogram inasmuch as the former is 'linear' and square (Fig. 3.2.a) and the latter pictographic and round (Fig. 3.2.c). Moreover, it is worth noting that Linear B *wa* (Fig. 3.2.b) very closely resembles the shape of AB 54 used syllabically.

Not only does AB 04 belong to the large set of the homomorphic signs, it also happens to fall within the group of syllabograms of confirmed reading.[24] Therefore, the phonetic value *te* can be inferred with some confidence on a comparative basis. In terms of its drawing, the main difference with the following Linear B sign 04 concerns the number and the orientation of the lateral strokes. Whereas Linear B *te* shows three horizontal and detached lines on each side of the stem (Fig. 3.1.b), the lateral branches of AB 04 (Fig. 3.3) might vary in number and orientation. The former ranges from a minimum of two to a maximum of six lines per side respectively on tablets such as ARKH 2.1 and HT 8a.3. The latter is drawn with either oblique or horizontal lines, with a slight preference given to oblique strokes (except on documents from Khania, in which lateral strokes are consistently drawn horizontally).[25]

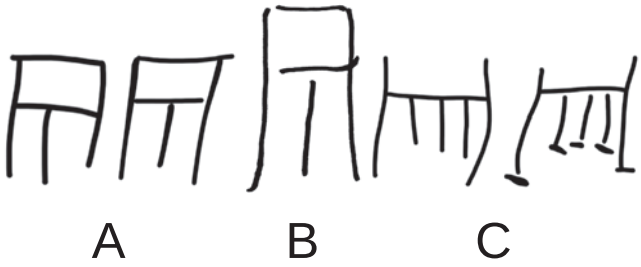

Fig. 3.2. Sign AB 54 in Linear A and Linear B. A. Syllabographic AB 54 in Linear A. HT 36.2 and 85b.4 (from SigLA). B. Linear B sign 54 = wa. *After Bernabé and Luján (2006, 20). C. Logogram AB 54 in Linear A. HT 16.2 and 20.4 (from SigLA).*

Fig. 3.3. Examples of AB 04 in Linear A. HT 17.1, 19.1, 21.2 (from SigLA).

The ligature AB 54+AB 04 on the Tel Haror inscription (TEL Zb 1)

A potsherd from a handmade *pithos* found in the Tel Haror site (in the Negev Desert, Israel, about 20 km east of the Mediterranean Sea) is the only evidence of Aegean scripts found outside the Aegean area. The Tel Haror site has uncovered in area K a building complex termed a cultic space because of the presence of features such as an offering altar, incense burners, zoomorphic vessels and human figurines. The *pithos* fragment TEL Zb 1, already broken in ancient times and without further sherds found nearby, can be dated to the late 17th or early 16th century BCE and interpreted as an *ex-voto* (Fig. 3.4).[26]

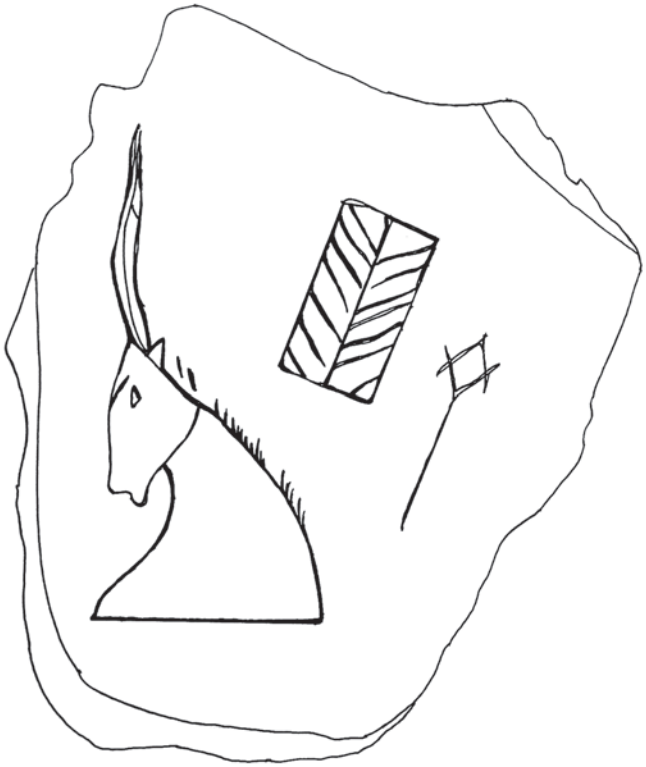

Fig. 3.4. The Tel Haror inscribed sherd. TEL Zb 1. After Oren et al. *(1996, fig. 1a, drawing by A. Russotti).*

Petrographic analyses have established its provenance to be the south coast of Crete (Myrtos Pyrgos) (Fig. 3.5). Epigraphic investigation has revealed that the three pre-fired incised signs the *pithos* fragment bears might be logograms representing commodities, namely – from left to right – a bull's head, the ligature AB 54+04 and a fig-tree. The function of the sherd, the meaning of its inscription and even why it was present at the site of Tel Haror have yet to be explained.

The ligature AB 54+04 that the *graffito* sherd bears is directly comparable to Linear B TELA+*TE*.[27] It remains a matter of debate as to whether this inscription belongs to the Cretan Hieroglyphic or to Linear A.[28] It is also difficult to place the inscription within known Aegean palaeographic traditions.[29] The drawing of the endogram AB 04 on TEL Zb 1 has two important elements: the number and the orientation of the lateral strokes. As already mentioned above, in the Linear B attestations the lateral strokes of AB 04 are three in number and horizontally oriented, whereas these elements may vary in the Linear A documents, being up to six in number and both horizontally and obliquely orientated. A comparison of the data from the two 'linear' scripts reveals that Linear A attestations show both of these orientations in all the archives except for Khania (which only shows horizontally oriented lateral branches); by contrast, Linear B shows only the horizontal orientation. Interestingly, Khania is located on the north coast of

Fig. 3.5. Bronze Age sites on Crete. After Del Freo and Perna (2016, 4).

Crete where the process of script adaptation from Linear A to Linear B is thought to have taken place.[30] The inference here is that the oblique orientation is a palaeographic archaism that has not been carried over into Linear B. Similar inferences can be drawn by examining Linear A data from a diachronic perspective. It is significant that the two tablets showing the drawing of AB 04 with six lateral (and oblique) strokes all come from Hagia Triada and Phaistos, *i.e.* HT 8a.3 and PH 13c. Given that these two sites were located on the western end of the central part of Crete (Fig. 3.5), they can scarcely have contributed to the palaeographic development of the subsequent Linear B script since the process of script adaptation took place on the north coast of Crete.[31] Taking into account this data on the palaeographic isolation of these two archives as well as the chronology of Linear A tablets from Phaistos (*c.* 1750–1700 BCE), stratigraphically higher than the other Linear A deposits (*c.* 1500–1450 BCE),[32] it could be argued that the oblique orientation of the lateral strokes of the sign AB 04 is a palaeographic archaism. Although there is still insufficient evidence to conclude with certainty that this data resolves the question of the script to which the Tel Haror sherd belongs, this consideration adds weight to the higher chronology of the artefact – and it offers a starting point from which to investigate further its palaeographic tradition.

As Nosch points out,[33] the ligature AB 54+04 has an appealing parallel in the ladies' dresses on the 13th century BCE Tanagra *larnax* (small closed coffin or urn) (Fig. 3.6). This artefact comes from the tomb 6 of the Gephyra cemetery at Tanagra from which more than 50 *larnakes* have come to light, most of them dated to Late Helladic period IIIA2-B (*c.* 1300 BCE, corresponding to the peak of the Mycenaean civilisation). The long side of the *larnax* on which the ladies' dresses appear portrays five women pulling at their hair and with their mouths wide open to pronounce the funeral lament. The scene is a ritual procession of mourning women.[34] Although there is insufficient evidence to fully sustain the comparison between the pattern of the ligature on TEL Zb 1 and the ladies' dresses on the Tanagra *larnax*, certain characteristics stand out. First, both artefacts are related to ritual, and ritual is also the content of the Linear B tablets that record TELA+*TE*. Second, if there is indeed a common origin for AB 04 and the pattern on the Tanagra skirts, it might follow that the same feature has evolved following two different paths. On the one hand, the evolution of the scripts has progressively simplified the AB 04 drawing, from a sign with up to six lateral and oblique strokes in the earliest Linear A attestations to a sign with three horizontal lateral strokes on Linear B documents. On the other hand, the original shape might have been retained as such in the decoration of textile items such as the skirts used in ritual procession. If further research strengthens the likelihood of a relationship between the patterns on TEL Zb 1 and the ladies' dresses, which seem to resonate with one another, this would add weight to the hypothesis that iconography and script might have mutually influenced each other or have had a bi-directional course.[35] Finally, should the relationship between the ligature on the sherd and pattern on the skirts be confirmed, this would strengthen the hypothesis that *te-pa* is a dress that was worn by people when performing their ritual roles.

Fig. 3.6. Detail from the Tanagra larnax *(13th century BCE). Thebes, Archaeological Museum. Length: 1.08 m; height 0.70 m. After Nosch (2012, 319).*

Cretan Hieroglyphic precursor(s)

The TELA logogram appears to have had its palaeographic origin in Cretan Hieroglyphic logogram **163* (Fig. 3.7.a), which is shown on the medallion *CHIC* #103.b, from the *Dépôt hiéroglyphique* at Malia and dated to the final phase of the Middle Minoan period (*c.* 1650 BCE). In its iconography, logogram **163* appears as a long and tiny rectangle with many fringes on both upper and lower sides. The sign inside it on #103.b does not correspond to any of the signs known thus far, thus making it difficult to decide whether it is an endogram. The comparison between the AB logogram for TELA and the Cretan Hieroglyphic logogram **163* is a matter for debate, mainly because in the *CHIC* sign **163* is associated with AB 131 (Fig. 3.7.b). AB 131, in turn, is also linked to the sign 041 (Fig. 3.7.c),

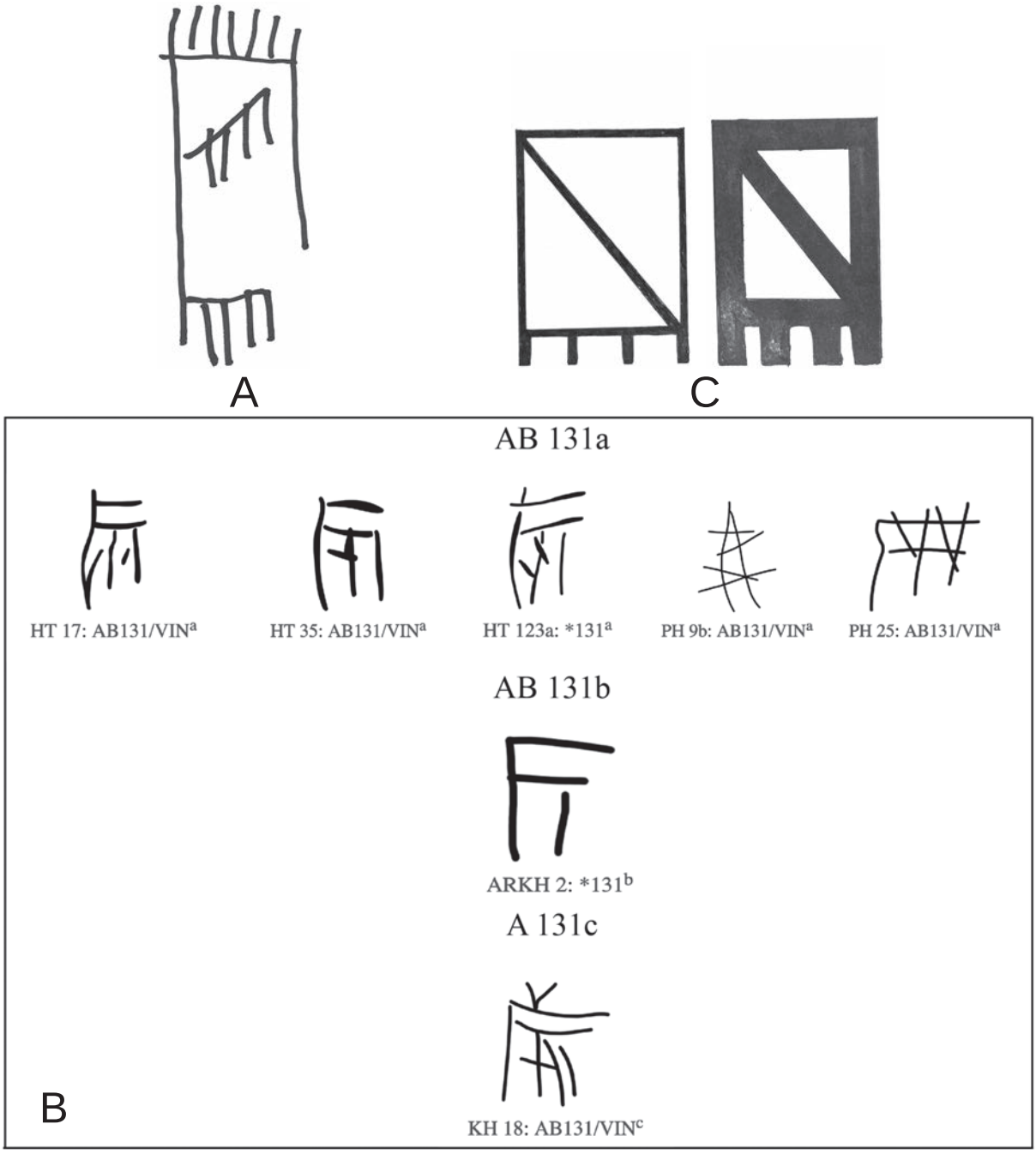

Fig. 3.7. Cretan Hierogplyphic precursor(s) of the TELA *logogram. A. Cretan Hierogplyphic sign* *163*. Malia #103.b. After Nosch (2012, 307). B. Main palaeographic variants of AB 131 (from SigLA). C. Cretan Hierogplyphic sign 041 (after* CHIC *17, drawing by A. Russotti).*

which functions syllabically and has some differences in the way it has been drawn.[36]

A different connection?

Salgarella[37] has pointed out that none of the representations of AB 131, coming in three different variants (AB 131a, AB 131b, AB 131c) throughout the corpus of Linear A inscriptions, exhibit the close vertical line on their upper right side shown in *CHIC*. However, it is worth making a further comparison by stressing the similarity between one of these variants as a ligatured sign, namely AB 131a+AB 04 [= A 588] on KN Zb 34 (Fig. 3.8.a), and the ligature on the Tel Haror sherd (Fig. 3.8.b).[38]

Linear A logograms have recently been analysed on the basis of the size and position of the signs which form them.

As a result, they have been distinguished in composite signs and ligatures.[39] In the former case, the additional sign is a component of the logogram itself (and possibly of the spelled word as well) and is added as a smaller sign to the right of the biggest sign. In the latter case, the additional sign acts as an endogram since it is placed in the body of the main sign. According to this classification, both AB 131a+AB 04 [= A 588] on KN Zb 34 and AB 54+04 on TEL Zb 1 can be classified as ligatures in that they show a sign that is contained within the main logogram. There are further shared elements that merit additional comment. First, AB 131a+AB 04 [= A 588] corresponds to VIN+*TE*, 'wine' being the commodity to which AB 131a refers. Next to the ligature AB 54 + AB 04, the *graffito* sherd records the logogram for the 'fig-tree', an agricultural product that – along with wine – was used in religious contexts and for ritual purposes.[40] Second, both inscriptions are found on vessels (*pithoi*), a characteristic also underpinned by their classification as Zb. These data favour the interpretation of the ligature on the sherd as wine, given that *pithoi* were specifically meant to contain wine. In addition, the relationship between artefacts and the texts they bear is particularly secure if what is inscribed is either the owner's name or the content of an item to be shipped.[41] The latter seems to be the case with this potsherd, made in Crete and found on a Palestinian site. Finally, both inscriptions come from central Crete. Even though differing in number, the lateral branches present an oblique angle in both texts. It is noteworthy that data seem to show a connection between the orientation of the lateral strokes in sign AB 04 and the geographical origins of the inscription.

As mentioned earlier, within the Linear A corpus, lateral strokes of AB 04 might appear obliquely or horizontally positioned and some evidence suggests that such a disposition has a connection with the geographical provenance of the attestations.[42] Located in the central part of the island, the site of Archanes has produced two examples of AB 04 with lateral lines that are obliquely oriented. Likewise, in inscriptions from east and south-east Crete, *i.e.* the deposits of Malia and Zakros, similar characteristics can be observed. Even though examples with horizontal branches are slightly more plentiful here, the oblique disposition is still prevalent. In the central sites of Knossos and Phaistos, as well as in the central-south deposit of Hagia Triada, despite a more uniform situation, a subtle preference for the oblique orientation can still be traced. In particular, in Hagia Triada, the oblique disposition appears highly prevalent on seals. The picture emerging for Khania, on the north coast of Crete, however, is drastically different. Texts from this site systematically show a fixed pattern in which AB 04 is regularly drawn with horizontal strokes that are consistently found in sets of three. This is exactly what can be seen in Linear B texts, where the only drawing thus far found of *te* shows horizontally oriented strokes in a set of three (cf. Fig. 3.1.b).

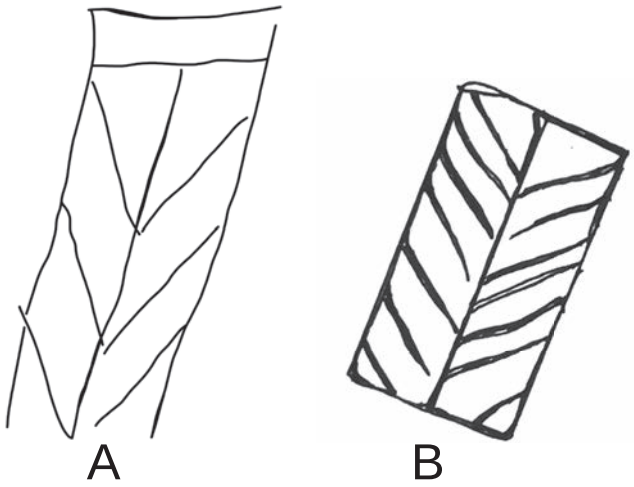

Fig. 3.8. Ligatured signs in Linear A and on the Tel Haror sherd. A. AB 131a+AB 04 [= A 588] on KN Zb 34. After Salgarella (2018, appendix 174). B. Detail of AB 54+04 on TEL Zb 1. After Oren et al. *(1996, fig. 1a, drawing by A. Russotti).*

Conclusion

The case study of TELA+*TE* presented here highlights the range of criteria involved in understanding the use of iconography in the study of the Bronze Age Aegean scripts, where blurred boundaries between art and script characterise in particular the earliest attestations of the writing practice. Within this framework, the palaeographic analysis of a particular sign also becomes an iconographic inquiry, especially when dealing with scripts that have yet to be deciphered. The analysis of TELA+*TE* on the Linear B tablets, which are so far the only readable documents, has elucidated that *te-pa* is a loan word. The non-Greek origin of this noun, combined with the fact that evidence for the term is almost exclusively found in Knossos, fits perfectly within the Knossos textile terminology which – though plentiful – does not include Indo-European words, which are to be found only in documents from the mainland.[43] It is also noteworthy that the attestations of the ligature significantly outnumber those of the spelled word. This might hint at the fact that particular Linear A scribal practices were still actively used on the island of Crete at the time of Linear B texts. Moreover, the palaeographic and iconographic analysis of the sign AB 04 adds further weight to the hypothesis that Linear A texts from the north coast of Crete show the closest similarity to the earliest known evidence of Linear B.

The development of Linear A might also be better understood by cross-checking palaeographic data from documents against the chronological data from archaeological sites. Furthermore, the analysis of the ligature throughout the corpus of Aegean scripts highlights the association between this feature and the ritual context. It would be tempting to include the ladies' dress on the Tanagra *larnax* as a further example of this but, regrettably,

there is still insufficient evidence to support this interpretation. However, exploring comparisons between texts and artefacts offers a cogent direction for future research. It may not be possible at this early stage in the research to conclusively demonstrate particular relationships, but further work will hopefully reveal new and exciting insights into the shapes, iconography, textiles and language of Bronze Age Crete.

Acknowledgements

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Abbreviations

CHIC Olivier, J.-P. and Godart, L. (1996) *Corpus Hieroglyphicarum Inscriptionum Cretae*, Études Crétoises 31. Athens and Rome, École française d'Athènes and École française de Rome.

DELG Chantraine, P. (2009) *Dictionnaire étymologique de la langue grecque: histoire des mots*, achevé par J. Taillardat, O. Masson and J.L. Perpillou, avec en supplément les Chroniques d'étymologie grecque (1–10) rassemblées par A. Blanc, de C. Lamberterie and J.L. Perpillou. Paris, Klincksieck.

EDG Beekes, R. (2010) *Etymological Dictionary of Greek*, I–II. Leiden, Brill.

DMic Aura Jorro, F. (1985–1993) *Diccionario micénico*, I–II. Madrid, Consejo superior de investigaciones científicas.

SigLA The signs of Linear A: a palaeographical database, https://sigla.phis.me/ (accessed 21 June 2021).

Notes

1 For a recent overview of Cretan Hieroglyphic, Linear A and Linear B see, respectively, Karnava (2016); Perna (2016); Del Freo (2016).
2 Ferrara *et al.* (2016); Decorte (2017).
3 Salgarella (2018).
4 Textile logograms are to be included among the archaeological artefacts after Nosch (2012, with further references and details, especially nn. 5–7).
5 Greek clothing is regularly based on a rectangular pattern, whereas other civilisations, *e.g.* the Romans, used a variety of forms: Bonfante Warren (1973, 585).
6 *DMic s.v. te-pa*.
7 Nosch (2012); Luján (2014); Pierini (2018).
8 Peruzzi (1975).
9 *DELG s.vv.* τάπης and τήβεννα as well as *EDG s.vv.* τάπης and τήβεννα.
10 Pierini (2018).
11 Steele and Meissner (2017).
12 Duhoux (1978).
13 Salgarella (2018).
14 KN Ap 5748, Lc 525, 526, 527, 529, 530, 532, 533, 536, 541, 543, 547, 551, 553, 558, 561, 646, 5746, Le 641, 642, 5629, 5646, 5903, 5930, 6014, Ln 1568, L 5660, 8160, Ws 8153; PY La 624, 1393, Un 6. The sealing KN Wm 8493 might be added to this list: Driessen (2000, 209).
15 KN L 5090, Ws 8153, X 1432 and MY Oe 107.
16 Nosch (2012, 308–309).
17 Nosch (2012, 325). Of the three different types of *te-pa* apparently shown by Linear B tablets, namely *pe-ko-to* TELA+*TE*, *mi-ja-ro* TELA+*TE* and 'unqualified' TELA+*TE* (Firth 2012, 229), we can assume that both *mi-ja-ro* TELA+*TE* and 'unqualified' TELA+*TE* refer to the same type of textile, Killen (1987). Even though there may be insufficient documentation and technical knowledge to clearly understand its meaning, Del Freo *et al.* (2010, 357–358), *pe-ko-to* seems to denote textiles with the external side characterised by a hairy and fine appearance, Luján (1996–1997, 345–346); *mi-ja-ro*, on the other hand, could refer to uncombed woollen fabrics with a rough appearance (Firth 2012, 232) or dyed clothing (Luján 2010, 381).
18 On KN Lc 525 it is specified that the recorded units of TELA+*TE* are *wa-na-ka-te-ra* 'royal', whereas on PY Un 6 the ligature appears together with two religious figures, namely *i-je-re-ja* 'priestess(es)' and *ka-ra-wi-po-ro* 'key-bearer(s)'.
19 In three entries these red items are specifically said to be for guests or foreigners: Firth (2012, 240).
20 Seven units of wool are needed for the type TELA+*TE*, whereas the type *pe-ko-to* corresponds to ten units of wool: Nosch (2012, 325).
21 Pierini (2018).
22 For an in-depth description of AB 54 used logographically and its contextual evidence, see Del Freo *et al.* (2010, 351–353).
23 The syllabographic use of AB 54 is to be found on PK Za 11, HT 6b.1, 36.2, 85b.4, 86.a3, 128.a2, Wc 3005, 3007, 3008, IO Za 2a.1, MA 10b.1, IO Za 3, ARKH 2.5, ZA 6.a1, 10b.1, TY 3a.6 (see also Salgarella 2018). As a logogram, it appears in its plain variant on the roundel HT Wc 3019 and the tablets HT 16.2, 20.4, whereas the ligatures are seen on THE 8.2 (AB 159+ AB 09?) and twice on HT 38.3, with two different endograms, respectively: AB 159+AB 81 (= A 535) and AB 159+AB 312 (= A 536).
24 Olivier (1975); Godart (1984).
25 Salgarella (2018).
26 See further references and details in Oren (1993); Oren *et al.* (1996); Day *et al.* (1999); Olivier (1999, 2010); Karnava (2005); Del Freo *et al.* (2010); Nosch (2012); Petrakis (2012); Ferrara *et al.* (2016).
27 Del Freo *et al.* (2010); Nosch (2012).
28 Oren *et al.* (1996).
29 Petrakis (2012, 78).
30 Salgarella (2018). See also the introduction to this paper and what follows below.
31 Salgarella (2018, in particular 162–171).
32 Perna (2016, 93–94).
33 Nosch (2012, 319).

34 On this Tanagra *larnax*, see Demakopoulou and Konsola (1981, 85). For an in-depth analysis of the Tanagra *larnakes*, see, most recently, Kramer-Hajos (2015 with further references and details).
35 Decorte (2017).
36 Oren *et al.* (1996, 101–102 and n. 6); Day *et al.* (1999); Karnava (2005); Del Freo *et al*. (2010); Nosch (2012).
37 Salgarella (2018).
38 Petrakis (2012).
39 Salgarella (2018).
40 Palmer (1994); Nagy (2019).
41 Steele (2014).
42 The dossier of AB 04 in the Linear A corpus is to be found in SigLA, which also reports the drawing of both the tablets and the signs. The attestations of the sign are presented according to the provenance of the documents. Source: https://sigla.phis.me/index.html (accessed 21 June 2021).
43 Luján (1996–1997).

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Chapter 4

Loom or lyre: A dual reading of iconography from the Iron Age II site of *Kuntillet ʻAjrud*

Thaddeus Nelson

Abstract

Images from Iron Age ʻAjrud *(8th century BCE), Tell Batash (12th–10th century BCE) and Ashdod (11th–10th century BCE) show seated figures holding strung frames which have been identified as lyres. However, several technical features of the frames suggest that they could not have been musical instruments. This paper explores similarities between these images and strung frames found on 5th-century BCE Greek and 7th-century BCE Hallstatt ceramics and suggests that the Levantine iconography shows a textile process called sprang. If the Levantine images do show textile production rather than music, this will provide a new direction for research into the techniques used during the Iron Age. However, the constraints of the stylised painting and simplified carvings prevent a definitive identification of these frames as lyres or looms. This ambiguity provides an opportunity to reflect on the impact of these tools on Iron Age perspectives.*

Introduction

Kuntillet ʻAjrud is a small Iron Age II (early 8th century BCE) site located in the Sinai Peninsula.[1] Excavations in the 1970s not only revealed two structures containing a caravan stopping place but also sparked a scholarly discourse around the meaning of ancient iconography. This discourse focused on a collection of sherds containing text and images.[2] The religious subject matter shown on these sherds led scholars to question the identities of a set of humanoid figures; are they humans or deities and, if they are deities, which ones? Although this debate has enriched our understanding of Iron Age religious practices, this paper will largely set that aside to ask a new question about the iconography from *Kuntillet ʻAjrud*: does the image of a seated woman show a musician or a weaver (Fig. 4.1)?

One of the sherds shows a woman sitting behind two bovine humanoids, possibly Egyptian-derived gods identified as *Bes*. However, it is likely that the seated woman, the bovine figures and the text were added at different times by separate authors.[3] In order to avoid the dangers of conflating the levels of this palimpsest, this paper will focus primarily on the seated woman. This woman holds a nearly rectangular frame on which threads stretch from top to bottom. She is described by multiple authors as a lyre player.[4] Yet, there are technical problems with the lyre that suggest this identification may be incorrect. If the image does not show a lyre, then what does it show? This review of nearly contemporaneous art from Greek and Hallstatt vessels suggests that the seated woman from *Kuntillet ʻAjrud* may have held a frame used in the textile technology of ʻsprangʼ (see below) and not a lyre. This interpretation has wider implications for reconstructions of Iron Age Levantine technology and religion.

Context of the image

The site of *Kuntillet ʻAjrud*, or *Horvat Teman*, is located in the Sinai Peninsula. Ze'ev Meshel led a team that excavated there in the 1970s. The project recovered evidence of daily life in a caravan stopping place dating from the early 8th century BCE. Evidence of everyday activities included pottery, loom weights, fabric and faunal remains.[5]

Fig. 4.1. The seated figure from Kuntillet ʻAjrud *with strung frame, 8th century BCE. Drawn from Meshel (1978, 12). Drawing: Author.*

Fig. 4.2. The seal from Tel Batash showing seated figure with strung frame, 12th–10th century BCE. Drawn from Braun (2002, 155). Drawing: Author.

These finds show that, even in a desert waypoint, people performed routine household activities such as cooking and weaving.

The best known artefact from the site is a pottery sherd that invokes the blessing 'by Yahweh, our guardian and by his Asherah'.[6] This has refocused most discussions about the site on the religious aspects of Iron Age II life in the Levant.[7] Textiles recovered at the site include some made of linen and wool, a mixture that was normally prohibited to all but religious officials.[8] These finds demonstrate that domestic and ritual practices coexisted even in this relatively small and isolated site.

The seated lady and her lyre

The seated lady shown on the sherd from *Kuntillet ʻAjrud* holds a frame that is strung with a set of taut threads. Multiple authors have described the frame as a lyre, possibly associated with religious connections to these instruments in the Levant.[9] Yet even the earliest published descriptions of the art identify problems with the identification of a lyre. In the primary publication of the images, Beck notes that, if the images show the resonance chamber necessary for a lyre to produce sound, then the instrument is held upside down or sideways.[10] This suggests that the painting does not accurately depict a lyre. There is also a 'thick diagonal line crossing the lyre' that cannot be explained as part of the instrument.[11] The discrepancies are so severe that, in a later survey of Levantine images of lyres, Lowergren found it necessary to redraw the *ʻAjrud* lyre and wrote that it 'lacks details'.[12] These observations suggest that the frame, as it is still illustrated in the recently published final site report, does not look like a lyre that could actually be played.[13]

The artist who painted the seated woman did not work in a vacuum. Two seals that display similar images of seated lyre players come from the Iron Age Levant.[14] The similarities between all three pieces suggests that the problems with the lyre iconography from *ʻAjrud* may not be the mistake of a single artist but instead an example of a stylistic convention.

The first image similar to that of the seated woman from *ʻAjrud* is found on a seal from Tell Batash (12th–10th century BCE). On this, a seated person holds a strung frame in a pose identical to the painting from *ʻAjrud* (Fig. 4.2).[15] The seal clearly shows that the strings stretch from the top

Fig. 4.3. The seal from Ashdod showing seated figure with strung frame, 11th–10th century BCE. Drawn from Braun (2002, 155). Drawing: Author.

of the frame to its bottom. This arrangement does not leave any room for the resonance chamber one would expect on a lyre. An additional line is etched across the threads midway down the frame.

A seal from Ashdod shows a second image of a seated person. This individual sits on a high-backed chair with a strung frame. However, the seal shows an ‘incorrect hand position’ and too few strings on the frame for it to be a lyre (Fig. 4.3).[16]

Each of these three pieces shows a seated person with a strung frame. Although the frames share some similarities with a lyre, they have inconsistencies when compared to real lyres that would render them all unplayable. These minor problems may not be sufficient to disqualify their identification as lyres as it could be argued that the artists may have simplified the images in order to fit the media or to follow an artistic convention – or that they simply made mistakes due to their unfamiliarity with the subject matter. Yet given that here are three examples in which separate artists depicted seated people with strung frames, it is very possible that these were not inaccurate images of lyres but examples of some other object that was more accurately portrayed.

The identity of the seated figure from *‘Ajrud*

The painted sherds from *‘Ajrud* have been central to the debate about Iron Age II religious practices. Written prayers linking the worship of Yahweh and Asherah have revealed the syncretic nature of worship in this period and it is tempting to follow these suggestions when exploring the nature of the strung frames shown on Iron Age II images. Might evidence that the seated figure is Asherah lead to a new explanation for the frame? It is certainly true that nearly every characteristic of the seated figure has been questioned, including its gender, divinity and connections to other art from *‘Ajrud*.

The best known interpretation of the seated figure is that it shows a woman who may be the goddess Asherah and who is named in the nearby text.[17] Asherah is a Canaanite goddess generally associated with fertility.[18] In Canaanite contexts she is consort of the supreme god El. Mentions of Asherah in the Old Testament and at sites like *‘Ajrud* suggest she may also have been consort of *Yahweh.*[19] Her role may have included divine oversite of domestic tasks such as spinning and weaving.[20] However, identification of the seated woman from *‘Ajrud* as Asherah remains uncertain because the inscription, including the name ‘Asherah’, overlaps the illustrations and was written at a different time.[21] Furthermore, the seated figure is visually separated from the text and cow-headed deities because it faces the opposite direction. This suggests that it is not performing for the deities.[22] Without a connection to the nearby text mentioning Asherah or to the Bes figures, there is little evidence that the seated figure is divine.

Even if the seated figure is not Asherah, interpreting it as a woman could support the interpretation that the frame was a textile tool because weaving was most closely connected to women in the Iron Age II Levant.[23] However, the gender of the seated figure is also uncertain. For example, Hadley describes it as a man or even a prince.[24] This interpretation relies upon comparisons between the hair and dress of the *‘Ajrud* images and those shown in other Levantine art.[25] This is the self-same evidence that leads other authors to conclude that the image shows a woman.[26]

Even though the iconography from *‘Ajrud* has been the focus of decades of scholarly debate, there is as yet no consensus about the name, gender or status of the seated figure. Unfortunately, this does not help with the interpretation of the problematic strung frame. This paper, therefore, has to turn to other types of evidence to investigate the purpose of the strung frame.

If not lyres, then what?

If the seated figure from *‘Ajrud* and the two found on seals were not playing lyres, then what activity was it that the Iron Age II artists are recording? Comparisons with the art from other regions offer a means to reinterpret these

Fig. 4.4. Red-figure hydria (water jar) illustrating a woman with a handloom (right), 470–460 BCE. Art Institute of Chicago, no. 1911.456.

Levantine figures. Images from two nearly contemporaneous cultures are visually similar to the three Levantine examples: 5th-century BCE Attic red-figure vessels from Greece and a 9th-century Hallstatt urn. Even though these images come from different geographic regions, it is suggested that scholars' interpretations of these images can be used to interpret the Levantine art because the visual similarities in the frames and poses suggest that they may show the same technology or activity.

The Attic red-figure vases show seated and standing women with strung frames (Fig. 4.4). In his discussion of these frames, Clark describes them through an analogy to lyres because the shape of the frames is so similar to that of the instrument.[27] Like the Levantine images, the frames on the Greek vessels lack resonance chambers, making them unplayable. Clark suggests that the frames are tools used in textile production. As part of his evidence for this, he identifies fabric present on several of the frames that was in the process of being made.[28] Where this is the case, their use in textile production is unambiguous.

A second comparison is a Hallstatt urn from Sopron, Hungary, that shows five women socially interacting (Fig. 4.5). Barber identifies them as women by their style of dress.[29] Two of the women are involved in textile production: one weaves fabric on a warp-weighted loom alongside the second who spins using a drop spindle. Two of the other women stand with their hands in the air, possibly dancing. The fifth holds a strung frame in front of her (Fig. 4.6). Unfortunately, this image is less detailed than those on the Greek vessels. Barber writes, 'a fifth, shorter figure (male or female?) [is] holding a stringed instrument that is either a lyre or a frame for making a kind of plaiting called *sprang*'.[30] It is therefore impossible to arrive at a final interpretation of what this women is doing: weaving, spinning or dancing, she straddles the line between music and textile production.

In the cases of both the Greek and Hallstatt vessels, authors recognised the immediate visual similarities between lyres and textile frames. The three seated figures from the Iron Age Levant share features with these other images. The Levantine frames show technical problems similar to those found on the Attic red-figure vessels, such as the absence of a resonance chamber. The Levantine frames are also simplistic to the extent that they may appear to be ambiguous, like the Hallstatt frame. These visual similarities between artistic representations and the flaws in the Levantine 'lyres' suggest

Fig. 4.5. Hallstatt urn from Sopron (Várhely), western Hungary, 7th century BCE. © Naturhistorisches Museum Wien, no. 35.424. Photo: K. Grömer.

Fig. 4.6. Detail showing a person holding a strung frame in front of her. Naturhistorisches Museum Wien, no. 35.424. Photo: Wikimedia Commons (CC-BY-SA-4.0).

that the Levantine images may show the same textile tools identified in the Hallstatt and Greek iconography.

The technique of sprang

Clark and Barber suggest that the Greek and Hallstatt images both show the same textile production technique called ‘sprang’. Sprang is a way of making fabric similar to the children’s game of ‘cat’s cradle’.[31] Sprang textiles consist only of a single set of threads that are roughly analogous to the warp on a loom. The weaver stretches these threads between the top and bottom of the frame in a similar way to the threads shown on the three Iron Age II images. The weaver forms sprang ‘textile’ by moving the threads across each other, creating fabric at both the top and bottom at the same time.[32] The weaver places a stick between the threads in order to keep them from unweaving until they meet in the middle. These aspects of sprang are visible on the Attic red-figure vessels, demonstrating that these were indeed sprang frames.[33]

Among archaeologists, the technology was largely unknown until Elizabeth van Reesema suggested that they explore it in their research. Her work included experiential

components in which she demonstrated the technique.[34] One image in her publication shows her working in a nearly identical pose to the women on Attic red-figure vases and the seated Levantine figures. She sits on a chair holding the frame erect in her hands. She has created a thin strip of sprang fabric, which has a similar ratio between the frame width to the two threads on the two Levantine seals.[35]

Evidence for sprang in the Levant

Given the similarities between the Levantine seated figures and the Greek and Hallstatt sprang frames, it is important to consider the evidence for Iron Age II weavers using sprang. Although no examples of sprang have been recovered from Iron Age II contexts, this may be because textiles are rarely preserved; and archaeologists must instead rely on other evidence to reconstruct the history of textile production. For example, Fischer argues that these head coverings so commonly seen in Iron Age Levantine art show garments that inspired Greek sprang.[36] Perhaps these images show earlier versions of the sprang hairnets reported in the Levant from the Roman Period.[37]

Textile remains from nearby regions show that a knowledge of sprang in South-west Asia and northern Africa pre-dates the Iron Age II. Some of the earliest examples of sprang come from the site of Arslantepe, in Anatolia. During the 4th millennium BCE, inhabitants of the site used sprang ribbons as parts of sealings.[38] These examples support an early date for sprang in South-west Asia. Closer to the Levant, a fragment of sprang was reported from a 22nd Dynasty context in Egypt, a discovery which makes it nearly contemporaneous with the Iron Age II images.[39] This material evidence shows that sprang had a long history in the region geographically surrounding the Levant.

The impact of sprang in Iron Age iconography

Reinterpreting the frames held in Iron Age Levantine images has implications for the broader understanding of the period. The most obvious ramification is that if these frames were used to produce sprang, it would be the first Levantine evidence for this technique during this period. This would fill in a gap and geographically link the historical ranges of sprang in Europe, South-west Asia and Egypt.

Evidence for sprang production would also enrich the understanding of textile production and labour organisation in the Levant. It would explain how Iron Age people produced some, or all, of their small fabric objects, such as the head coverings shown in images from the period. There is no textual or archaeological evidence as to how these specific types of textiles were manufactured. Although the warp-weighted loom is well attested in the period, it is best suited for making large textiles.[40] Each piece of fabric woven on warp-weighted looms requires an organised and time-consuming process of preparation before weaving can begin.[41] Using sprang to produce small, stretchy fabrics followed a different production process. It would have provided an added advantage of mobility during work, because the small frame, unlike the larger looms, could be easily moved. In a world where textile production was a daily and necessary task, these benefits would have provided weavers with flexibility to perform other activities or to do more than one task at a time.

The identification of the strung frames as sprang also has implications for the larger issue of interpreting the images from *'Ajrud*. Alongside the seated figure are two cow-headed Bes and the text asking for the blessing of Yahweh and his Asherah. Ackerman identifies Asherah as the regional goddess of textile production, explicitly drawing on analogies to images of other goddesses holding textile tools.[42] If the seated figure from *'Ajrud* similarly holds a textile tool and is located near a text mentioning Asherah, it provides further support for this connection between the goddess and weaving.

A more cautious approach to the *'Ajrud* iconography would be to identify the seated figure as a worshipper manufacturing specialised ritual textiles. There is plenty of evidence in South-west Asia for the production of textiles for religious practices, either as clothing for priests or as garments to place on religious statues.[43] For example, the Old Testament records that only priests were allowed to wear special *Sha'atnez* textiles woven from a mixture of wool and linen.[44] Three *Sha'atnez* fabrics found at *Kuntillet 'Ajrud* may be examples of these ritual textiles.[45]

The text of 2 Kings 23.7 describes women weaving garments for Asherah. 'He [Josiah] pulled down the house … which was in the Temple of Yahweh and where the woman wove clothes for Asherah.' Ackerman suggests an alternative reading, 'He [Josiah] destroyed the houses … where the women wove, the houses for Asherah'. However, the second interpretation is not supported by historical translations. Ackerman concludes that the text does not show Asherah as the goddess of weaving but instead demonstrates that clothing for the gods was manufactured in the temple.[46] If the seated figure from *'Ajrud* was manufacturing ritual fabrics, it could explain her presence on sherds that contain religious texts and iconography.

Conclusion

This paper argues that some of the lyres shown in three Iron Age II Levantine images were not lyres but textile frames. Comparisons with art from other areas suggests that these frames may have been used in the technique of sprang, though it is also feasible that they might have been some other type of small loom. Sprang frames offer the most convincing suggestion; and it seems more prudent to follow Barber's interpretation of the Hallstatt urn and suggest a

dual reading of the Levantine figures. These figures might be either musicians or weavers, but without the archaeological or textual evidence to point one way or another, the interpretation remains balanced between the two, much like the woman from the Hallstatt urn.

It may never be possible for historians or archaeologists to decide whether the strung frames discussed here were used to make textiles or to make music. However, drawing an analogy with evidence from 1st millennium Greece suggests weaving and music may not have been distinct and separate spheres but activities linked together in the social consciousness.[47] Both weaving and music make sounds in a rhythmic pattern. In weaving, this may be through loom weights colliding or through the plucking of threads so familiar to lyre players. There are also visual similarities between the threads on a lyre and the dressed loom or sprang frame.[48] The people of the Iron Age II Levant were exposed to similar experiences to the Greeks, including warp-weighted looms and lyres. Perhaps it is for the very reason that the visual and technical similarities between textile production and music are so close that it is so difficult to pin down the identity of the strung frames shown in the iconography from this period. The time may now have come to revisit the Levantine texts and iconography with this close similarity between textile and music production in mind.

Notes

1 Meshel (2012, xxi).
2 *E.g.* Dever (1984); Beck (2012).
3 Ahituv *et al.* (2012, 87); Beck (2012, 173).
4 *E.g.* Meshel (1978); Dever (1984); Beck (2012).
5 Ayalon (2012); Horwitz *et al.* (2012); Sheffer and Tidhar (2012).
6 Naveh (1979, 28).
7 Dever (1984, 22); Ahituv *et al*. (2012, 87).
8 Sheffer and Tidhar (2012, 307).
9 Dever (1984, 24); Braun (2002, 146).
10 Beck (2012, 169–172).
11 Beck (2012, 171–172).
12 Lawergren (1998, 55).
13 Beck (2012, fig. 6.4a).
14 Braun (2002, 155).
15 Braun (2002, 156).
16 Braun (2002, 156).
17 *E.g.* Dever (1984, 22–25); Margalit (1990, 288); Beck (2012, 171).
18 Dever (1984, 21).
19 Dever, (1984, 21–31); Ackerman (2008, 10–12).
20 Ackerman (2008).
21 Beck (2012, 173).
22 Hadley (1987, 196–202).
23 Ackerman (2008, 2).
24 Hadley (1987, 198–201).
25 Hadley (1987, 202).
26 Dever (1984, 22–25); Beck (2012, 171).
27 Clark (1983, 92).
28 Clark (1983, 94, figs 3, 5, 7 and 8); Jenkins and Williams (1985) identify an earlier source for this suggestion in the work of Jan Six published in 1920.
29 Barber (1994, 87–88).
30 Barber (1994, 87–88); see also Clark (1983, 96).
31 Barber (1991, 122–123).
32 Van Reesema (1926); Collingwood (1974).
33 *E.g.* Clark (1983, figs 3 and 4).
34 Van Reesema (1926).
35 Van Reesema (1926, fig. 5).
36 Fischer (2008, 34–37).
37 Shamir (2013, 335).
38 Frangipane *et al*. (2007, 8–9).
39 Van Reesema (1926, 5); Barber (1991, 122).
40 *E.g.* Sheffer (1981); Shamir (1996).
41 *E.g.* Hoffman (1974, 63–67).
42 Ackerman (2008).
43 *E.g*. Oppenheim (1949).
44 Shamir (2017, 166).
45 Sheffer and Tidhar (2012, 301–310).
46 Ackerman (2008, 18–19).
47 Nosch (2014, 94–95).
48 Snyder (1981, 195).

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Chapter 5

Abundance and splendour: Textiles of Archaic Greek statues of young women (*korai*)

Susanna Harris

Abstract

The statues of young women in 6th century BCE Greece are remarkable for their elaborate textile clothing. Despite this, the evidence from representations of textiles is frequently dismissed because the clothing portrayed is considered too unreliable and confusing to interpret. This paper seeks to redress this issue by identifying the type, number and quality of textiles represented as garments on these famous statues. It considers the history of research that led to this lack of clarity and assesses the textiles on statues in the light of the archaeological evidence. The results demonstrate the quality and quantity of textiles worn in these outfits and lead to a wider discussion of the significance of these abundant and splendid materials.

Introduction

Iconography, the most prevalent source for Archaic Greek textiles, is often rejected because the representation of textile clothing on statues is considered unreliable and confusing. This perspective can now change because new research into preserved textiles provides an evidential framework within which to compare iconography with contemporary textile techniques.[1] The aim of this paper is to interpret the textiles represented on the Archaic statues of young women (*korai*) by considering the number and quality of textiles used to make garments in the light of the preserved textile evidence. It argues that the representation of textiles on the near life-size statues of Archaic Greek young women displays details consistent with textiles known to have existed at the time. Applying an informed textile approach to two statues of young women from Attica, this research addresses how many and what kind of textiles were worn in each outfit. The results demonstrate the quality and quantity of textiles represented by the sculptors, provide a fresh interpretation of the clothing and indicate the sumptuous nature of the textile clothing worn by esteemed young women in 6th century BCE Greece.

Statues of elegantly dressed young women dating to the Archaic period (*c*. 600–480 BCE) are found across Greece. The Archaic statues of young women (*kore*, pl. *korai*) are monumental, realistic, though stylised, three-dimensional stone sculptures that were originally painted in bright colours, referred to as polychromy. Some were placed on the Acropolis as dedications to the gods, others are funerary monuments.[2] The statues follow a recognisable format, which is considered to be both generalised and highly individualistic.[3] Inscriptions on funerary statues sometimes identify the young women depicted by the statue, reinforcing the idea of them being portraits. At temples, statues may be goddesses or offerings to goddesses. Whether these women represent goddesses, such as Athena, Artemis or Hera, or young women from wealthy families, is still a matter of debate. Recently Catherine Keesling has argued that the Athenian Acropolis *korai* represent Athena.[4] Whether interpreted as deities or wealthy individuals, the quality and quantity of the textiles suggests that they wore the most valuable forms of clothing of the period.

The *korai* belong to a representational tradition based on observation of form, shape, scale and colour. The statues were carefully sculpted, engraved and painted; the features are deliberate and intentional. Sculpted in the round, the statues can be examined from multiple angles, leading to a fuller understanding than can be gained from two-dimensional

Fig. 5.1. Funerary statue of Phrasikleia. Height 2.11 m, 550–540 BCE. National Archaeological Museum of Athens, no. 4889. © Hellenic Ministry of Culture and Sports (Law 3028/2002).

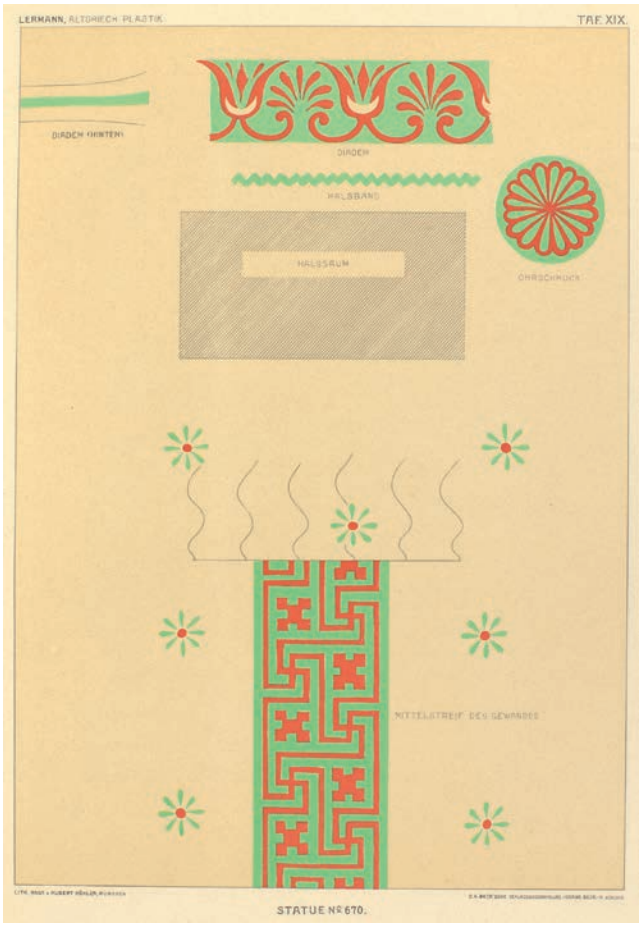

Fig. 5.2. Lermann colour plate of painted patterns on kore Acr. 670 (Lermann 1907).

media such as vase painting. The in-the-round technique, close to life size, and the fine quality stone used enable a high level of detail as can be seen in the depiction of flowers and biological features such as the cuticles of the nails and details of the eyelids.[5] The jewellery depicted on the statues finds parallels in archaeological finds.[6] The statues of Phrasikleia and the Berlin Kore, for example, wear inverted pyramid earrings and pendant necklaces of types known from Archaic graves at Sindos and elsewhere on mainland Greece (Fig. 5.1).[7]

Painted surfaces add colour to the relief and engraved stonework. Vulnerable to environmental factors, pigments degrade due to their composition and are barely visible today. The early 20th-century watercolours of Swiss painter, Émile Gilliéron, plates by Wilhelm Lermann (Fig. 5.2) and a colour cast by sculptor Ingrid Kjær (Fig. 5.3) made shortly after the discovery of a *korai* from the Athenian Acropolis in 1885–1890 are important sources for understanding the painted areas and motifs.[8] Recent scientific analyses and augmented virtual realities, such as those led by Vinzenz Brinkmann, Dimitrios Pandermalis and the CHESS[9] Project,

Fig. 5.3. 'Kore with almond-shaped eyes', Acr. 674. Height of preserved statue 0.92 m, 500 BCE. Colour cast of the Acropolis kore made shortly after its discovery. Polychrome Plaster Print of Ingrid Kjær, 1902, 110 × 37 × 25 cm. Musée des Moulages de l'université Lumière Lyon 2 (MuMo), inv. no. L133. © Photo: Claude Mouchot, 2010.

have produced startling rediscoveries of the statue's original colour (Fig. 5.4).[10]

Clothing on Archaic statues: A confused history

Statues are widely studied aspects of Archaic Greek material culture.[11] The art historical and literary traditions focus on the statues as art, their relationship to Greek myth and society, the evolution of naturalism, style and content, and the sculptor's ability to represent the human body.[12] The clothing is referred to as drapery, an obscure art historical term meaning neither clothing nor textiles. With some exceptions, the drapery of the *korai* is seen as a means to emphasise or reveal the body rather than as a subject for display and enquiry in itself.[13] In many cases the writers shy away from the subject of textiles or clothing, considering it too complex, and argue that it does not appear to be realistic. For Boardman 'the distinction in dress is thoroughly confused'[14] and for Stieber 'some of the clothing arrangements are so complex and, on occasion, so baffling as to defy attempts to explain and categorize them'.[15] Why do present-day researchers come to these conclusions?

Tracing and understanding the genealogy of research on clothing involves three major stages: Lermann's description of the sculptures and their polychromy shortly after their discovery;[16] Margarete Bieber's seminal work on ancient Greek clothing; and Gisela Richter's monograph on *korai* (statues of young women) and *kouroi* (statues of young men). Of these, Bieber and Richter are the most influential today.[17]

Lermann's description of the sculptures and polychromy is based on the observation of shape, relief and texture in combination with the pattern and colour of pigments. In his description of Kore Acr. 673, for example, Lermann identifies three garments with three distinct decorative bands, one on each garment (Fig. 5.5).[18] The first, an underdress,[19] is visible on the upper chest and left arm; it is painted green/blue[20] with a red and blue patterned ornamental band along the upper edge, along the arm and beneath the throat.

Fig. 5.4. 'Chios Kore', Acr. 675. Height 0.545 m, 520 BCE. Digital superimposition of original colours onto a 3D computer-generated image of the original ancient artwork. © Acropolis Museum. Digital representation by the research project for personalized digital guided tour 'CHESS' (Culture Heritage Experiences through Socio-personal interactions and Storytelling).

Fig. 5.5. Kore Acr. 673. Height 0.91 m, 520–510 BCE. © Acropolis Museum 2018. Photo: Yiannis Koulelis.

The second is a throw-over[21] which is draped from both shoulders; the longest folds hang on the right of the body and the lower edge has a predominantly blue meander band. A third garment wraps the lower body and has a wide, vertical central stripe[22] painted red, green/blue and blue.

The first study to focus on dress was Bieber's. Bieber examined the statues and literary sources and compared dress with the archaeological evidence for textiles and textile production found in vase painting and embroidered textiles from the Crimea.[23] Following literary sources, including Herodotus, Thukydides and Aristophanes, Bieber identifies three garments in the ancient Greek women's wardrobe: *peplos* (a rectangular, wrapped and pinned garment), *chiton* (a tunic–like garment) and mantle or *himation* (a mantle or wrap worn on the upper body).[24] Most of her analysis is based on Classical, not Archaic, statues. Her description of the Archaic *kore* (Acr. 682) (Fig. 5.6) from the Acropolis, dressed similarly to Acr. 673 described by Lermann and summarised above, identifies only two garments: the *chiton* and the oblique mantle.[25]

Fig. 5.6. Kore Acr. 682. Height 1.82 m, 525 BCE. © Acropolis Museum 2013. Photo: Socratis Mavrommatis.

Richter's research follows Bieber, with whom she consulted, and starts from literary sources.[26] She includes black and white inserts of Lermann's colour plates to illustrate pattern. Richter identifies five garments in the Archaic Greek *korai's* wardrobe: the *peplos*, the *chiton*, the Ionic *himation* (a short, pleated mantle), the *epiblema* (a shawl like wrap) and the *ependytes* (an informal short garment worn over the *chiton*).[27] For Richter, Kore Acr. 673 wears two garments: a dual-coloured *chiton* beneath a short Ionic *himation* or mantle which 'hangs down in a series of vertical, stacked folds with zigzag edges' over both shoulders.[28] Richter interprets the garments of Kore Acr. 682 in the same way.[29] Despite her admiration for ancient Greek weaving and embroidery skills, and her view that 'these decorated draperies supply evidence of the appearance of the actual garments worn by Greek women', Richter sees a problem with the 'drapery'.[30] She cannot reconcile these flowing forms with the Classical Greek clothing and terms presented by Bieber.[31] In frustration she writes, 'we are after all confronted with works of art, not with living human beings'.[32]

Today, the dress on statues such as Acr. 673 and 682 continues to be identified as two garments. One, the *chiton*, often with a textured red or green/blue bodice and a smooth, light–colour lower part with a central band (*paryphe*); the other, a *himation* fastened at one or both shoulders in cascading pleats with a narrow painted edge band.[33] This interpretation is visually confusing. It is unconvincing that sculptors and painters, trusted in their execution of body and inorganic artefacts, should fall short in their execution of textiles. As stated above, this interpretation stems from transferring to Archaic statues and art historical traditions a classical typology which prioritises the body over cloth. There is bias towards the written evidence in which words for garments were used more fluidly than today's translations would allow; and incorrect assertions about textiles,[34] such as the problems of dyeing linen, are accepted without question.[35] Taken together, this results in the textile clothing being regarded as fanciful. This is problematic because a quite different conclusion can be reached by applying an understanding of textiles combined with a trust in the sculptors and painters of Archaic Athens as first-hand observers of the world around them: the results, instead of being 'fanciful', provide rich evidence for the textiles present. They show the quality and quantity of the textiles that made up these honoured young women's outfits. Importantly, engaging with the textiles allows an exploration of any ideological points the sculptors were making and demonstrates that textiles provide a significant source with which to understand the Archaic world.

Method – an informed textile approach

Hero Granger-Taylor and Elisabeth Wayland Barber championed the informed textile approach to clothing on Roman

and Greek statuary in the 1980s and 1990s.[36] A formal analysis such as they adopted is applicable where there are recognisable details to match those found in preserved textiles, suggesting that sculptors copied actual textiles. This approach is suited to detailed, naturalistic, three-dimensional iconography.[37] In promoting an informed textile approach, it is necessary first to explain the relationship between textiles and clothing.

Technologies of dress can be separated into cloth, clothing and costume.[38] Cloth is the fabric used to make the clothing; costume is the combination of clothing worn together in an outfit. In Archaic Greece, textiles were the cloth of clothing. Textiles include several technologies. Yarns, made from fibre, are woven on a loom to create a web of fabric called a textile.[39] Yarns are characterised by their raw material, twist and diameter. Textiles are characterised by their yarn and fibre, weave structure, the sett of the warp and weft, finishing and weaving processes.[40] Fibres, yarns or textiles can be bleached or dyed. Textiles can be decorated on or off the loom, pleated, folded, cut and sewn. Clothing can be wrapped or tailored. It appears that the clothing in Archaic Greece was mostly made from rectangular textiles, in contrast to central Italic Iron Age and Roman cultures where textiles were woven to shape.[41] All processes affect the appearance of textiles and can find their way into the representational repertoire. The textiles of the Archaic *korai* have many such details. The informed textile approach developed for this paper is summarised as follows:

- Set aside the literary sources in the first instance.
- Observe textiles represented on statues through sculpture, relief, engraving and polychromy.
- Understand contemporary textile technology and the materials using preserved textile remains as comparisons.
- Use the knowledge of contemporary textiles to distinguish the number and type of textiles represented as textile products (here, clothing).
- Compare textile products with other iconographic and written evidence.

Instead of seeking to define 'clothing', this method first seeks to understand the textile technology of clothing based on a knowledge of preserved textiles. Here it is applied to two statues: the first a grave marker, the second a statue from the Athenian Acropolis.

Phrasikleia Kore, 550–540 BCE[42]

The first statue to be discussed here is of a young woman excavated in Merenda, eastern Attica, in 1972; it was buried in a pit with a statute of a naked young man (*kouros*, pl. *kouroi*).[43] Dated to the mid- to late sixth century BCE (*c.* 550–540 BCE), the statues are believed to have been grave markers of the Alcmaeonid family that were taken down and hidden before or shortly after the Persian destruction of Athens in 480 BCE.[44] The statue of the woman is a complete, three-dimensional marble statue with a well-preserved surface. It is carved in the round with engraved details and visible traces of pigment. The inscription indicates that she is a bride.[45] Stieber argues that the young woman's statue is highly individualised and the inscriptions suggests that it is a likeness of the deceased young woman, Phrasikleia.[46] The statue, complete with analysis of its polychromy, has been reconstructed.[47]

The statue

The young woman is dressed in a long red robe ornamented with yellow and orange patterned bands and motifs and fastened with a belt (Fig. 5.1, 5.7). On her head she wears a garland of flowers; her jewellery includes a necklace, earrings and a bracelet on each wrist; and she holds a closed lotus bud in her left hand. Her hair is tied back behind the ears with a narrow band. On her feet she wears sandals.

The fabric of the robe, indicated by the smooth surface and vertical folds, hangs from the shoulders and folds at the feet and is clasped at the waist with a belt. The front of the dress is asymmetrically decorated with rosette and swastika motifs. These motifs continue on the back with the addition of star and sun motifs. Two similar meander pattern bands run from one elbow to the other across the top of the arms, shoulders and front and back of the neck opening. These bands are engraved onto the stone surface and are flush with the fabric of the robe. The front and back bands meet along the arm and shoulders, creating a double line of bands. The bands are joined by a seam, depicted as a narrow ladder pattern from elbow to neck opening (Fig. 5.7a). The armholes are lined with identical meander patterned bands, which join the double band along the arms at close to a right angle. There is a central vertical band that extends from beneath the decorated band at the robe's neckline to between the ankles which is engraved and painted with meander pattern. The edges of the vertical band are several millimetres higher than the robe surface. There are no visible side seams. The smooth fabric surface on the chest and back is interspersed with low relief folds which slightly overhang a patterned belt worn at the waist. Folds of fabric between the chest and upper arm indicate surplus fabric (Fig. 5.7b). From the belt down, the fabric eases over the hips. As the volume decreases mid-thigh, the fabric folds become deeper and fall around the feet in an undulating line. The lower edge of the robe is embellished with a band with u-shaped inserts, described as tongues or scales. The presence of simple red undulations between the patterned band suggests the plain reverse fabric. The vertical band superimposes the tongue-patterned band at the lower edge.

The statue was examined using UV-VIS absorption spectroscopy and X-ray fluorescence to identify the pigments.[48] The analytical results were used to create a colour

Fig. 5.7. Funerary statue of Phrasikleia. A. Right side, B. Back. Height 2.11 m, 550–540 BCE. National Archaeological Museum of Athens, no. 4889. © Hellenic Ministry of Culture and Sports (Law 3028/2002).

reconstruction of the statue (Fig. 5.8). The robe was painted with orangey-red ochre and iron oxide to create a bright orange-red colour. The inside folds at the bottom edge of the robe and the edge of the sleeves were painted with red ochre and iron oxide to produce a darker red. The rosette petals and stars that decorate the robe were painted with yellowish goethite and iron oxide to create a light yellow hue, alternate petals were painted in a violet colour. The swastikas were painted with a mixture of yellow ochre and orpiment (a type of fake gold used for pigments)[49] to produce a luminous yellowish gold. The meanders on the central vertical band along the neckline and sleeves were painted with a very light yellow ochre on a background of dark red haematite and iron oxide, creating a light yellow meander on a deep red ground. The meander borders are painted the same violet colour as the rosette petals. The tongue patterns on the band along the lower band of the robe were painted alternately violet and a very light yellow ochre, on a background of dark red (haematite and iron oxide). Based on this examination of its original polychromy, the overall effect of the statue's clothing is that of a stunning red robe with bright patterned bands and motifs in shades of yellow and orange, with details picked out in a shiny dark violet and gold.[50]

The textiles and gold ornaments

Which textiles were represented in Phrasikleia's garment? The preserved textiles of the Geometric to Classical period in Greece (10th–5th centuries BCE) are woven in variations of plain weave[51] which were either balanced tabbies (a similar number and type of threads in both warp and weft) or weft-faced tabbies (a higher density of weakly twisted weft threads in relation to the warp).[52] Given that both balanced and weft-faced tabbies can be used to produce smooth fabrics, Phrasikleia's robe could have been made from either one.[53] In a cremation urn from the Ionian island of Corfu, 7th century BCE, fragments of textiles include a wool balanced tabby with 40–50 threads/cm, and a range of wool and linen weft-faced tabbies, with 60 to 120 wefts/cm made using wefts as fine as 0.15mm in diameter.[54] A fine, dense,

Figure 5.8. Funerary statue of Phrasikleia. Full-size polychrome reconstruction. Liebieghaus Skulpturensammlung/Leihgabe Ludwigmaximillians Universität München, no. LGLH Z01. © Vinzenz Brinkmann / Ulrike Koch-Brinkmann.

balanced tabby from Knossos, 8th century BCE, shows the quality of the yarn and the weaving (Fig. 5.9a).[55] Many of the weft-faced tabbies in ancient Greece were high-quality and labour-intensive textiles with more than 50 weft threads per cm of weaving (Fig. 5.9b).[56] Others are coarser textiles, as seen in a 6th-century BCE fragment from Vergina necropolis, central Macedonia, which had around 11 warps/cm and 20 wefts/cm; the wefts are 1 mm in diameter.[57] The soft folds of Phrasikleia's garment suggest that it is made of fine textiles.

The bold red textile and contrasting colour motifs indicate that the textiles were dyed. Most textiles in Greece are preserved through mineralisation and that is why few are suitable for dye analysis. Though rare, some preserved fragments of dyed textiles do exist. Two of the 7th-century BCE wool, weft-faced tabbies from Corfu, mentioned above, were dyed purple.[58] At least one of the two garments worn by the burial known as the 'Lady of Aigai', a lavishly furnished burial excavated from a cemetery near Vergina, Central Macedonia, dated *c*. 500 BCE, was a light, bright purple.[59] The purple of Textile 3, Lefkandi, dated 950 BCE, has been identified as shellfish purple.[60] Threads from the patterned Band 1 from Lefkandi were originally dyed red, probably using the red dye plant, madder (*Rubia tinctorum*).[61] Light coloured wool is readily dyed, though, conversely, it is difficult to maintain white wool as the fibres tend to yellow on exposure to sunlight or as they age.[62] The colour of Phrasikleia's robe is therefore entirely in keeping with dye technology of the time, whether depicting a purple or red textile of wool or linen.

Which textile techniques could have been used to create the swastika, star and rosette motifs? The weavers of 10th- and 5th-century BCE Greece used warp or weft stripes, supplementary wefts and warps,[63] weft-wrapping or soumak[64] and tapestry weave[65] to decorate textiles during weaving, with embroidery[66] applied to the finished textile.[67] The swastika and star motifs on Phrasikleia's robe could have been embroidered or woven into the red textile with yellow thread using any of these techniques. While the star motifs are more ambiguous, the square basis of the swastika motif lends itself to a woven design which could have been achieved using a coloured supplementary weft, soumak or tapestry weave incorporated into balanced or weft-faced tabby respectively. At Lefkandi (950 BCE) there are preserved remnants of tapestry weave and soumak or weft-wrapping.[68] From 4th century contexts, there is a spectacular tapestry weave woven in gold and purple from Tomb II, Vergina;[69] and from Bulgaria there are fragments of red and white tapestry from Zlatinitsa and gold thread tapestry from Golyama Kosmatka.[70] The presence of tapestry weave designs in earlier and later centuries, together with the representation of figurative, patterned textiles in vase paintings, suggests that these textile techniques were used on Phrasikleia's long robe.

In form and colour the light yellow and gold rosette decoration and triangular strips along the edges of Phrasikleia's

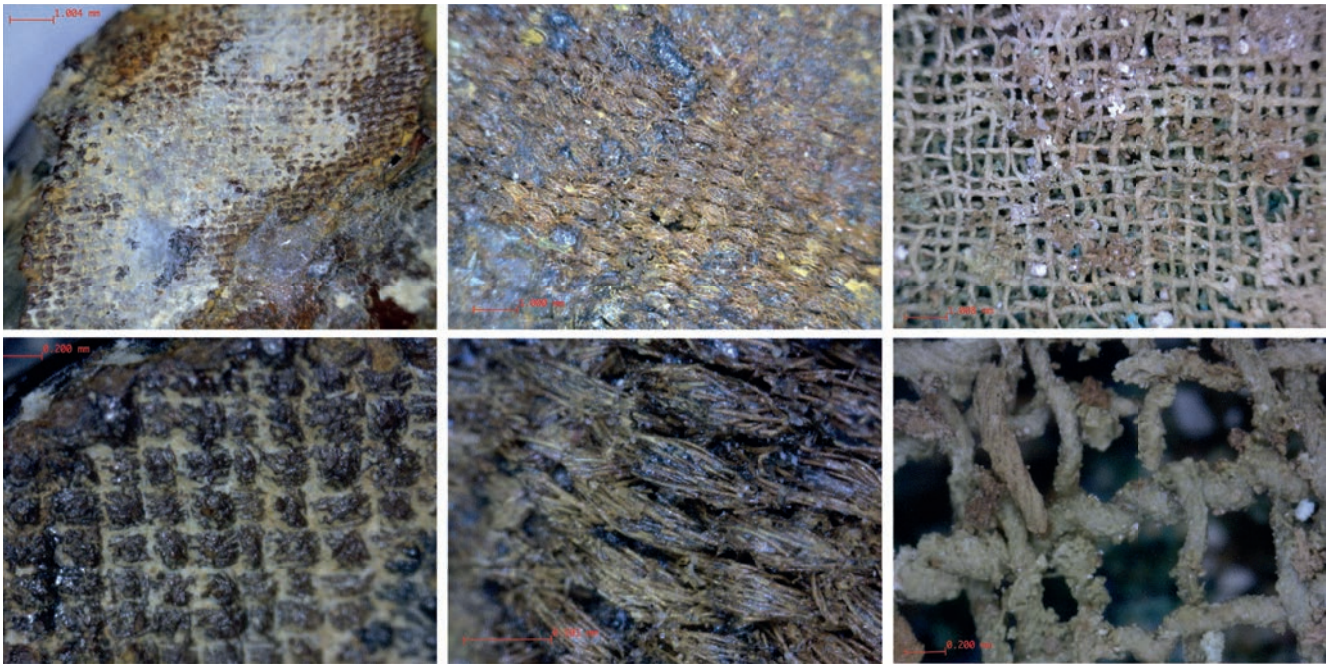

Fig. 5.9. A. Left, top and bottom. Balanced plain weave, Knossos, 8th century BCE; B. Centre top and bottom. Weft-faced tabby, wool from Karabournaki, Classical period, 6th century BCE; C. Right top and bottom. Open tabby with hard-spun linen yarns, Corinth, Archaic grave. Each textile shown in lower and higher magnifications, top and bottom rows. All images © M. Gleba. (Analytical results with permission from: A. British School of Athens, B. Trustees of the British Museum, C. Ephorate of Antiquities of Korinthia).

belt find archaeological and literary parallels in gold sheet appliqués, techniques practised throughout Greece from the Bronze Age to Hellenistic periods.[71] Gold sheet bands, triangles and discs were sewn onto the Lady of Aigai's garments, mentioned above for the purple textiles.[72] The Lady of Aigai's burial contained 23 gold discs measuring approximately 25 mm in diameter which were embossed with rosettes; two holes in the centre show how they were stitched to the fabric.[73] Similar gold rosettes, double triangles and embossed plaques adorned the garments and shoes of another woman, called the 'Lady of Archontiko', a decadently furnished burial of the West Cemetery of Archontiko, Pella, 540–530 BCE.[74] Both graves are among the most sumptuous burials found in either cemetery; the women are interpreted as members of a powerful Macedonian aristocracy, priestesses or queens.[75] It appears that the sculptor of Phrasikleia's statue portrays her in a similar vibrantly coloured textile embellished with gold.

What of the patterned bands that frame the shoulders and armholes and create the striking central vertical band on Phrasikleia's robe and tie her hair? Taken at face value, the raised central band, the connection of shoulder and arm bands at 90°, and the plain reverse fabric on the lower edge of the robe, together indicate that the patterned bands were fixed onto, rather than woven into, the fabric. There are two narrow bands from Lefkandi, early 1st millennium BCE. Band 1 is 10 mm wide and woven in yarns of flax and wool with geometric patterns, probably using supplementary warp floats technique.[76] There is a preserved narrow band from Bronze Age Kastelli in Chania, Crete, made from linen, nettle and goat's hair.[77] Ornate hair bands (*mitrai*) and belts (*zonai*) are common in early vase-paintings and are pointed out in Homer and Archaic poetry.[78] These would have been suitable techniques to use to weave the wider and more complex meander and tongue patterned bands on Phrasikleia's robe. The other major technique used to weave patterned bands in the Mediterranean in the 1st millennium BCE is tablet weaving.[79] Tablet woven bands were often integral to the textile, rather than applied. Margarita Gleba, however, argues that tablet weaving is a central European and Italic textile tradition which has yet to be identified in Greece.[80]

The garments

Phrasikleia's robe is long, it falls to the floor. It was made of one or two large, rectangular textiles that were stitched together at the shoulders, with an opening for the head (Tab. 5.1). A prominent vertical band with meander patterns falls from neck to ankle. Its elevation from the surface of the robe suggests it is applied to the red fabric. Two meander-patterned bands run across the front and back of the upper edge of the textile with four short lengths of the same meander-patterned band found on the front and back of the armholes. The armholes are positioned within the long edge of the garment. The extra folds of cloth between the elbow and waist, together with the right-angled decorative bands on the arms, suggest the sleeves are side openings in

Table 5.1. Number and type of textiles represented on Archaic Greek statutes of young women (korai).

Statue	*Phrasikleia*	*Kore wearing a chiton*	*Chios kore*	*Kore with almond-shaped eyes*	*Kore*	*Kore*
Museum and Inventory Number	NAMA Inv. no. 4889	Acropolis Museum Acr. 670	Acropolis Museum Acr. 675	Acropolis Museum Acr. 674	Acropolis Museum Acr. 673	Acropolis Museum Acr. 682
Date	550–540 BCE	520 BCE	520 BCE	500 BCE	520–510 BCE	525 BCE
Textile 1 Textile 2	One or two large, smooth, red textiles with yellow, orange violet and gold swastika, star and rosette motifs. To make the *chiton*.	One or two large, light-colour crinkly textiles with flower motifs. To make the *chiton*.	One or two large, blue crinkly textiles. To make the *chiton*.	One or two large, green/blue crinkly textiles. To make the *chiton*.	One or two large, green/blue crinkly textiles. To make the *chiton*.	One or two large, white crinkly textiles. To make the *chiton*.
Textile 3	Band with yellow and red meanders and violet outlines, along neck, shoulder and arms of *chiton*.	Large, smooth, light colour textile with narrow stripe and flower motifs. Worn as lower body wrap.	Band with red and white concentric cross and meander pattern. Along neck, shoulder and arms of *chiton*.	Band with blue stripes. Along shoulder and arms of *chiton*.	Band with red and blue crosses and meander pattern along shoulder and arms of *chiton*.	Band with red and blue ornamental concentric, meander check pattern along neck, shoulder and arms of *chiton*.
Textile 4	Wide band with yellow and red complex meanders and violet outlines. Central band of *chiton*.	Wide band with complex meander and cross pattern in green and red. Central band on lower body wrap.	Large, smooth, light-colour textile with blue and red small motifs. Worn as lower body wrap.	Large, smooth, light yellow textile with scattered red and green/blue rosettes. Worn as lower body wrap.	Large, smooth, light-colour, textile. Worn as lower body wrap.	Large, smooth textile with small star motifs. Worn as lower body wrap.
Textile 5	Band with yellow, violet and red tongue-shaped patterns and violet outlines. Lower border of *chiton*.	(Belt not visible).	Wide band with meander and cross pattern in red, white/yellow and blue. Central band on lower body wrap.	Band with double meander. Central band on lower body wrap.	Wide band with facing meander, possibly red, yellow, blue. Central band on lower body wrap.	Wide band with complex meander in green and blue on red ground. Central band on lower body wrap.
Textile 6	Narrow meander headband.	–	Band in blue and red, possible belt.	Large, smooth, light-colour textile with green/blue scattered rosette motifs. Mantle/*himation*.	Large, smooth, light-colour, textile. Mantle/*himation*.	Red stripe, blue and green patterned belt.
Textile 7	Possible textile band with triangular gold appliqués. Belt.	–	Large, smooth, light colour textile with blue and red small motifs. Mantle/*himation*.	Band with green/blue and red meander and cross pattern. Lower border of mantle/*himation*.	Band with blue and red meander, cross and row of dot pattern. Lower border of mantle/*himation*.	Large, smooth, light-colour textile with red, green and blue swirling flourishes palmettes and dotted rosettes. Mantle/*himation*.

(Continued)

Table 5.1. (Continued)

Statue	*Phrasikleia*	*Kore wearing a chiton*	*Chios kore*	*Kore with almond-shaped eyes*	*Kore*	*Kore*
Textile 8		–	Band with meander, concentric cross and cross variation patterns in red, white and blue. Lower border of mantle/*himation*.	–	–	Band with square, cross and dot patterns in red, blue, white and green. Lower border of mantle/*himation*.
Textile 9	–	–	Band with meander and cross patterns in blue, white and red. Shoulder of mantle/*himation*.	–	–	Band with red, ornamented blue/green and white patterned stripes. Shoulder of mantle/*himation*.
Source	Karakasi (2003, pls 235–237); Brinkmann *et al.*, (2010, 76, 81, figs 59, 67).	Catalogue (2012, 34–35); Karakasi (2003, pl. 258); Richter (1968, figs 377–380); Lermann (1907, 88, Taf. XIX).	Catalogue (2012, 32–33); Richter (1968, figs 394–397); Karakasi (2003, pl. 266); Lermann (1907, 87, Taf. X).	Catalogue (2012, 48–49); Richter (1968, figs 411–414); Karakasi (2003, pls 268–269); Lermann (1907, 86, Taf. IV).	Catalogue (2012, 36–37); Richter (1968, figs 369–372); Karakasi (2003, pls 260–261); Lermann (1907, 87, Taf. XI).	Catalogue (2012, 44–45); Richter (1968, figs 362–365); Karakasi (2003, pls 252–253); Lermann (1907, 87–88, Taf. XIV–XV).

a bag-shaped garment. The absence of side seams is curious. It could suggest Phrasikleia's garment was woven in one piece to create a tubular fabric. Alternatively, it could have been made from two large textiles stitched together along the side and shoulder seams to create a tubular shape with openings left for the head and armholes. If this is the case, the sculptor chose not to represent the side seams. This bag-shape, or tunic-shape, is one of the simplest forms of garment; this interpretation has not been challenged in the academic literature.

There are numerous similar garments portrayed in statuary and vase painting. A comparable red floor-length robe is worn by the Berlin Kore, believed to originate from Keratea, Attica, 570–560 BCE.[81] The Berlin Kore garment has meander bands at the neck and centre front and the dress construction appears the same with excess fabric between the elbow-length sleeves and chest.

The single garment worn by Phrasikleia is often interpreted as a *chiton*,[82] fastened with a belt (*zone*).[83] This fits in with the definition of a *chiton* as the Greek term for tunic.[84] Others refer to Phrasikleia's *peplos*, which highlights the inconsistency in translating garment names.[85] There are numerous variations of the *chiton* in representation and literature. These include *chitones* from two large rectangles of textile sewn up the sides and those woven without seams.[86] *Chitones* vary in length, were worn with or without a belt and could differ in the way they were fastened at the shoulder.[87] *Chitones* were woven from linen or wool.[88] The armholes in Phrasikleia's garment are set within the side, at right angles to the shoulder seam, which is contrary to published patterns of *chitones* where the armholes are in the upper edge.[89] In the academic literature on garments of the mid-7th to 6th century BCE, a *chiton* with loose folds, such as the one sculpted on the statue of Phrasikleia, is referred to as the Ionic *chiton* in contrast to the narrow, straight, columnar Dedalic *chiton* or *peplos* that preceded it.[90]

In short, Phrasikleia's outfit is made of at least six textiles. There are one or two large, red rectangular textiles stitched to create a long robe. These were either balanced tabby or weft-faced tabby with embroidered or tapestry motifs and gold appliqué. Applied to the robe are three bands: a wide central band with complex meanders, a long band with simpler meanders around the neck and arms, a band with tongue-shaped patterns round the hem and a narrow meander pattern band to tie the hair. It is not clear whether the belt with triangular gold appliqué is textile based. The red textiles are noticeably long and highly embellished.

Kore wearing a *chiton* (Acropolis 670), 520 BCE[91]

The second statue discussed in this paper was found in 1886 to the north-west of the Erechtheion of the Athenian Acropolis (Fig. 5.10).[92] This three-dimensional marble statue of a young woman is now only 1.15 m high. The main

Fig. 5.10. 'Kore wearing a chiton*', Acr. 670. Height 1.14 m, 520 BCE. © Acropolis Museum 2018. Photo: Yiannis Koulelis.*

body is preserved but the hands, feet and lower area of the garments are missing.[93] The polychromy of the statue was described by Lermann shortly after its discovery.[94] There are no published scientific analyses of the pigments.

The 'Kore wearing a *chiton*', referred to here as Acr. 670,[95] wears disc earrings and a decorative arced headdress (*stephane*) over long hair. Her clothing is represented by two distinct textures, a crinkly texture covering the upper body and a smooth texture with folds in the lower body. In her left hand she lifts up a deep concertina of folds from the lower garment.

The statue

The upper body is carved with a fabric composed of closely spaced, wavy ridges that fall vertically from the shoulders and neckline and end at the hip where they curve under a horizontal fold of the fabric. The wavy ridges create a crinkly effect fabric. At the neck opening, the fabric is bordered within a smooth band several centimetres wide; Lermann noted green pigment on the collar.[96] The crinkly fabric is joined along the shoulders and top of the arms by seven or eight small buttons. Three wavy crinkles radiate out from each button on the front and back of the garment. The fabric eases around the shoulders and joins into the vertical fall of the fabric, as can be seen from the back. The sleeves end in deep folds below the elbow. The direction of the wavy ridges and the excess fabric around the elbow indicate that the sleeves belong to the same rectangles of fabric as the main body of the garment. The fabric is ample around the chest, arms and waist and at the back follows the curve of the spine. The sculptor portrays a fine, crinkly textile; the left nipple pokes through the fabric. Painted flowers or stars, once green and now brown, are visible on the chest and hips.

In contrast, the fabric on the lower body is smooth with wide, low relief ridges. Low relief ridges radiate from the pubic area to the ankles and around the thighs, creating the impression of a fine fabric held tightly to the body. A prominent vertical central band sits on a deep concertina of fabric, emphasising a large quantity of cloth built up in the folds. The lower garment clings to the body, which contrasts to the baggy upper garment. Lermann observed a meander and cross pattern on the central strip of the skirt, painted red on green/blue. All that remains of the pigment now is a dark pigment highlighting the edge of the strip.[97] What Lermann described as a green/blue strip at calf height is today a dark line encircling the body. It starts either side of the central strip, runs through the concertina folds and slants down across the shins to the back of the calves. Lermann describes the statue as lacking large areas of colour; small green stars with a red central dot are scattered across the entire fabric.[98]

The crinkly textured fabric on the upper body combined with the smooth fabric on the lower body find comparisons in other statues from the Acropolis (Acr. 683, Acr. 671). Kore Acr. 683 has a similar combination of crinkly textured fabric on the upper body and smooth fabric with a concertina of folds on the lower body.[99] The so-called Peplos Kore (Acr. 679) wears a long robe of crinkly fabric beneath her smooth outer garments. The crinkly textured garment on the Peplos Kore peeks out at the left elbow and around the ankles at the lower edge of the clothing, indicating it to have been a long garment extending from shoulder to ankle.[100]

The textiles

What type of textiles was the sculptor trying to represent? There are several possibilities for the crinkly textured fabric of the upper body. The closest textured textiles found amongst the preserved ones are the open, plain weave (tabby) textiles woven with fine, overspun yarns. Preserved fragments of this type of textile are known from the Orientalising to Hellenistic period in Greece and from the Greek city of Cumae in Italy, a city established by settlers from the Aegean.[101] The balanced open tabbies at Cumae are woven in warp and weft with hard to very hard spun z-twist linen yarns that are 0.09–0.2 mm in diameter, with only 23–32 threads/cm of weaving.[102] Similar fabrics wrapped a cremation burial in Eretria, Greece, *c*. 700 BCE.[103] The notable characteristic of this fabric is that one thread system is very hard spun, creating overspun yarns that cause the fabric to kink.[104] When cut from the loom, the overspin acts like a spring, causing the yarn to contract, which can create a crinkled effect known as crêpe.[105] The narrow folds created by the contraction of the hard-spun yarns creates a type of pleat.[106] The mechanical properties of flax fibre would enhance this effect because cellulosic fibres, such as flax, crease and wrinkle, in contrast to protein fibres, such as wool, which are resistant to wrinkling.[107] The smooth fabric of the lower body, with its concertina of folds that flares out towards the feet, suggest a fine textile. The texture is similar to the fabric of Phrasikleia's garment and represents a weft-faced or balanced tabby.

It is debatable whether these distinct textures are part of the same textile. It is possible to weave sudden changes in colours and textures in one textile.[108] A preserved textile, interpreted as a robe-like garment from Lefkandi, is woven with two distinct weaves: a balanced plain weave and a plain weave with a pile of Turkish knots[109] integrated into the weft.[110] However, due to technical factors, weft-faced tabbies and overspun tabbies required a different loom set up, suggesting that they were woven as separate textiles. The warp yarns of preserved weft-faced tabbies known from Greece are typically over 0.2 mm in diameter, less than 20 threads/cm, and usually wool.[111] Whereas the warp yarns of the overspun tabbies are less than 0.2 mm in diameter, with 23–32 threads/cm, and made of linen. Further consideration of this issue in relation to the garments is discussed below.

The flower patterns on the upper and lower fabric could be the result of a number of decorative techniques, as explained for Phrasikleia's garment. The flower petals are akin to embroidery or non-continuous supplementary weft techniques. Embroidery was practised from the Bronze Age to the Classical Period in Greece. There are traces of embroidery found on a plain weave fragment from Xeste, Late Minoan Crete, *c*. 1400 BCE. Embroidery is also found on a 5th-century textile from Nikaia, Attica, and in motifs embroidered on textiles from Classical period Koropi, East Attica.[112] The meander patterned central band is woven with a geometric pattern that is readily achieved in weaving, potentially with a supplementary warp technique as has been discussed above. The dark stripe in the textile at ankle height would have been easy to add by using coloured warp or weft yarns.

The garments

Are the distinct textured fabrics separate garments? Like Phrasikleia's garment, the fabric of the upper body garment appears to consist of two rectangles fastened together by multiple small buttons along the top of the arms and across the shoulders to form a tunic-like garment (Tab. 5.1). The front neck opening has a smooth strip several centimetres wide; unlike Phrasikleia's, there are no fancy edges to the shoulder seams or armholes. The hypothesised belt of Kore Acr. 670 is invisible beneath the overhanging fabric (*kolpos*). On statues wearing similar clothing from near Laurion, Attica and the temple of Hera, Samos, *c*. 525 BCE, the sculptors show a belt intersecting the crinkled and smooth fabrics.[113] The textile of the lower garment, with its smooth texture, is significantly bunched in the centre, and the concertina of folds hangs beneath the central vertical band with a meander pattern.

On other statues, the crinkly upper body garment is a different colour to the smooth, lower body wrap. On Kore Acr. 675, the 'Chios Kore' (Fig. 5.4), Kore Acr. 673 (Fig. 5.5), Kore Acr. 674, the 'Kore with almond-shaped eyes' (Fig. 5.3) dated between 520–500 BCE, the crinkly texture on the upper body is painted dark green/blue in contrast to the smooth, light colour fabric on the lower body and asymmetrical wrap on the upper body.[114] The crinkly textiles on the so-called Peplos Kore (Acr. 679) may originally have been blue; on the 'Red shoes *kore*', Acr. 683 and Acr. 685, the crinkly textured upper garment is painted red.[115] This indicates that the crinkly fabric, possibly linen, was sometimes dyed green/blue or red. The academic literature repeatedly notes that linen is a notoriously difficult fibre to dye.[116] This assertion needs clarifying.[117] Cellulose fibres, such as linen, *can* be dyed fast especially if they are vat dyed or treated first with a mordant; these were practices known in Iron Age Europe and described by Pliny in the 1st century CE.[118] The light colour of the smooth fabrics can be achieved by using non-pigmented wool or plant fibres in their natural or bleached state.[119]

While the texture and colour could belong to the same textile, the structure of the garments suggests otherwise. The central vertical band ends at the top of the smooth fabric, suggesting it is attached to a separate textile. Most persuasive is the bunching of the fabric. The textile of the upper garment hangs evenly across the arms and shoulders, front and back, with excess fabric bunching at the side in the underarm and elbows. The lower garment, by contrast, is tightly wrapped around the back and sides of the lower body and is bunched into folds at the centre front. This means the excess fabric of the upper and lower body textiles is collected in different areas of the body. This pattern features suggests that they are two distinct garments.

There has been some debate about the separate lower body garment. Lermann describes it as a robe or dress.[120] For Richter and nearly all subsequent writers, the young woman is wearing a single garment, the *chiton*, pulled over a belt to form a pouch (*kolpos*).[121] On the basis of the contrasting colour and textures, Evelyn Harrison maintained that such garments are pieced together from several textiles.[122] Based on representations on ceramics, Isabella Benda-Weber argues for garments composed of multiple textures and patterns from the Bronze to Iron Ages across Greece; different textiles may have been stitched together.[123] Alternatively, Judith Schaeffer and Brunilde Ridgway suggest a separate skirt or lower body wrap.[124] Evelyn Harrison opposed the idea of skirts in antiquity because she found no open edge indicative of a wrap on the Archaic *kore*.[125] It is possible that efforts were made to conceal side seams within the concertina fold or beneath the central strip. Benda-Weber cites a terracotta figurine of a women revealing her pubic area by opening her wrap to the left of the central strip.[126] The upper garment of the Peplos Kore (Acr. 679) opens over her left arm. In the academic literature *himation* usually describes the diagonal mantle worn over a *chiton*, although it is also a general term for clothing.[127] Could the wrap be a *himation* worn lower down on the body? These are the kind of details that will always make interpretations of the *korai*'s clothing doubtful.

In summary, the 'Kore wearing a *chiton*' wears three or four textiles (Tab. 5.1). These are one or two large, light colour crinkly textiles with delicate, probably embroidered, flower motifs, fastened by small buttons along one edge to make a tunic-like upper garment. There is one large, light-coloured textile with narrow stripe and small embroidered flower motifs worn as a wide lower body wrap. Applied to the wrap is a wide band with complex green and red meander and cross patterns. The crinkly textile is large, falling in deep folds at the elbow and overhanging the belt. The lower body warp is very wide, with fabric piled in multiple pleats.

The textile evidence provides clarity, not confusion

The results gained by applying the informed textile approach to these two *korai* provide the framework within which to analyse the complex clothing combinations. The crinkly *chiton* and smooth wrap of Acr. 670 is found on other *korai* in combination with a diagonal pleated mantle over one or both shoulders. This increases the total number of textiles worn by an individual kore to as many as nine. For example, the 'Chios Kore'[128] (Fig. 5.4, Tab. 5.1) wears one or two crinkly blue textiles, with a red and white meander – and a flower-patterned upper border for the tunic-like *chiton*. On the lower body, she wears a smooth, light-coloured wrap with scattered motifs and a wide meander-patterned central band. At the top of the central band is a glimpse of a red and blue horizontal band, possibly a belt. Over the right proper shoulder is an ample, pleated, light-coloured mantle with the same small motifs as the lower body wrap; its lower border has a red, white and blue meander pattern and a diamond pattern and the shoulder fastenings are lined with a blue, white and red meander and cross-patterned band. The 'Kore with almond-shaped eyes' (Fig. 5.3) and Kore Acr. 682 (Fig. 5.6)[129] wear a similar combination of garments (Tab. 5.1). Kore Acr. 673 (Fig. 5.5) has a variation with the mantle fastened over the right proper shoulder and also drawn over the left shoulder (Tab. 5.1).

Conclusion – abundance and splendour

With the results gained from the informed textile approach, this paper demonstrates the astonishing quality and quantity of textiles represented on statues of young women (*korai*) in Archaic Greece. Through comparing the representation of textiles on the statues with preserved textiles this research focuses on the textiles depicted by the sculptors and painters. Preserved textiles in Archaic Greece are mostly balanced plain weave tabbies, weft-faced tabbies and tapestry. Variations of these textiles were made with fine, textured yarns, dyed and decorated with supplementary wefts, soumak, weft wrapping, embroidery and gold appliqué. This analysis shows how the surviving textiles correspond to the textures and patterns of the clothing represented on the statues. Given that these textiles can be identified, their representation merits being treated with a level of recognition similar to that applied to the other features portrayed.

Archaic statues give a sense of the abundance of textiles in these young women's dress assemblages. This fits in well with the literary evidence.[130] Based on the textile analysis, Phrasikleia's outfit required at least six textiles (Tab. 5.1). The 'Kore wearing a *chiton*' incorporates four or five textiles, the outfit of the 'Chios Kore' includes eight or nine textiles (Tab. 5.1). These are unique results gained by using the informed textile approach to investigate the quality and quantity of textiles, rather than focusing on clothing. The number of textiles attests to the sheer quantity of fabrics in the *korai*'s outfits. Many of these textiles are large; robes and wraps fall to the ankles, textiles have concertinas of folds and pleats, surplus fabric falls around the elbows and hangs over the belt. Textiles are piled on in layers, whether through applied decorative bands or the addition of wraps and pleated mantles. These oversized and layered textiles further emphasise the quantity of textiles used in the *korai*'s dress assemblages. The textiles are splendid; they are a sensory delight.[131] They were dyed intense colours, patterned, embroidered, tapestry woven and appliquéd with gold. The sculptors represented textiles that required skilled crafting, colourful dyes, fine yarns and a range of weaving technologies. In number, type and size of textiles represented on the *korai* were expensive in terms of resources, this made them exclusive as they were accessible only to the wealthiest families. Where similar preserved textiles have been found in the burials of Aigia and Archontiko, they have been considered to be the textiles of princesses. All the evidence suggests the young women (*korai*) were represented in textiles of value.[132]

Statues of young women (*korai*) are primarily concerned with textiles unlike the statues of young men (*kouroi*) where the nude body prevails. Why was this? The answer, it seems, was that the athletic, nude male statue was making an ideological statement.[133] What, then, was the corresponding ideological significance of the textiles which adorned the female statues? The prevailing culture demanded that the woman's body was covered and controlled.[134] But the representation of these textiles also had a significance beyond this in that they marked the very essence of a Greek woman's identity. Textiles were gifts, the products of women's labour and part of the offerings made at sanctuaries.[135] In the early 5th century BCE, textiles were intertwined with the aesthetics and ethics of Athenian notions of reciprocal gift-giving.[136] Aristocratic women such as Penelope and Helen are famed for their weaving skills.[137] Karakasi, for example, draws particular attention to the statues' attributes – the fruits, animals and jewellery the women hold, offer or wear, all believed to be offerings or symbols of a divinity.[138] These young women also hold and present their textile garments. Were then these textiles also offerings every bit as much as the other items? The Classical (mid-5th-century) Parthenon frieze in Athens shows the priest accepting the *peplos* destined to dress the statue of Athena Polias.[139] Given that the Acropolis *korai* statues discovered in 1886 may have been offerings to Athena, goddess of weaving, it follows that the Acropolis *korai* would have worn the most elaborate and valuable textiles available at the time.[140] If Phrasikleia is a bride, then she too shows her wealth, skill and connections through the display of fine textiles.

In short, by focusing on the quality and quantity of textiles, rather than merely on the style of clothing, it becomes apparent that textiles are potentially the most significant

attribute of these statues of young women. In order to understand the visual message the Archaic sculptors and painters were trying to portray about their subjects, it is therefore essential to make full use of the evidence from the iconography.

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Notes

1 *E.g.* Spantidaki and Moulhérat (2012); Spantidaki (2016); Gleba (2017); Margariti and Spantidaki (2020).
2 The Acropolis *kore* were rediscovered during a digging campaign between 1885–1890. Richter (1968, 6).
3 Highly individualistic as in Stieber (2004, 81–82), generalised see Keesling (2003, 6).
4 Keesling (2003, 98).
5 Stieber (2004, 148–149); Maßmann (2010, 72–73, figs 50–51).
6 Karakasi (2003, 121).
7 Castor (2008, 7); Ignatiadou (2012, 393, fig. 7).
8 Lermann (1907), for bibliography of early research, see Vlassopoulou (2012, 8) and review by Gardner (1907, 237); for Ingrid Kjær, see Bundgaard Rasmusse (2019, 185, n. 26).
9 CHESS - Cultural Heritage Experiences through Socio-personal interactions and Storytelling, funded by the European Union Seventh Framework Programme.
10 Brinkmann and Scholl (2010); Brinkmann *et al.* (2010c); Pandermalis (2012). See new work by Professor Pandermalis (Blatsiou, 2017).
11 *E.g.* Ridgway (1993); Osborne (1998); Boardman (1999); Wagner-Hasel (2002); Stieber (2004); Donohue (2005); Pandermalis (2012).
12 A legacy in the analysis of classical sculpture starting from Wincklelmann and Henri Lechat, *c*. 1903, 'draped nudes and a unitary conception of stylistic development' and 'The assumption of a single artistic direction of improving naturalism in the representation of an undifferentiated category of "drapery" in relation to the nude'. For full critique, see Donohue (2005, 184).
13 For exceptions, see Schaeffer (1975); Ridgway (1993); Lee (2015); Brøṇs (2017).
14 Boardman (1999, 67).
15 Stieber (2004, 68).
16 Lermann (1907, 87).
17 Bieber (1928); Richter (1968; 1970).
18 Lermann (1907, 87, Taf. X).
19 *Unterkleid* in German (Lermann 1907, 87).
20 Decay of pigments over time affects the colour. Nowadays the blue pigment appears green.
21 *Uberwerf* in German (Lermann 1907, 87).
22 *Mittle streif der Gewand* in German (Lermann 1907, 87).
23 Bieber (1928, 6–8).
24 Bieber (1928, 17).
25 Bieber (1928, Taf. XXIII.1).
26 Richter (1968, 7, n. 12).
27 Richter (1968, 7).
28 Richter (1968, 75)
29 Richter (1968, 73).
30 Richter (1968, viii, 15).
31 Bieber (1928); Richter (1968, x–xi, 6–10).
32 Richter (1968, 8).
33 *E.g.* Catalogue (2012, 36–37 Acr. 673, 46–47 Acr. 682).
34 *E.g. peplos*, Cleland *et al.* (2007, 143).
35 '… linen is a notoriously difficult fibre to dye'. Lee (2015, 110).
36 Granger-Taylor (1982); Barber (1991).
37 For recent examples, see Demant (2011); Hildebrandt and Demant (2018).
38 Stig Sørensen (1997, 97, fig. 2).
39 Outline of textile technology, see Gleba and Mannering (2012); for textile definition, see Good (2001).
40 Hammarlund (2013, 179, fig. 67).
41 Granger-Taylor (1982).
42 National Archaeological Museum, Athens, inv. no. 4889.
43 Mastrokostas (1972); Stieber (2004, 141).
44 Stieber (2004, 141).
45 Wagner-Hasel (2002, 17).
46 Stieber (2004, 143).
47 Brinkmann *et al.* (2010a; 2010b).
48 All scientific results from Brinkmann *et al.* (2010b, 195–197).
49 Derived from the Latin *auripigmentum*, literally 'gold pigment', used as a substitute for gold in ancient polychromy (Brøns, this volume).
50 Brinkmann *et al.* (2010a, 76, fig. 59).
51 Plain weave, also called tabby, describes a weave structure where threads pass one over, one under, alternating in each pass of the weft; there are many variations of this simple weave.
52 Gleba (2017); Spantidaki and Moulhérat (2012, 194).
53 The main textile fibres in Archaic Greece were linen and wool. Balanced tabbies in Greece are typically woven from linen, while weft-faced tabbies are of wool (Gleba 2017, 1214–1215). Silk is a later development and, to date, not recorded in Archaic Greece; see Bender Jørgensen (2013).
54 Spantidaki and Moulhérat (2012, 194–195).
55 Textile analysed by M. Gleba, unpublished.
56 Weft-faced tabbies, and the closely related tapestry weave, are a textile tradition that has origins in Bronze Age Near East and Egypt Gleba (2017, 1216, tab. 2).
57 Spantidaki and Moulhérat (2012, 194–195).

58 Spantidaki and Moulhérat (2012, 191–194, tab. 74); Margariti and Spantidaki (2020, 405). Although several centuries earlier, the Lefkandi evidence is rare proof of textile techniques such as dyeing, decorative narrow bands and tufted textiles in the early 1st millennium BCE; Margariti and Spantidaki (2020).
59 Kottaridi (2012, 416).
60 Margariti and Spantidaki (2020, 410).
61 Margariti and Spantidaki (2020, 403, 406). Now beige yarns contained traces of alizarin dye molecule from the *Rubiaceae* plant family, which includes the red dye plant, madder (*Rubia tinctorum*); Margariti and Spantidaki (2020, 403, 406).
62 Collier *et al.* (2009, 96–97).
63 Supplementary weft or warp (also pattern weft or brocade weft) is an additional weft or warp which is worked into the ground weave (*i.e.* the main warp or weft), usually to create a decorative effect (CIETA 1964, 5, 24).
64 Weft-wrapping and soumak refer to a type of weave where the weft does not pass through the shed in the warp, but rather the weft is manually wrapped around one or more warps. These techniques are typically used to create a pattern in different colours (CIETA 1964, 46).
65 Tapestry weave is a version of weft-faced tabby (plain weave) textile where distinctive coloured wefts are interwoven only in patches of the warp required by the pattern. The wefts completely cover the warps, making this an ideal technique to create decorative surfaces and defined motifs (CIETA 1964, 49).
66 Embroidery is the application of surface stitching to create a decorative effect.
67 Spantidaki and Moulhérat (2012, 194–195); Spantidaki (2016, 80–81). Embroidered textiles and textiles with additional wefts were discovered at Koropi, a 5th-century BCE funerary site in east Attica, southern Greece; Spantidaki (2016). Embroidery and weft-wrapping or soumak were used on the texiles from Lefkandi; Margariti and Spantidaki (2020, 401–408). Stripes can be created by using a warp or weft thread of contrasting colour. Additional wefts can be inserted across the width of the fabric (continuous additional weft) or inserted only at the exact places where it is required (discontinuous additional weft); Spantidaki (2016).
68 Margariti and Spantidaki (2020, 408).
69 Spantidaki (2016, 80–81); Drougou (2018). Tapestry weave textiles are known from Late Assyrian Ur in southern Iraq, mid- to late Bronze Age Qatna, Egypt, Gleba (2017).
70 Dimova (2016, 672–674).
71 Spantidaki (2016, 82–83).
72 Kottaridi (2012, 416; Tomb 1988/ΛIL).
73 Kottaridi (2012, 431, cat. 20, fig. 4).
74 Similar rosettes were found in other women's tombs at Archontiki; Chrysostomou and Chrysostomou (2012, Grave T2001/60; 370, fig. 8, Tomb 458).
75 Chrysostomou and Chrysostomou (2012, 373); Kottaridi (2012, 413).
76 The weave analysis cannot be confirmed as the band was stitched onto a fabric backing during conservation, meaning the reverse cannot be examined. Barber (1991, 197); Margariti and Spantidaki (2020, 46).
77 Moulherat and Spantidaki (2009).
78 Van Wees (2005, 49).
79 Tablet weave: a twined warp weave made using tablets. The warp yarns are threaded through holes in the tablets, the tablets are twisted between each passing of the weft (CIETA 1964, 48).
80 Gleba (2017, 1215, 1218).
81 Maßmann (2010, 68–69). *Chitons*: alternative plural, *chitones*.
82 The etymology of the *chiton* or *khiton* traces its origins to the Akkadian *kitinnu* or Hebrew *kutonneth*, which becomes the Latin *ktunica, later simplified to tunica, and English tunic, Barber (1995, 12).
83 Lee (2015, 106, fig. 107).
84 Cleland *et al*. (2007, 32).
85 *Peplos* in Osborne (1998, 84); Stieber (2004, 168).
86 Cleland *et al*. (2007, 32–34).
87 Cleland *et al*. (2007, 32–34).
88 Cleland *et al*. (2007, 32–34).
89 Boardman (1999, 68); Lee (2015, 107, fig. F.4.11).
90 Boardman (1999, 67); Bonfante (2003, 32–33).
91 Acropolis Museum, inv. no. Acr. 670.
92 Richter (1968, 76–77).
93 Richter (1968, figs 377–379).
94 Lermann (1907, 88, Taf. XIX).
95 Referred to by the inventory number as the name 'Kore wearing a *chiton*' may be is misleading.
96 Lermann (1907).
97 Lermann (1907, 88, Taf. XIX, Bild 39).
98 Lermann (1907, 88, Taf. XIX, Bild 39).
99 Richter (1968, figs. 381–384) and Catalogue (2012, 42).
100 Richter (1968, 72–73, fig. 355–357) and Catalogue (2012, 28–29).
101 Spantidaki (2016, 83); Gleba *et al.* (2017, 51–57).
102 Gleba *et al*. (2017, 53, tab. 1).
103 Gleba *et al*. (2017, 56, tab. 2).
104 Gleba *et al*. (2017, 55).
105 Emery (1994, 11–12). For evidence of crimpy classical textiles, see Spantidaki (2016, 83–84).
106 Grömer and Rast-Eicher (2019, 92).
107 Collier *et al.* (2009, 79, 90).
108 Benda-Weber (2018b, 129).
109 Turkish knot is a knotted pile technique made by knotting short lengths of pile (yarn) around the warp in such a way that the pile ends stick out on one side creating a tufted surface (CIETA 1964, 27).
110 The protruding knot ends create the pile surfaces; Margariti and Spantidaki (2020, 404–405).
111 *E.g.* Spantidaki and Moulhérat (2012, 191).
112 Moulhérat and Spantidaki (2007, 50); Spantidaki (2016, 81).
113 Richter (1968, figs 441–444, 494).
114 Catalogue (2012, n.13, 36–37, 48–49).
115 Catalogue (2012, 28).
116 *E.g.* Barber (1995, 12); Lee (2015, 110).
117 Historically and in the present day, linen and other cellulosic bast fibres are dyed with a range of natural plant or animal dyes including woad (blue), madder (red), tree bark and walnut (yellow browns) and wild saffron (yellow); Baines (1989, 77, 81); Dunsmore (2006, 77).
118 Bogensperger *et al.* (2017, 259). For the science of ancient Mediterranean dyeing, see Melo (2009). A range of plant and animal sources were used as dyestuff. For example, woad leaf (*Isatis tinctoria*) is a vat dye that can be used

without a mordant and is known across Europe in the early 1st millennium BCE; woad typically dyes blue to blue-black; Baines (1989, 77, 81); Hopewell and Harris (2019). Madder root (*Rubia tinctorum*) is used with a mordant such as alum and dyes a peachy pink to deep red, even black; Baines (1989, 80–84).

119 Wool is a protein fibre with natural colours ranging from light beige and white to brown and black. Linen is a cellulose fibre, depending on how the fibres are processed from the flax plant; bleached linen is white; unbleached linen ranges from light cream or grey to dark tan in colour; Collier *et al*. (2009, 89).

120 *Gewand* in German; Lermann (1907, 88).

121 Richter (1968, 76).

122 A key point in Harrison's argument rests upon a single representation of two women undressing who are holding up garments where the upper and lower areas are of contrasting colours and textures: 'This appears to confirm our conjecture that the dresses were sometimes pieced together from separate lengths of differently patterned cloth'; Harrison (1977, 45, fig. 6.)

123 Benda-Weber (2018a, 55; 2018b, 131–132).

124 Schaeffer (1975); Ridgway (1993, 132).

125 'It has been suggested that the discrepancies in colour and texture between the upper and lower parts of the dresses of sixth-century korai with diagonal *himation* be explained by suggestion that the korai wore a separate skirt … This seems impossible because separate skirts in antiquity always took the form of wrapped kilts, and no open edges are ever shown in the skirts of the korai. From the way in which the folds are stacked symmetrically to either side of the *paryphe* in the korai, it is clear that both edges of the *paryphe* were firmly attached to the dress …'; Harrison (1977, 44 n. 17).

126 The figurine is from Axos and is in the Archaeological Museum in Rethymnon, Benda-Weber (2018b, 129).

127 Cleland *et al*. (2007, 92).

128 Acropolis Museum, inv. no. Acr. 675.

129 And indeed many others, see Richter (1968) or Karakasi (2003).

130 Van Wees (2005, 45).

131 Harris (2017, 688).

132 Jarva and Lipkin (2014); Harris (2017, 681–683).

133 Lee (2015, 40–41).

134 Lee (2015, 46).

135 Lyons (2003); Meyers (2013); Brøns (2017, 46–47).

136 McNeil (2005).

137 Mueller (2010).

138 Karakasi (2003, 16–17, 70–71).

139 Barber (1991, 361); Meyers (2013).

140 Richter (1968, 75, figs 386–372).

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Chapter 6

The colour of cult: Artemis Brauronia and the *krokotos*

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Abstract

This paper explores the ways in which colour, and specifically the saffron yellow textile known as the krokotos*, was integral to the cult of Artemis Brauronia, both at her sanctuary site in Brauron and on the Athenian Acropolis. It highlights the links between Artemis Brauronia, Athenian girls, femininity and saffron textiles. It does so through a close examination of the Brauron Clothing Catalogues (355–336 BCE); visual evidence of textile dedication on a white-ground drinking cup* (kylix) *from Brauron (Brauron inv. no. 689); and Vinzenz Brinkmann's colour reconstruction of the Peplos Kore (Acropolis Museum, 679).*[1] *By revealing the intimate associations between Artemis Brauronia and the rich saffron textiles donned, dedicated, displayed and depicted at her sanctuary sites, it seeks to provide broader insights into the significance and symbolism of colour in the dynamic religious landscape of ancient Greece.*

Introduction

Colour is rarely the first thing that comes to mind when considering ancient Greek religion or religious practice. Yet for the site of Brauron, one of Artemis's most important Attic sanctuaries, located on the coast 27 km south-east of Athens, the significance of vibrant yellow textiles cannot be emphasised enough. It is here that the penteteric[2] festival of the *Arkteia* was held, a rite of passage intended to mark the maturation of young Athenian girls from childhood to adulthood. The central ritual of the *Arkteia* involved young Athenian girls playing the bear (*arktos*)[3] and wearing a special garment dyed with saffron known as the *krokotos*.[4] The saffron-coloured garment was essential to the successful completion of the festival which was considered to be the means by which the girls might safely secure their sexual maturity and, hence, ensure fertility for the Athenian populace as a whole.

It is at Brauron too that Iphigeneia is thought to have a *heröon*, a shrine or monument dedicated to a Greek or Roman hero, and to receive cult worship. Literary sources describe women's dedication of textiles in her honour, presumably in thanks for healthy childbirth.[5] Iphigeneia herself is also described by Aeschylus as shedding the *krokotos* prior to her sacrificial death at the hands of her father, Agamemnon, in what might potentially be interpreted as a purposeful echoing of the ritual language associated with the *Arkteia*.[6] In any event, it is apparent that the bright yellow of saffron-dyed cloth permeated the experience of the ritual at the site, making the sanctuary of Brauron particularly suited to a study of the visual, archaeological, literary and epigraphic evidence for the relationship between colour and cult, in this case specifically the association between Artemis Brauronia and the *krokotos* (Fig. 6.1).[7]

This paper will focus on the visual links between Artemis Brauronia, Athenian girls, femininity and saffron textiles.[8] In so doing, *krokotos*, both as a colour and as a garment, is shown to be symbolically and aesthetically appropriate for invoking Artemis Brauronia in ritual performance. The paper begins by reviewing evidence from literary texts for the ritual use of the *krokotos* at Brauron and elsewhere and its relationship to divinity.[9]

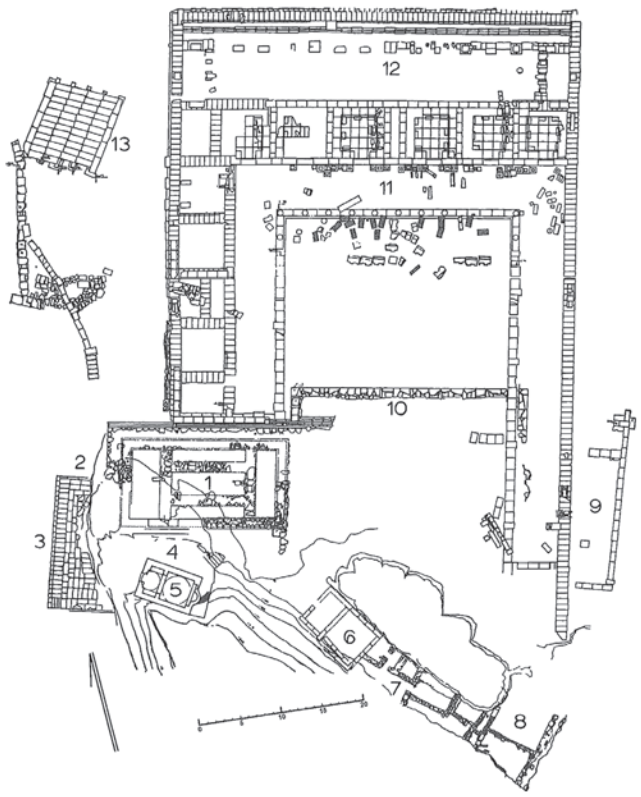

Fig. 6.1. Plan of the sanctuary of Artemis at Brauron. 1. Temple of Artemis; 2. Spring; 3. Western terrace; 4. Rock-cut terrace; 5. Chapel of Ag. Georgios; 6. 'Small Temple'; 7. Buildings within the cave area; 8. 'Sacred House'; 9. Eastern building; 10. Polygonal terrace; 11. Great stoa; 12. Northern section of the stoa; 13. Bridge. After Ekroth (2003, 68). © By kind permission of the author.

It then focuses on epigraphic evidence for the dedication of saffron-coloured garments from the Brauron Clothing Catalogues found on the Athenian Acropolis, listing numerous dedications of textiles to Artemis at her sanctuary in Brauron for the years 349–335 BCE.[10] It next examines the visual evidence for textile dedication to Artemis Brauronia found on a fragmentary white-ground *kylix* (cup) from Brauron which appears to depict a young female offering a vibrant yellow cloth at an altar. It concludes by utilising Vinzenz Brinkmann's colour reconstruction of the Peplos Kore, and in particular the yellow mantle that appears on that statue, to suggest that the figure may have served as a representation of Artemis Brauronia on the Athenian Acropolis.

Literary evidence for the *krokotos*

Literary texts, ranging from Homeric epic to comedies of the Classical period, provide evidence that saffron was indicative of divinity and support its specific ritual function at Brauron. Aristophanes defines saffron's significance in relation to Artemis at Brauron, describing how:

> ἑπτὰ μὲν ἔτη γεγῶσ᾽ εὐθὺς ἠρρηφόρουν·
> εἶτ᾽ ἀλετρὶς ἦ δεκέτις οὖσα τἀρχηγέτι,
> καὶ χέουσα τὸν κροκωτὸν ἄρκτος ἦ Βραυρωνίοις·
>
> As soon as I turned seven I was an Arrephoros;
> Then when I was ten I was a grinder for the Foundress;
> And shedding my saffron robe I was a Bear at the Brauronia;[11]

Aristophanes provides invaluable evidence for the use of the *krokotos* in the *Arkteia*, the coming-of-age festival held at Brauron for Athenian girls aged 5–10 years.[12] The festival, characterised by the shedding of the *krokotos* by the young girls playing the bear, seems to have included a *pannychis*, a ritual celebration that lasted through the night, as well as a procession from the Brauroneion on the Athenian acropolis to Brauron.[13] That the *krokotos* comes up without further elaboration in the play suggests the intimate familiarity of the Athenian audience with the *Arkteia* and identifies the shedding of the saffron robe as the ritual activity at the festival's core.

Iphigeneia, also honoured at the site of Brauron, is described as shedding a saffron garment in Aeschylus's *Agamemnon*.[14]

> κρόκου βαφὰς δ᾽ ἐς πέσον χέουσα
> she shed to earth her saffron robe[15]

Sourvinou-Inwood interprets this shedding by Iphigeneia as echoing the girls' shedding of the *krokotos* at the *Arkteia*, an integral part of the ritual completion of one phase of life and movement on to the next.[16] Ekroth argues for the possibility that the *krokotos* in Aeschylus could also be interpreted as a bridal veil, marking Iphigeneia as the future bride-to-be for Achilles.[17] The presence of the *krokotos* and the ritual language of the *Arkteia* in plays that would have been performed in front of audiences who themselves participated in and viewed Attic cult highlights the nexus of associations that identify the *krokotos* and its yellow colouring as significant in the worship of Artemis Brauronia.

One should not, however, assume that saffron and the *krokotos* did not also have other meanings in the context of Athenian religion and religious practice. In Euripides' *Hecuba*, for example, Athena's *peplos*[18] on the Acropolis is described as saffron, yoked with horses, and embroidered in colourful, flower-dyed threads.[19] Saffron, then, also has associations with Athena through the ritual weaving and dedication of a *peplos* to the goddess as part of the Panathenaia, the important ancient Greek festival held in honour of the goddess Athena at Athens every four years.[20] In addition to being characteristic of the *Arkteia* and of Athena's *peplos* on the Acropolis, saffron robes are also mentioned in early Greek lyric and epic works as worn by Eos (*Il.* 8.1), Hera (*Il.* 14.348), Enyo (Hes. *Theog.* 273), the nymphs (Hes. *Theog.* 358) and the Muses (Alk. 85 A), among others.[21]

The *krokotos* and the Brauron Clothing Catalogues

The association between saffron textiles and Brauron can be explored further by focusing on a distinct body of evidence, the Treasury Records of Artemis Brauronia (IG II² 1514–1530).[22] The inscriptions listed in these records provide additional evidence of a different type that reveals the importance of saffron-coloured garments for ritual practice at Brauron. The extant records provide perhaps 'the single most significant body of epigraphic evidence for Greek clothing in the late Classical period'.[23] The importance of colour for these garments, and the particular significance of the *krokotos*, cannot be ignored.

Cleland, using Barthes' semiotic theory as laid out in his seminal work *The Fashion System*, sees the way that colour terms are used in the textile catalogue as indicative of emphatically marked variants of colour.[24] The very act of description is a choice which 'marks' certain features deemed significant in a particular context. All garments have colour, but there are only certain instances in the case of the dedicated garments where this colour is marked and therefore made significant.[25] Within the 33 items where complete descriptions are preserved, seven items are described as *krokotos*, among which 'three use [the term] substantively, and three use it in conjunction with terms describing, not garment type, but only decoration or decorative form'.[26] According to Cleland, 49 of the fragmentary descriptions include colour/decoration. For base colour, there are four fragmentary instances of white (*leukos*), eight of saffron (*krokotos*), 12 of purple (*halourgos*), two of blue-grey (*glaukos*) and one of green (*batracheion*).[27]

The substantive use of the word *krokotos* is distinctive in the context of the Brauron textile catalogue, indicating the relative importance of the colour as an explicitly marked aspect of a textile offering.[28] Here, the descriptor, the colour term *krokotos*, may be seen as all-subsuming, insofar as the garment is described purely in terms of its colour, implying that this was the most significant feature both in identifying the garment and carrying its connotations.[29] The term as used in the Brauron Clothing Catalogues may even go so far as to indicate a specific role for the garments, given saffron's strong associations with ritual use *in situ*, as well as broader connotations of femininity and womanhood.[30] The frequent use of the term *krokotos* as both a substantive and a single descriptive term in the Brauron Clothing Catalogues emphasises the conceptual and symbolic importance of the colour for textile dedications at this particular sanctuary.

But how were saffron garments actually treated in a ritual context at Brauron? One line from the Brauron Clothing Catalogues provides rare evidence for the use of a *krokotos* to adorn a statue of divinity, possibly a cult statue, likely housed within the sanctuary:

> κροκωτὸν διπλοῦν ποικίλην τὴν πεζίδα ἔχει τὸ ἄγαλμα τὸ ὀρθὸν ἔχει (*IG* II² 1522.28/9)[31]
>
> saffron, double-layered, garment, with ribbons, the upright statue has it (trans. Cleland)

Thus, in addition to literary evidence for saffron textiles being worn by the young girls taking part in the *Arkteia* and more generally being offered as dedications, the *krokotos* was used to decorate a cult statue in the sanctuary at Brauron, as indicated by the epigraphic evidence.[32] The other textile dedications made to cult statues at Brauron as recorded in the clothing catalogues include: a garment of diaphanous material known as a *tarantinon*,[33] an *ampechonon* (a female outer garment used for wrapping around the body);[34] an embroidered mantle with two fluttering corners known as a *katastikton dipterygon*;[35] a *chiton amorginon* (an inner garment made of fine linen from the Cycladic island of Amorgos);[36] a white encircling wrap (*enkyklon*);[37] a child's *chitoniskos* (a short *chiton* worn primarily by women and children);[38] a *peripoikilos* (richly patterned) *chitoniskos*;[39] two *kandyes* (Persian garments with sleeves);[40] and two white *himatia*.[41] The *krokotos* was therefore not exclusively dedicated to statues of Artemis at Brauron. Yet it is one of few distinguished for its colour. Along with the *kandyes*, it is also the only garment for which the active verb *ekho* ('to have'), indicating possession ('the statue has …'), is used with respect to the cult statue at Brauron.

Saffron textiles thus emerge in the epigraphic evidence as having a unique association with Artemis at Brauron. This is further supported by comparison with other temple inventories from the Heraion at Samos, Artemis Kithone at Miletos and various sanctuaries at Delos, Tanagra and Thebes, where *krokotos* rarely comes up as an adjective or substantive descriptor of textile dedications and, furthermore, does not appear to be worn or possessed by the statues themselves.[42] In the account of the treasurers of the Heraion on Samos (*IG* XII 6.1.261), the verb *ekho* is applied to a cult statue wearing a white *himation*;[43] this is never, across the extant corpus, the case for the *krokotos* – except at Brauron. Furthermore, the *krokotos* appears as a dedication only once outside Brauron, in a temple inventory from Tanagra.[44] This cumulative evidence emphasises the specific ritual associations of textiles, and particularly that of the *krokotos*, with Artemis at Brauron.

Visual evidence for textile dedication

An image on a fragmentary white-ground *kylix* (Fig. 6.2) from the Sanctuary of Artemis at Brauron provides additional visual evidence for the dedication of coloured textiles, allowing a further exploration of how colour may have functioned in ritual contexts to indicate a particular deity. The fragments, dating to 470–450 BCE, depict a young girl in profile, her black hair looped into a bun, wearing a *stephane*, a diadem-like women's headdress, and large earrings. She is dressed in a patterned *chiton* and has a

sheer, flowing *himation* draped over her left shoulder. In her right hand, she pinches a leafy sprig delicately between her fingers. In front of her, slightly above knee level, a yellow folded cloth hangs before the base of an altar.[45] The textile consists of six vertical folds, articulated in fine brown and yellow lines, with the folds closest to the female figure being shortest, while the rightmost folds, near the altar, extend down the furthest. The cloth's colour is rendered in a thick, orange-yellow paint, concentrated within the textile's outline and clearly differentiated from the white background.[46] The altar, visible at far right, is the focus of the female's offerings, and her prayers. But what of the colour of the cloth? Can it be interpreted as a textile dedication of a *krokotos*, perhaps to Artemis or Iphigeneia?

The cup, with its unique scene of ritual textile dedication where the colouring of the cloth being dedicated is still visible, was likely to have functioned as a votive dedication at Brauron, where saffron garments are known to have been worn by young girls, to have adorned cult statues and to have been dedicated to divinity.[47] Of the other white-ground *kylikes* which bear yellow colouring, it is difficult to definitively identify the colouring as saffron or the *krokotos*, also due to the rarity of having a specific provenance. Perhaps most notable is a white-ground *kylix* depicting Hera, *c.* 470–460 BCE, from the Staatliche Antikensammlungen, Munich (inv. no. 8958002676), where the mantle of the goddess has a deep golden-yellow tone, in comparison to the white background and reddish border of the garment.

If the Brauron image does indeed depict a textile dedication, then the dedication of a white-ground cup with the representation of such a scene can perhaps be seen as a substitution for, or supplement to, the dedication of actual woven cloth.[48] Cups were among the most common dedications at sanctuary sites, making up from one-third to one-half of all pottery dedications on the Athenian Acropolis. These objects may either have been used to pour libation, making them part of the functioning of the sanctuary, or might have been conceived of as possessions of the goddesses, as dedicatory inscriptions of *ta iera* (the sacred items) seem to suggest. The significance of the *krokotos* at Brauron and its links to the worship of Artemis Brauronia enhance the particular association of the image represented on the cup with the site. The white-ground technique chosen allows for colours (yellows, oranges, purples, reds) to be depicted in

Fig. 6.2. White-ground kylix*, 470–450 BCE, depicting a scene of textile dedication at an altar. Archaeological Museum of Brauron, no. 689. © Hellenic Ministry of Culture and Sports/ Ephorate of Antiquities of East Attica.*

a manner that black and red-figure pottery does not allow. This raises the possibility that white-ground is particularly appropriate for depicting scenes where colour matters, such as those of textile dedication.[49]

The archaeological provenance of the object from the Sanctuary of Artemis Brauronia supports its identification as a possible votive dedication.[50] Ioannis Papadimitriou, the archaeologist responsible for the major excavations of the site in the 1950–1960s, describes the many white-ground *kylix* fragments excavated by his team, including those inscribed '*ieron*' or '*iera Artemidos*', phrases frequently found in votive inscriptions meaning 'sacred [object]' or 'sacred [object] of Artemis', respectively.[51] These fragments were found at the small sanctuary at the entrance of the prehistoric acropolis at Brauron and the excavator compared their quality to that of similar finds from the Acropolis and Eleusis.[52] Based on the excavation reports, it seems that the largest numbers of high-quality pottery sherds from the 6th century were found between the small temple and the larger temple of Artemis to the west,[53] along with some of the Brauron Clothing Catalogues.[54] A fragment of a white-ground *kylix*, attributed to the Sotades Painter and displayed in close proximity to the fragment discussed here in the Brauron Archaeological Museum, is specifically identified by Papadimitriou as having been found between the small sanctuary and temple to Artemis outlined above, near the cave where worship of Iphigeneia took place.[55] This votive deposit may be where the fragment in question also comes from.

Both the dedication of textiles represented in the tondo of Brauron no. 59 and the white-ground vessel itself were likely to be sacred offerings intended for Artemis Brauronia or Iphigeneia. The relative importance of *krokotos* at Brauron outlined above in terms of literary and epigraphic evidence allows the yellow colouring of the garment to be viewed in a new light, serving as an iconographic marker which has the potential to identify the dedicatee of object and image alike. Without the colouring of the cloth, it would be difficult, or even nearly impossible, to make an assumption about the dedicatee of either the representation or the cup based on iconography alone, given the evidence for donation of textiles for Athena, Artemis, Leto, Demeter and Kore, Hera, Eileithyia, Dionysos, Hermes and Asklepios.[56] In this case, the 'markedness' of the textile in reference to a particular colour, yellow, allows the viewer to distinguish between divinities and identifies the cup as associated specifically with the sanctuary site of Brauron. The scene of ritual textile dedication, with the remaining thick traces of yellowish-orange slip, corroborates the epigraphic evidence from the clothing catalogues, dating to 150 years later, for the dedication of textiles at Brauron. Other white-ground *kylix* fragments from the site seem also to display tantalising clues about practices of ritual dedication, presumably taking place *in situ*.[57] However, more work is needed to examine the corpus of white-ground *kylikes* in relation to the iconography of textiles and, particularly, to the use of colour. Nonetheless, the fragments examined here serve to highlight the significance of *krokotos* and its essential role in the worship of Artemis at Brauron.

The Peplos Kore

In 1886, the Greek Archaeological Society discovered 14 Archaic *korai* – statues of maidens – on the Athenian Acropolis. These fourteen *korai* are especially notable for the traces of blue, green, red and brown pigments on their surfaces, bearing witness to their original dazzling polychromy.[58] This is presumably due to the particular conditions (or date) of the deposit in which they were found.[59] Among the finds was a *kore*, found near the northernmost wall of the Acropolis, who seemed already then to be stylistically different from the other female statues and who eventually became known as the Peplos Kore (Fig. 6.3) because of her unique attire.[60] The *korai* are usually interpreted by scholars as either particular goddesses or young girls serving

Fig. 6.3. The Peplos Kore, 530 BCE, marble, from the Acropolis of Athens. Acropolis 679. © Acropolis Museum, 2018. Photo: Yiannis Koulelis.

as *kanephoroi* or *arrephoroi*, in both cases attributions intended to delight.[61] While the majority among them wear flowing, folded *chitons* and draped, diagonal *himations*, in Brinkmann's colour reconstruction, the Peplos Kore wears three separate garments, a white, pleated *chiton* under a red, tightly fitting *ependytes* with an animal frieze, cloaked by a folded saffron mantle with rich hem decorations.[62] The garments on the lower half of her body are close-fitting, leading to a unified cylindrical shape whose apparent archaising character has been interpreted by Brunilde Ridgway as a deliberate reference to the wooden cult statues of goddesses typically referred to as *xoana*.[63]

Although the Peplos Kore's stylistic and vestimentary differences to the other *korai* sculptures have been noted from early on,[64] the Peplos Kore has long been viewed as one of the outstanding examples of the *kore* type.[65] The Peplos Kore has also been central to the study of ancient polychromy. The famous French archaeological draughtsman Émile Gilliéron painted the sculpture in watercolour in 1887, presumably shortly after it was excavated from the north wall of the Acropolis (Fig. 6.4).[66] In 1975, classicist R.M. Cook had a plaster reconstruction of the Peplos Kore made, painted in what were thought to be the original colours, for the Museum of Classical Archaeology in Cambridge, England, where it continues to be displayed to this day.[67] Most recently, Vinzenz Brinkmann and Ulrike Koch-Brinkmann undertook the study of the Peplos Kore's polychromy using a variety of advanced technological methods; these resulted in the rather different colour interpretation (Fig. 6.5) on which the argument in this section is based. Brinkmann's colour reconstructions for a number of the other Acropolis *korai* further differentiate the so-called Peplos Kore from the other sculptures.

Brinkmann proposes yellow as the base colour of the Peplos Kore's top garment, which he interprets as a mantle.[68] This colour interpretation is based on observation and analysis of small quantities of yellow ochre on the front side of the sculpture in 2007.[69] This also corroborates the yellow traces visible on Gilliéron's 1887 watercolour, which captures remains of yellow pigment, presumably still visible on the freshly excavated sculpture.[70] Brinkmann further supports the choice of yellow as the base colour in describing how 'in favor of th[e] choice [of yellow ochre] were comparisons with other marble works[71] as well as the degree of surface weathering. The surviving small blue crosses of the scattered pattern must undoubtedly have been visible and have stood out against the colour of the clothing'.[72] If Brinkmann's colour interpretation holds, the bright yellow colour of the Peplos Kore's mantle would have marked her as visually distinct on the Athenian Acropolis, where green, red and blue dominated as the base colours for the garments of the other Acropolis *korai*.[73]

Her distinctiveness is supported by additional details of her attire. Underneath her upper garment, between the folds of yellow fabric, the *kore*'s scarlet *ependytes* is visible, decorated with 14 registers of animals, including panthers, lions, boars, rams and hybrid creatures such as sphinxes, as well as riders.[74] This attire is again unique among the *korai* of the Acropolis. Scholars have noted the garment's Eastern associations and its appropriateness for a representation of a divinity.[75] The garment is characterised by its cylindrical, sheath-like form and rich decoration[76] and was also worn by Artemis Orthia at Sparta, Artemis in Ephesus, Hera on Samos and Aphrodite at Aphrodisias.[77] Previous to *c*. 510 BCE, it is thought that an expensively woven *ependytes*, an outer garment of Eastern origin associated with divinity, was also dedicated to Athena on the Acropolis.[78] The *ependytes*, which Brinkmann assigned to the Peplos Kore, strongly suggests that she represented a goddess.[79] The two drill holes in her right hand have been identified by Brinkmann as possible fastenings for the placement of two metal arrows, attributes of the goddess Artemis.[80] On top of her head, 35 drill holes may indicate the location of an additional metal attribute, a crown or the *meniskoi* (literally 'crescent moons', made out of metal and mounted on a statue's head to keep birds away) suggested by Ridgway.[81] Taken together, the aspects of the *kore*'s iconography and polychromy outlined above strongly support an identification with Artemis. If the Peplos Kore can indeed be identified with Artemis, as both her iconography and polychromy seem to support, then the cumulative evidence does indeed associate her with Artemis Brauronia, a possibility all the more likely if Brinkmann's convincing reconstruction is accepted.

Statues of Artemis at Brauron and the Brauroneion

The Brauroneion, dating to the mid-6th century, and located on the south-west of the Athenian Acropolis, south-east of the Propylaia, brought the worship of Artemis Brauronia into the centre of Athenian religious life.[82] It was likely to have been a project of the Peisistratids, tyrants of Athens at the time, who were from the *deme* or township of Philaidai, where Brauron is located, and thus reaped political benefits from the building of a satellite sanctuary of Artemis on the Acropolis.[83] Although archaeological evidence for the structure is scarce, it seems to have consisted of a Π-shaped *stoa* (covered walkway or portico) and a number of rooms of uncertain function, perhaps intended to work as treasuries storing prized goods.[84]

Pausanias, when visiting the Athenian Acropolis in the 2nd century CE, mentions seeing a Praxitelian statue of Artemis on display at the Brauroneion.[85] During his visit to Brauron, he also describes an ancient *xoanon*,[86] which he claims is still there.[87] Scholars have yet to come to a consensus on how many statues of Artemis were at Brauron, since the Brauron Clothing Catalogues contain terms that could potentially refer to multiple statues at the Sanctuary.[88] In the Brauron inscriptions, the 'seated statue' (*IG* II^2.1514.22–23) and 'the old seated statue' (*IG* II^2.1514.35/36) have been

Fig. 6.4. Watercolour of the Peplos Kore by French archaeological draughtsman Émile Gilliéron, made soon after the kore*'s excavation. After Staïs (1887, pl. 9).*

Fig. 6.5. Colour reconstruction of the Peplos Kore. © Brinkmann et al. *(2017).*

associated with the presence of a portable wooden cult statue at Brauron,[89] while Despinis argues for the association of the other terms with acrolithic statues, fragments of which he identifies in the storerooms of the Brauron Archaeological Museum. The use of the descriptive term *ὀρθόν* ('standing', 'straight', 'upright')[90] to describe one of the statues supports at least a conceptual association with the Peplos Kore, which could plausibly have been intended to represent the wooden cult statue of Artemis at Brauron in the form of a marble replica displayed on the Athenian Acropolis.[91]

In any case, the Praxitelian statue seen by Pausanias on the Athenian Acropolis sets a precedent for the Brauroneion as a locale where at least one statue of the goddess Artemis would have been displayed, in this case one sculpted by an artist as famous as Praxiteles himself. The dating of the Brauroneion on the Athenian Acropolis to the mid-6th century makes it feasible for the Peplos Kore to have been displayed or in some way associated with the site prior to the Persian invasion, with her scarlet, animal-frieze *ependytes* and arrows identifying her as Artemis, and her saffron mantle suggestive of Artemis Brauronia. Just as the Brauron Clothing Catalogues, copies of which have also

been found on the Athenian Acropolis, link the dedications made for Artemis at Brauron to the Brauroneion, so it can also be argued that the Peplos Kore, marked in the eyes of the ancient viewer by her saffron mantle, which various epigraphical and art historical sources tie closely to women's ritual at Brauron, may have been intended to serve as a representation of Artemis Brauronia at the Brauroneion on the Athenian Acropolis.

Conclusion

In this paper, the associations between Artemis Brauronia and the *krokotos* have been explored using literary, epigraphic, visual and archaeological evidence. The yellow colour of garments in a ritual context has been shown to have had strong associations with Artemis Brauronia, the goddess presiding over liminal coming of age rituals for young Athenian girls. Through exploring the connections between Brauron and saffron robes in literary texts, the significance of colour for ritual practice at the site has been established. The extensive catalogue of textile dedications from Brauron has confirmed the markedness of the *krokotos* for women offering sacred garments at the Sanctuary of Artemis at Brauron and has also revealed that the *krokotos* was used to dress one of the cult statues in the sanctuary. The fragments of a white-ground *kylix* from the Archaeological Museum of Brauron have provided visual evidence for textile dedication, while the white ground technique has highlighted the special relevance of the *krokotos* in the representation on a cup which was likely dedicated to either Artemis or Iphigeneia. Finally, it is most likely that Brinkmann's reconstruction of the Peplos Kore represented Artemis Brauronia on the Athenian Acropolis and, perhaps, particularly one of the cult statues housed at her Sanctuary at Brauron. This conclusion is built upon the evidence already discussed earlier and assumes the identification of the goddess Artemis to be correct.

Together, these various forms of evidence reveal the multi-hued and multi-faceted existence of colour, and specifically the *krokotos*, at the sanctuary site of Artemis at Brauron. It is all too easy to be blinded by the whiteness of worn-down marble, by arid and dusty archaeological sites and by seemingly colourless inscriptions. However, by presenting the case for such a close association between Artemis Brauronia and the rich saffron textiles donned, dedicated, displayed and depicted at the site, this paper has hopefully provided broader insights into the significance and symbolism of colour in the dynamic religious landscape of ancient Greece.

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Notes

1 Brinkmann *et al*. (2017).
2 Occurring every five years, counting inclusively, ***i.e.*** a festival held every four years.
3 See (Parker 2007, 238) for a discussion of what it means to 'play the bear'.
4 For the *krokotos*, see Lloyd-Jones (1983, 94); Ure (1955, 90); Sourvinou-Inwood (1988, 119–124).
5 Eur. *IT* 1462–1467.
6 Aesch. *Ag.* 239. See Ekroth (2003, 67) for further discussion.
7 The *krokotos*, outside of its specific religious context at Brauron, was conceived of more generally as an emblem of femininity and sexuality. See Sourvinou-Inwood (1988, 127); Benda-Weber (2014, 129–142). For textile production in Classical Athens, Spantidaki (2016). On the importance of textiles in antiquity and a discussion of the relevant methodologies for their study, Harlow and Nosch (2014, 1–33).
8 From as early as the Minoan period, the wall-paintings from Akrotiri appear to indicate that saffron was connected with female divinity and coming-of-age rituals. See Rehak (2004, 85–100). The laborious process for producing saffron dye, one of the finest dyes known in antiquity, required roughly 160,000 flowers to produce approximately 1 kg of dye. Day (2011, 337–79); Lee (2016, 93).
9 Arist. L*ys.* 42–45, 46–48, 219–220; Arist. *Ecc* 879; Eur. *Hec.* 465–474.
10 Cleland (2005, 1).
11 Arist. *Lys*. 641–647. Translation: Jack Lindsay (1926).
12 Sourvinou-Inwood (1971, 339).
13 See Themelis (1973, 17); Lavelle (2005, 173).
14 Euripides also informs us that Iphigeneia is to be the priestess of Artemis at Brauron. After her death, she will receive the textile offerings of women who have died in childbirth (Eur. *IT* 1462146–7). See Ekroth (2003) for further discussion of the *krokotos* and cult of Iphigeneia at Brauron.
15 Aesch. *Ag.* 239.
16 Sourvinou-Inwood (1988, 132).
17 Ekroth (2003, 64).
18 The *peplos* is an ancient Greek garment made of one large piece of rectangular cloth, and is characterised by a deep fold along the top, creating an overfold or *apoptygma.* The *peplos* was fastened at the neckline and armholes by pins (*fibulae*).

19 ‘ἢ Παλλάδος ἐν πόλει
τὰς καλλιδίφρους Ἀθα-
ναίας ἐν κροκέῳ πέπλῳ
ζεύξομαι ἆρα πώ-
λους ἐν δαιδαλέαισι ποικίλλουσ’
ἀνθοκρόκοισι πήναις’
Eur. *Hec.* 466–471.
‘Or in the city of Pallas, the home of Athena of the
lovely chariot, shall I then upon her saffron robe yoke
horses, embroidering them on my web in
brilliant varied shades.’
Translation: E.P. Coleridge in Oates and O’Neill (1938).

20 Haland (2004, 155–182).

21 Later on in the 5th century, Pindar describes the male heroes Jason and Herakles in relation to the *krokotos* (*Pyth*, 4.232; *Nem.* 1.38).

22 EM 7929 (IG II² 1515), EM 7930 (IG II² 1516), EM 7924–7926 (IG II² 1517), EM 5294 (IG II² 1518), EM 7927 (IG II² 1519), EM 7928 (IG II² 1520), EM 7934 (IG II² 1521), EM 7931 (IG II² 1522), EM 7933 (IG II² 1523), EM 5561 (IG II² 1526), EM 5562 (IG II² 1527), EM 7935 (IG II² 1528), EM 7936 (IG II² 1529), EM 7937 (IG II² 1530) and EM 7938 (IG II² 1531). The first of these inscriptions (now known as *IG* II² 1514) to be discovered came to England as part of the Elgin Collection. See Linders (1972, 2–4). Inscribed fragment EM 7932 (IG II² 1524) has been transferred to the Acropolis Museum since 2009.

23 Cleland (2005, 1).

24 ‘“variants” in this conception are the aspects of description which vary meaningfully in relation to each other. For example, the category “colour” *excludes* all those descriptive terms which do not seem to have a colour meaning, and so on’ Cleland (2005, 79).

25 Cleland (2005, 80).

26 Cleland (2005).

27 Cleland (2005, 96).

28 Only three colour terms, *halourgis* (purple), *batrachis* (green) and *krokotos* (yellow), appear as substantives for garments, with *krokotos* being the most frequently appearing among these. Cleland (2005, 71).

29 Cleland (2003, 159).

30 Cleland (2005,161).

31 Cleland (2005, 34).

32 According to Romano (1980, 130) ‘the evidence suggests that probably only cult statues, as distinct from votives, wore real clothing’. On archaeological evidence for various cult statues at Brauron, Despinis (2005).

33 *IG* II² 1514, 37: ταραντῖνον περὶ τῶι ἕδει τῶι ἀρχαίωι (a *tarantinon* around the old seated statue). N.B. all definitions of ancient Greek garment terms from Cleland (2005, appendix 1).

34 *IG* II² 1514, 34: 36: ἀμπέχονον, Αρτέμιδος ἱερὸν ἐπιγέγραπται, περὶ τῶι ἀρχαίωι (an *ampechonon*-wrap marked as sacred to Artemis, around the old seated statue).
IG II² 1514, 36: ἀμπέχονον περὶ τῶι ἕδει τῶι ἀρχαίωι (an *ampechonon*-wrap around the old seated statue).

35 *IG* II² 1514, 38: κατάστικτον διπτέρυγον περὶ τῶι ἕδει τῶι ἀρχαίωι (an embroidered garment with two (‘wings’?) around the old seated statue).

36 *IG* II² 1514, 22–23: χιτῶνα ἀμόργινον, περὶ τῶι ἕδει (a *chiton* of fine Amorgian linen around the seated statue).

37 *IG* II² 1524*B* 223–224: ἐνκυκλον λευκόν … περὶ τῶι ἀγάλματι (a white encircling wrap … around the statue).

38 *IG* II² 1514, 26–29: τοῦτον τὸ λιθινον ἕδος ἀμπέχεται χιτωνίσκον καρτὸν παιδεῖον ἀνεπίγραφον, παρυφὴν ἔχει θερμαστίν (this covers the stone seated statue: a child’s *chitoniskos*, shorn-smooth, uninscribed. It has a woven tong-pattern border).

39 *IG* II² 1524*B* 227:: χιτωνίσκος κτενωτὸς περιποίκιλος. περὶ τῶι ἀγάλματι τῶι ὀρθῶι (a spiky-bordered *chitoniskos* patterned all over. Around the upright statue).

40 *IG* II² 1523 27–28; *IG* II² 1524*B* 204: κάνδυν τὸ ἄγαλμα ἔχει (a *kandys*, the statue has it).

41 *IG* II² 1514, 27–28: ἱμάτιον λευκὸν παραλουργές. τοῦτο το λιθινον ἕδος ἀμπέχεται (a white *himation* with purple border. This covers the stone seated statue).
IG II² 1524B, 205–206: ἱμάτιον λευκ; περὶ τῶι ἀγάλματι, ῥάκος (a white *himation*: around the statue, *rhakos*).

42 Brøns (2016, appendix 2); for gold woven textiles in the Delos temple inventories, see Prêtre (2017, 13–16).

43 *IG* XII 6.1.261, 27.

44 *SEG* 43: 212 (B), 8.

45 The fragmentary condition of the *kylix* does not permit us to determine from where the cloth hangs.

46 To be able to establish the application of pigment (as well as its type) with certainty, further select microscopic examination would be necessary. Close visual examination of the object deems unlikely, in my opinion, the colour of the cloth as resulting from residue or corrosion, due to its concentration in the area demarcating the garment.

47 Additional examples of yellow colouring on white ground include a white-ground *lekythos* with second white, a thicker, purer white often used for adding details, attributed to the Pan Painter, *c*. 490 BCE (State Hermitage Museum, inv. no. ΓΡ-8068), which depicts Artemis in a long orange *chiton*, as well as an outline white-ground *alabastron* attributed to the Pasiades Painter, *c*. 510–500 BCE (British Museum, inv. no. 1887,0801.61), depicting a maenad and an Athenian woman wearing *chitons* of a bright yellow hue as well. For further examples, see Wehgartner (1980); Mertens (1977; 2006).

48 Wagner (1997, 47–54).

49 For techniques of polychromy on white-ground *lekythoi*, see Koch-Brinkmann (1999). There is also some use of added colours in both black-figure (n.b. the work of the Swing Painter) and red-figure, but never to the effect achieved on white-ground vessels. See Neils (2008) for links between white-ground technique and femininity on Attic white-ground *lekythoi*.

50 The exact find spot of Brauron no. 59 (Archaeological Museum of Brauron, inv. no. 689) is not specified by the excavator. For relevant excavation reports, see Papadimitriou (1956; 1957; 1958; 1961; 1962). For description of iconography, see Wehgartner (1980, 94).

51 Papadimitriou (1949, 90).

52 Papadimitriou (1949, 81).

53 See Fig. 6.1.

54 Unfortunately, the correspondence between the clothing catalogue inscriptions found at Brauron and the copies from

the Acropolis published in *IG* remains unpublished to this date.

55 Papadimitriou (1957, 28).

56 Brøns (2016, 63).

57 Archaeological Museum of Brauron, inv. nos 52–57. For additional visual evidence of ritual practice at Brauron through a special group of Attic vases, see Kahil (1963; 1977).

58 For *korai*, see Stieber (2004, 181). In 480 BCE, both the sanctuary at Brauron and the Athenian Acropolis were burned down by the Persians. Subsequently, the *korai* were carefully buried on the Acropolis in pits. For the destruction of the Acropolis by the Persians and its aftermath, see Kousser (2009, 263–272).

59 Kavvadias (1886, 75); Kavvadias and Kawerau (1907).

60 The head was found first, and due to stylistic differences with the archaising body, the two fragments were only joined at a later date. See Brinkmann *et al.* (2007, 45).

61 Stieber (2004, 21). For *korai* more generally, see Payne and Young (1936); Richter (1968); Holloway (1992); Ridgway (1993); Karakasi (2003); Keesling (2003).

62 Following Brinkmann *et al.* (2017, 35–39). Staïs (1887) asserts the *kore* wore a *chiton*, an upper garment, and a third garment, enveloping the upper torso and arms; Kalkmann (1896, 46–48) states the statue wears a *peplos,* due to the typical overfold or *apoptygma*, although with an atypical separation over the right arm; Lechat (1903, 188, 325–330) also supports the classification of her garment as a *peplos* with overfold; Payne and Young (1936, 18) propose a *peplos* worn over a *chiton*. Ridgway (1977, 50, 55) discusses two garment combinations, 1) *chiton,* 2) *peplos* with overfold, then described as 1) *chiton,* 2) *peplos*, 3) small cape; Keesling (2003, 136) argues for a *peplos* instead of a *chiton* and *himation*; Brinkmann *et al.* (2017, 46) identify four garments, 1) chiton, 2) *ependytes*, 3) knee-length waistcoat with rich hem decorations, 4) short cloak in a matching pattern.

63 Ridgway (1977, 59).

64 Lechat (1903, 71).

65 Lechat 1903, 78).

66 Staïs (1887, pl. 9).

67 Cook (1978, 84–87); Lapatin *et al*. (2008, 126).

68 Brinkmann 2017, 38.

69 The examination techniques used for the Peplos Kore include scanning electron microscopy, infrared luminescence photography and UV-VIS absorption spectroscopy. Brinkmann and Koch-Brinkmann (2020, 158).

70 These traces of yellow are especially visible on the watercolour gouache depicting the backside of the statue. See Staïs (1887, pl. 9); Brinkmann and Koch-Brinkmann (2020, 158).

71 Presumably other Archaic *korai* from the Acropolis.

72 Brinkmann *et al.* (2007, 50). No white pigment has been preserved, so in the exclusion procedure this also cannot be a viable alternative. On the importance of colour contrast in the polychromy of the Archaic *korai*, Stieber (2004, 72).

73 Stieber (2004, 72). Cf. the yellow pigment used to decorate the garment of Phrasiklea. Brinkmann *et al.* (2010, 19 –196).

74 Brinkmann *et al.* (2007, 46).

75 See Miller (1997) on Athenian use of Persian clothing elements. Brøns (2017, 259).

76 For comparanda, a female wooden statuette from the Heraion, Samos also appears to wear an *ependytes* covered by a second garment similar to the Peplos Kore's mantle, see Brøns (2016, 190).

77 Brinkmann *et al.* (2017, 38).

78 Brinkmann *et al.* (2017).

79 Ridgway (1977, 58); Neer (2010, 119).

80 Brinkmann *et al.* (2007, 51). In contrast, Ridgway (1977, 57) and Keesling (2003, 136) identify only one hole. Both Ridgway and Keesling also support a possible identification with Artemis.

81 Ridgway (1977, 49–61).

82 Parker (1996, 76) also places the inception of the *arkteia* in the mid-6th century BCE.

83 It is not uncommon in the 6th century for tyrants to manipulate cult for political purposes, and in fact, most monumental architecture of the time is linked to wealthy aristocratic families. Lavelle (2005, 173).

84 Rhodes and Dobbins (1979, 325). Hurwit (1999, fig. 3 no. 5). Note the similar Π-shape of the Brauroneion to the stoa at Brauron.

85 'Πραξιτέλους μὲν τέχνη τὸ ἄγαλμα, τῇ θεῷ δέ ἐστιν ἀπὸ Βραυρῶνος δήμου τὸ ὄνομα' Paus. *Description of Greece* 1.23.7. For further discussion, Despinis (2010). For possible evidence for animal sculpture on display at the Brauroneion, Morizot (1993, 29–44).

86 The validity of the term *xoana* as applied to cult statues and idols has been brought into question for the past century or so. Here, I am using Romano's definition of *xoanon*, the representation of divinity which serves as the focus of worship of a divinity at a particular shrine or sanctuary. For a further discussion of *xoana*, see Bennett (1917, 6–21); Romano (1982); Donahue (1988); Gaifman (2006; 2012).

87 'ξόανον μὲν δὴ καὶ αὐτόθι ἐστὶν Ἀρτέμιδος ἀρχαῖον' Paus. 1.33.1.

88 'ἄγαλμα ὀρθόν' (*IG* II².1514.34/39) or 'ἑστηκός,' 'ἄγαλμα' (*IG* II² 1523.27/8), 'ἕδος' (*IG* II² 1514.22/3), 'λίθινον' (*IG* II² 1514.26/28), 'τὸ ἕδος τὸ ἀρχαῖον' (*IG* II² 1514.35/36). See Tréheux (1964, 1–6); Despinis (2010).

89 The 'ἕδος' (*IG* II² 1514.22/3) and 'τὸ ἕδος τὸ ἀρχαῖον' (*IG* II² 1514.35/36). See SEG 53.174 for further discussion. For wooden finds from Brauron: Poligiorgi (2015, 123–216).

90 *IG* II² 1514.34/39.

91 Both Neer and Ridgway have previously suggested that the Peplos Kore might be the representation of a cult statue from Brauron. See Ridgway (1977, 58–59); Neer (2010, 120).

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Chapter 7

Furniture textiles in Classical and Hellenistic iconography

Dimitra Andrianou

Abstract

Modern practices such as the stuffing of chairs and couches with soft materials and the covering of the stuffed parts with fabric tacked to the wooden frame were probably unknown in the ancient world. People nevertheless sought comfort by using different kinds of furnishings, as is shown from the excavated evidence and, particularly, from the visual representations of furniture on vase and wall-paintings and reliefs of the Classical and Hellenistic periods in Greece and Italy. Pillows, sheets and mattresses on bed-couches (klinai)*, and pillows on footstools, signify the need of comfort. Textiles were also used instead of architecture to denote the separation of spaces: curtains divided space within a room or visually separated the interior from the exterior space. Decorated wall-paintings on the ceiling of Hellenistic tombs suggest the presence of textiles and, specifically, cloth canopies called baldachins.*

Introduction

In his 15th *Idyll* set in Alexandria, Theocritus, who was writing in the 3rd century BCE, presents two women examining embroideries hanging in the sanctuary of Adonis during a festival of the god.[1] Gorgo and Praxinoa, like the chorus of the *Ion*, or the women in Herodas' fourth *Mime*, might be considered naive viewers. For them, the success of the art they see is conceived in terms of its realism. Yet they also demonstrate that they are actively observing the textiles in front of them. They explicitly describe Adonis and the other figures in the embroidery as though they are living beings but, at the same time, are fully conscious that they are looking at a work of art. They vocalise their wonder and amazement to the irritation of the stranger standing next to them.[2]

> Gorgo: Praxinoa, do come here. Before you do anything else I insist upon your looking at the embroideries. How delicate they are! And in such good taste! They're really hardly human, are they?
>
> Praxinoa: Housewife[3] Athena! The weavers that made that material and the embroiderers who did that close detailed work are simply marvels. How realistically the things all stand and move about in it! They're living! It is wonderful what people can do. And then the Holy Boy [Adonis]; how perfectly beautiful he looks lying on his silver couch, with the down of manhood just showing on his cheeks …
>
> Second Stranger: Oh dear, oh dear, ladies! Do stop that eternal cooing.
>
> *(to the bystanders)* They'll weary me to death with their ah-ah-ah-ing.
>
> (Theocritus, *Idyll*, XV, 78–88, translation J.M. Edmonds)

Ancient textiles and the art of their production need to be interpreted against a background framed by these viewers' perspective. This is especially true both of the textiles used to cover furniture and of those used instead of furniture as these were also intended to be items of display. Bdelikleon, in Aristophanes' *Wasps*, orders his father Philokleon to admire the woven hangings of the court in an attempt to educate him about how to behave amongst sophisticated society; it seems that a well-bred guest was expected to ingratiate himself with his host by commenting on domestic textiles.[4] At the same time, a long tradition of the pursuit of comfort has placed textiles at the heart of the material life

of the house and the tomb. With the arrival of upholstery, furniture and textiles became complementary concepts[5] but this was not the case in antiquity when textiles often served a structural function: carpets, rugs and cushions made up for the absence of wooden or marble furniture. The fact that special furniture pieces, such as large chests, were created for the storage of textiles (apparently both clothing and home furnishings) that were called 'precious heirlooms' in Athenaios,[6] suggests how great was the quantity of textiles used (and possibly produced) inside houses.[7] In vase painting, clothing is shown as folded on chairs or inside chests rather than hanging on nails on the wall, making large chests significant items of household furniture.[8] Based on later evidence, such chests worked also as tokens of display. They were often richly decorated and placed in visible positions in the house, signalling to visitors and guests a sense of lineage, taste and wealth by suggesting (rather than displaying) their contents.

Literary sources contain a wealth of nouns and adjectives referring to furnishings (especially bed covers) which survive in the works of Homer, Athenaios, Pollux and the Attic stelai that lists the confiscated property of Alcibiades and his followers.[9] As with the vocabulary for furniture, the same word can be seen to be used for different kinds of textiles. For instance, the word *περίστρωμα* in its singular form apparently refers to a bed cover, but in the plural refers to carpets or hangings.[10] The polysemy found in ancient Greek words used for furniture and textiles may be due to the fact that ancient Greek, as with many other languages, was slow to adapt to changes in material culture and, instead of creating new words, expanded the meaning of already existing ones. In linguistics this is known as a referential cause of semantic changes. At the same time, versatility also played a major role, as will be discussed below.

Despite the literary ambiguity, iconography (on vases, reliefs, wall-paintings and mosaics) provides ample evidence about the various types and uses of furniture textiles in the eastern Mediterranean world. Images and words complement each other and help fill in the gaps left by the rather limited material evidence. At times, the images can even be used to better understand textiles mentioned in the textual sources, and vice versa. Moreover, as the evolution of furniture textiles is rather slow, evidence from Geometric to Roman times can be used to understand usage in a variety of periods and over a wide geographical area.

When associated with furniture, textiles increase comfort (for example pillows), enhance utility (bed covers) and drape house interiors (curtains).

Bed sheets and pillows

In iconography, social practices, such as dining during a *symposion* (banquet) in an *andron* (the special room for a banquet in a house), required material props both in terms of furniture and domestic textiles. This is unsurprising, given that the literary evidence about textiles from the 5th and 4th centuries BCE is rather impressive.[11] *Symposion* scenes outnumber any other iconographic category on the vase painting and funerary reliefs that depict textiles since *klinai* (bed-couches) are usually shown with mattresses and pillows (προσκεφάλαια, κνέφαλα) that are oblong in shape (Fig. 7.1) and filled with feathers, wool, dry leaves, straw or hay (called πλήρωμα or κνέφαλλον in the sources).[12] Pillows are placed on the side of the *kline* to add comfort[13] and are usually used to support the diners' elbows (called ὑπαγκώνια), an arrangement later enhanced by a straight support at the head of the *kline*[14] that evolves into the later *fulcrum* (S-shaped head rest).[15] Pillows are often decorated with stripes (probably produced by inserting weft threads of different colours when weaving on the loom)[16] or geometric designs that resemble stars covering either the entire surface[17] or lining a woven or embroidered edge.[18] Complex geometric patterns (meanders or chevrons, for instance) on certain pillows may indicate tablet or back-strap loom weaving.[19] Many of these decorative borders may have been produced separately and then attached to the furniture textiles.[20] Oblong, cylindrical pillows (banana-shaped) were often quite thick and were occasionally used as mattresses on couches.[21] In short, up until the late 4th century BCE mattresses are pillows with larger dimensions. Further proof of this is provided by ancient etymology: the word *τύλη* used to denote a mattress originally meant swell, with the connotation of something bulky.[22] The word κνέφαλλον on the Attic stelai is interpreted as both a cushion and a mattress. By the late 4th century BCE, as will be seen, mattresses have become thicker and look more like modern mattresses than ancient pillows.

In iconography each symposiast is provided with his own pillow,[23] occasionally folded in half,[24] and sometimes more than one.[25] The *symposion* scene on an Attic red-figure *stamnos* signed by Smikros from 510 BCE is enlightening in terms of pillow design;[26] it is decorated by a tassel[27] and features pillows quite similar to those depicted on a contemporary red-figure *kalyx krater* (large vase for the dilution of wine with water) attributed to Euphronios (*c.* 520–500 BCE).[28] Both are decorated with the saw-tooth weaving pattern. Pillows were occasionally objects of such luxury that the participants in a banquet 'hesitated to press their elbows against them'.[29] In the literary sources leather pillows (προσκεφάλαια σκύτινα) were apparently items of display; they are listed among the property of Alcibiades and his followers.[30] A special word is reserved for a weaver of cushion covers (τυλυφάντης).[31]

Textiles become even more important when furniture is absent: in *symposion* scenes double pillows, elongated pillows[32] or mattresses can stand in for couches.[33] Such gatherings were presumably often held in houses with fewer pieces of furniture or none at all, or were impromptu gatherings

held inside or outdoors. Poorer households borrowed utensils and textiles from neighbours: in Menander's *Dyskolos* Getas, the servant, asks his wealthier neighbour Knemon repeatedly if he can borrow certain equipment in order to set up a *symposion* for the men (τοῖς ἀνδράσιν).[34] During a festival at Sparta special banquets (κοπίδες) were laid out under tents near the temple of the god and participants reclined on beds of leaves (στιβάδας ἐξ ὕλης) strewn with carpets.[35] Here, carpets over leaves make up for the absence of couches and mattresses. On Delos, bedding on its own (*i.e.* not accompanied by furniture) was sufficient during certain religious festivals,[36] whereas in Magnesia, by the Maeander River, beds, bedding and tables were offered to foreigners.[37] Scenes on painted vases make it clear that wineskins[38] or animal skins could also provide comfort.[39] Certain deities, such as Dionysos, customarily used a panther's skin on their couch.[40] A red-figure vase in Laon, France reveals that pillows could also be used to support a person's back when leaning against something rigid (such as a wall) while playing the flute.[41] In this particular example, the sides of the pillow are probably 'open' (*i.e.* not sewn together).

Beyond the *symposion*, pillows and mattresses are depicted in mythical, sacred or funerary scenes. A unique depiction of a thick but pliable mattress paired with a thick, stiff pillow is shown on the *kline* of Danae being seduced by Zeus on a *krater* (mixing vessel for wine) in St Petersburg.[42] The sagging mattress of Danae's *kline* is elaborately decorated with a pattern of lines and dots arranged in a diamond motif, while the pillow at the head of the bed bears identical bands of stripes down its seam. The side of the pillow and the side of the mattress are iconographically similar. The flexibility of the *kline* has most probably been exaggerated in order to accentuate both Zeus' force as the golden rain impregnating Danae and her inviting, cradling form.[43]

Pillows suggest comfort in situations where comfort is essential: a fragment of an inscribed *lekythos* (oil-flask) from the Athenian Agora dated to the third quarter of the 4th century BCE shows Sikelia leaning against thick pillows on a couch (Fig. 7.2).[44] Another female figure stands at the right in a protective gesture, her right arm behind Sikelia. Such depictions on funerary stelai are interpreted as scenes of women who died during childbirth, attended by a midwife.[45] Apparently Sikelia, a slave, died while giving birth.

Sleeping naturally required pillows: a patient, cured during sleep in Amphiaraos' hands, is shown on a 4th-century relief lying on a bed with a thick pillow.[46] Eternal sleep in *ekphora* scenes required ὑπανχένια, pillows designed specifically to provide support under the neck.[47] In the absence of cushions, rolled-up garments might be used[48] or a bundle of clothes[49] or, especially when travelling, possibly a sack.[50]

Bed sheets are commonly depicted in *symposion* or love scenes: an embracing couple is shown covered by a single blanket on a couch (or pillow?) on a red-figure cup.[51] Design and colour coordination of sheets and pillows is occasionally

Fig. 7.1. Female stuffing a pillow, lekythos *by the Brygos Painter, 5th century BCE. Harvard Art Museums/Arthur M. Sackler Museum, Gift of Schimmel Foundation, inv. no. 1991.28. Photo: © President and Fellows of Harvard College.*

Fig. 7.2. Sikelia leaning against pillows, marble lekythos*, third quarter of the 4th century BCE. After Grossman (2013, inv. no. 170, I 6603). Photo: American School of Classical Studies at Athens: Agora Excavations.*

sought, as on a 4th-century BCE *kalyx krater* by the Kadmos Painter[52] and in the *symposion* scene in the tomb at Agios Athanasios at Thessaloniki.[53] In funerary interiors, the colourful draped *klinai* from the tomb of Amarynthos, Eretria, dated to the second half of the 3rd century BCE stand out (Fig. 7.3 a, b).[54] Occasionally humour pairs the decoration of the pillow with the decoration of a drunken Skythian's garment, making a visual pun on the verb σκυθίζειν (to drink immoderately).[55]

In the Etruscan 3rd-century BCE Tomb of the Shields (*Tomba degli scudi*) in Tarquinia, the couch of the dining couple appears to be spread with cushions and rugs (possibly made in the tapestry technique) instead of light bed sheets, since the material over the couch has a feeling of heaviness (Fig. 7.4).[56] It would appear that the ancient word δάπις or τάπις is used in the literary sources to describe both a bed and seat covering and a carpet. Specific references note that expensive garments might double as tapestries hung on the walls, the ceiling or between columns.[57] Owing to the way Greek textiles were made, versatility was a basic characteristic: a rectangular piece of cloth could be used as a personal garment, a bed cover or a decorative hanging, as described in Homer[58] and Aristophanes.[59]

Smell plays an important part in the experience of textiles and it is of course something that cannot be captured through the visual evidence: bed clothes are described as 'sweet smelling' (ῥοδόπνοα στρώματα) and were apparently perfumed with herbal ingredients such as rose leaves.[60] Citrons placed among garments are known to have protected them from moths and apparently left a distinctive perfume on the textiles.[61]

Klinai draped with long bed sheets commonly appear in the 4th century BCE and become quite frequent on the Hellenistic reliefs in the East that depict banquet scenes. In a shallow relief panel on a stele found in the Athenian Agora (north of the Painted Stoa), dated to the third quarter of the 4th century BCE, a figure, presumably male, is reclining on such a *kline*.[62] The textile here is highlighted at the expense of the *kline* legs, as the bed sheet is wrapped around the leg, hiding it completely. The depiction of a sheet turning around the leg of a couch may be deliberately chosen to reveal an ἀμφιτάπις, a reversible blanket or sheet.[63] The same idea appears on a relief from Kyzikos, Anatolia, with a weight hanging from the end of the cloth.[64] Such weights are a common addition in the Hellenistic period and, apart from ornamentation, may have been used to suggest lighter textiles that required a means to keep them flat and in place.

Fig. 7.3. A. Amarynthos Tomb, Eretria, painted kline*, second half of the 3rd century BCE. After Huguenot (2008, col.pl. 82.1). Photo: Courtesy of the Swiss School of Archaeology in Greece.*

Although bed sheets on *klinai* have largely not survived in the archaeological record in Greece, ornaments possibly belonging to a gold-woven bed sheet – gold bells with clappers apparently sewn on to its fringe – were found along with gold strips in Tomb A at Katerini, northern Greece, dated to the second quarter of the 4th century BCE (Fig. 7.5).[65] They may have acted both as weights and as ornamentation.

Ptolemy's pavilion, described by Athenaios, had Persian carpets (called ψιλαί) that hid the space between the legs of the couch and were decorated with beautiful designs and figures woven with considerable skill.[66] Eloquent examples of similar pieces of textile include the low draped couch on a red-figure *kalyx krater*[67] and the *klinai* on the Late Hellenistic Myrina terracottas which possibly depict the Milesian bed covers so celebrated in the texts.[68] In examples where the *klinai* have sculpted legs (and specifically legs with sphinxes), the valance turns at the edge but does not hide the leg of the *kline*.[69] All decorative details were carefully and meaningfully planned to serve as a direct reference to the wealth of the household.

Bed coverings are also depicted in another special iconographic schema, the so-called 'Theoxenia of the Dioskouroi,', an institution of a ritual meal offering, known mainly through epigraphical sources, that denotes an ideal or actual *xenismos* for a God or hero.[70] On the *hydria* (water

Fig. 7.3. B. Amarynthos Tomb, Eretria, painted kline*, second half of the 3rd century BCE. After Huguenot (2008, col. pl. 83.1). Photo: Courtesy of the Swiss School of Archaeology in Greece.*

Fig. 7.4. Facsimile of the Tomba degli scudi *(Tomb of the Shields), Tarquinia. The tomb dates to the 3rd century BCE. Ny Carlsberg Glyptotek, HIN 175. Photo: Ole Haupt.*

Fig. 7.5. Gold bells from a textile, Tomb A, Katerini, northern Greece, second quarter of the 4th century BCE. After Schmidt-Dounas (2017, col. pl. 26.3). Photo: Courtesy of B. Schmidt-Dounas.

vessel) by the Christie Painter dated to 440–430 BCE, an empty couch and a table provided with food and two *kantharoi* (drinking cups) show that the divine twins are expected among the worshippers.[71] On the *hydria* by the Kadmos painter exhibited at the Archaeological Museum of Plovdiv, a *kline* is covered with embroidered material and has two oblong pillows on either side.[72]

Mattresses

Although it is difficult as yet to trace a chronological development for furniture textiles, a clearer trajectory can be established for mattresses. As mentioned earlier, mattresses had become thick and more like modern mattresses than pillows by the late 4th century BCE. On a late 4th-century BCE *krater*, Hades and Persephone sit on what look like two mattresses, placed one on top of the other; the lower one is possibly decorated with additional materials that look like pearls.[73] Decorative embellishments are known to have been used on garments since the 6th century BCE: the so-called Lady of Aigai was buried with an overgarment adorned with large gold strips sewn on to its edge.[74]

Fig. 7.6. Valance on a kline*, marble relief, Late Imperial period. Vienna, Kunsthistorisches Museum inv. no. I 1085. After Pfuhl-Möbius (1977, no. 2020).*

In the 2nd century CE, on a series of reliefs from Odessos, mattresses reveal an intriguing detail: the way they have been decorated may suggest an early form of upholstery or a neatly folded textile.[75] If upholstered, small wooden pegs placed at regular intervals may have secured the fabric to the stuffing of the mattress, thus creating the radial folds visible on the reliefs. If folded, there is other evidence of folded garments worn by statues of the late 3rd century BCE.[76] Furthermore, evidence of cloth presses has been discovered: metal fittings of a cloth press uncovered in a fullery at Pompeii; a painting of a cloth press also from Pompeii; and what must have been a cloth press reconstructed from carbonised pieces at Herculaneum. These discoveries constitute contemporary evidence and support the idea that textiles were tightly folded.[77]

Valances

Shorter bed sheets with decoration distinctly different from that of the rest of the bedding, and hanging from the edge of the bed frame under the mattress, can be identified as valances (Fig. 7.6).[78] On the rock-cut *kline* inside the Moustapha Pasha tomb in Alexandria, three pillows are shown on each side along with a richly fringed cloth painted to look as if it is hanging below the lower crosspiece of the *kline*.[79] Small golden female figures (no longer visible) poised frontally on their toes, with windblown veils encircling their heads, embellish the horizontal and vertical sides of the cloth and are replicated on the vertical band of the mattress. Paired on the mattress and tapestry bed-cloth, these figures simulate fine weaving or embroidery wrought with golden thread.

Gold ornamentation on textiles also appears in scenes featuring divine figures: on a pottery fragment from Taranto, bearded Dionysos holding his *thyrsus* reclines on a richly decorated *kline*.[80] His left elbow propped on a pillow, he rests on a lushly patterned sheet with a wonderful *bordure* with sphinxes and a fringe. Although it is impossible to make out the manufacturing technique with any degree of certainty, the dark background with lighter decoration may suggest a purple-dyed woollen textile woven with gold thread (possibly the χρυσοβαφεῖς of Pollux),[81] presumably in the tapestry technique. This is similar to the famous textile found in the small golden *larnax* (funerary urn) inside a marble chest on the south side of the antechamber of the so-called Tomb of Philip at Vergina.[82] The rectangular and non-trapezoidal pieces, recently reconstructed, can be recognised as the short sides of a funerary textile with a gold background (made of metal strips) and dyed porphyry (purple) wool for the vegetal decoration.[83] This remarkable piece of cloth was produced from a warp of woollen thread and a weft of gold metal strips. The fact that figures (even portraits) could be woven into fabrics is recorded in Callixenus of Rhodes; in his description of gold tunics and military cloaks, he notes that 'some having portraits of kings woven in them' were exhibited in Ptolemy Philadelphus' pavilion.[84] Such textiles would certainly have required specialised workshops where both weavers and goldsmiths could work alongside each other.

Cushions

Long benches or footstools used to climb onto high beds were either equipped with a cushion for extra comfort (for example the Belevi sarcophagus),[85] known as ὑπηρέσιον in the literary sources,[86] or simply draped.[87] Footstools provided not only comfort but protection from crawling insects. On a Lucanian *lekythos* (oil flask) a richly decorated cushion is possibly being used instead of a footstool.[88]

Seats, usually of the backless type, were enhanced by thin or thick cushions.[89] Folding chairs (the famous δίφροι ὀκλαδίαι) were also equipped with cushions from the 6th century BCE onwards.[90] Cushions in the form of elongated but thin pillows are common in the 5th century BCE and were sometimes decorated with fringes.[91] Thicker cushions seem to have been preferred from the middle of the 4th century BCE, a consequence perhaps of the desire for more comfort as well as developments in stuffing and stitching methods. The material used for stuffing was likely to be a mixture of carded wool, straw and leaves. Vertical stitching may have also added additional loft to the piece. As noted earlier, the same holds true for mattresses, with thicker mattresses introduced around the same period as the thicker cushions.

Fig. 7.7. Elaborate pillow on seat, relief, possibly 3rd century CE. Archaeological Museum of Komotini, Greece. Inv. no. ΑΓΚ 30. After Andrianou (2017, no. 57). Photo: D. Andrianou/Ch. Simatos.

On a relief from Samos, dated to the 2nd century BCE, an elaborate and particularly thick pillow is shown on a stool,[92] while on a relief from Asomatoi in Aegean Thrace, the woman Bendi is seated on another highly decorated cushion next to a monopode table (Fig. 7.7).[93] The texture of cushions is indicated on certain Imperial reliefs, such as a thick stool cushion on a relief from the Athenian Agora, where a coarser fabric is suggested by short strokes made with a curved chisel, while a thinly carved channel denotes the seam.[94] Two distinct kinds of cushions are evidenced on a relief now in Erlangen,[95] while on a relief from Smyrna a cord apparently decorates the side seam.[96]

A piece of textile was evidently a sufficient covering for seats with backs[97] (Fig. 7.8) or backless seats placed against a wall.[98] The purpose of a short piece of drapery

Fig. 7.8. Textile on seat, marble relief, second quarter of the 4th century BCE. After Grossman (2013, no. 14, S 2870). Photo: American School of Classical Studies at Athens: Agora Excavations.

over a seat is not immediately obvious: if not purely for decoration, it may have been an attempt to hide the poor construction or appearance of the seat[99] or to add some warmth in colder weather. Additional warmth may be the reason behind the use of sheepskins spread beneath cushions on seats, as for example on a relief from Eressos, Lesbos[100] and on another relief stored in the Çanakkale Museum.[101] Draped cushions are also depicted on relief fragments from the Athenian Agora,[102] and sometimes a piece of cloth is shown underneath the cushion, evidently to add some beauty.[103]

Hangings

In addition to providing comfort, textiles were used to protect from cold and insects or to shape an interior or exterior space. Heavy curtains provided warmth, acting as insulation for domestic interiors. They also created some sense of privacy in ancient households, a notion which was otherwise non-existent. Relief scenes often depict curtains either demarcating an outdoor space or creating a 'special' separate space within the house;[104] these are sometimes attached to the wall or ceiling[105] (Fig. 7.9) or to a column as a backdrop.[106] Athenaios, in reference to Cleopatra's wedding in Cilicia, mentions walls hung with embroidered clothes.[107] Curtains hung all around a room are mentioned for Caranus' wedding banquet, where a special mechanism apparently drew the curtains back.[108] Here, as in the dialogue from Theocritus' *Idyll* with which this paper began, guests noticed and commented on curtains admiring them for their beauty and style. Their aesthetic value is furthermore replicated in tombs: in the 4th-century tomb at Capua, a curtain is depicted on the gabled roof, with its folds rendered realistically in the treatment of light and shade (chiaroscuro) with a dark band at mid-height.[109]

When associated with portable furniture, curtains become canopies; the heavy textile is supported on four poles that

Fig. 7.9. Hanging curtain as a backdrop, marble relief, 1st century BCE. Istanbul, Archaeological Museum inv. no. 5380. After Pfuhl-Möbius (1977, no. 1647).

define an exterior space. Such canopies are known through vase iconography (for instance, when Achilles is mourning under his fringed tent after losing Briseis);[110] and imitated in funerary contexts, such as the Etruscan Tomb of the Hunter (*Tomba del cacciatore*).[111] The latter example proves that great originality was already present by the end of the 6th century (510–500 BCE) with the imitation of a splendid hunting tent consisting of slender wooden poles, a fabric ceiling decorated with a colourful chequerboard design and transparent (possibly linen) curtains for walls. This particular curtain hides an amazing detail: the wavy hemline gives the impression that the cloth is swaying in the wind. The small squares that decorate the curtain may have been either embroidered or, more simply, made by inserting an additional thread while weaving.

Tent-like ceilings in tombs are interpreted to be cloth canopies (baldachins) expressing the heroic status of the deceased.[112] Already in the Geometric period, the motif of a *kline* under a baldachin decorated with a chequerboard design is known through depictions of the *prothesis* (funeral procession) of the deceased on *kraters*.[113] This chequerboard design may indeed signify a funerary pattern that survived for a long time in other funerary contexts. This is particularly the case in the painted Etruscan tombs in Tarquinia: in the Tomb of the Leopards (*Tomba dei leopardi*) (480–470 BCE), for example, the funerary *symposion* is apparently held outdoors, judging by the plants in front of the *kline*, but under a tent, if the chequerboard design on the ceiling represents a textile (Fig. 7.10).[114] The same chequerboard design adorns the ceiling of a loculus (niche) in Tomb 2327 (Bertazzoni Tomb), dated to the beginning of the 4th century BCE.[115]

The interior of the Tomb of the Funeral Couch (*Tomba del letto funebre*) in Tarquinia, painted around 460 BCE, is also made to look like a large pavilion, open in front and hung with a curtain held up by foliage-bedecked poles.[116] In the centre stands a huge couch adorned with heavy embroidered coverlets (Fig. 7.11). The repetitive character of the design on the ceiling is evocative of a patterned textile that has already been found in more elaborate examples dating to the Mycenean period.[117]

The elaborately decorated ceiling of the late Hellenistic Anfushy Tomb II (room 2) in Alexandria is considered to be reminiscent of the banqueting pavilion of Ptolemy II in Alexandria which, as described by Athenaios,[118] was adorned with Phoenician hangings.[119] Although painted, it gives the impression of a canopy with a trellis that overlaps a tapestry which has remarkable figurative scenes (now lost) woven into its two outer bands. The outermost border of the tapestry had 28 figured scenes, and the inner border 20, divided from one another and defined by the crossing slats of the trellis. Tapestry imitation appears frequently in tombs in Egypt (Alexandria and Gabbari), South Russia and Cyprus. More specifically, in Hellenistic Cyprus, examples of decoration imitating woven textiles stretching over the whole funerary chamber come from rock-cut tombs 1 and 2 at the locality of Ammoi (north of the ancient walls of Nea Paphos).[120] In Tomb 1, the 'knots' in the tassels of both short sides that hang down onto the vertical side walls make the drapery look even more realistic. These tombs are thought to belong to well-to-do Cypriots emulating the style and trends of Alexandria and thereby displaying their status. This is not surprising, given that Cyprus formed part of the Ptolemaic Kingdom in the Hellenistic period.

At Gabbari, the western necropolis of Alexandria, the Fort Saleh Tomb I interweaves Greek and Egyptian motifs by positioning a Greek *kline* between Egyptian decorative elements. Dated to the Late Ptolemaic period, the

Fig. 7.10. Facsimile of the end wall of the Tomba dei leopardi *(Tomb of the Leopards), Tarquinia.* c. *480–470 BCE. Ny Carlsberg Glyptotek, no. HIN 133. Photo: Ole Haupt.*

Fig. 7.11. Facsimile of the end wall from the Tomba del letto funebre *(Tomb of the Funeral Couch), Tarquinia.* c. *460 BCE. Ny Carlsberg Glyptotek, no. HIN 176. Photo: Ole Haupt.*

sarcophagus imitates a bed with finely turned legs, a *fulcrum* (head rest) to hold the head in place and a painted bed-cloth with richly varicoloured bands descending almost to the ground.[121] The ceiling of the loculus has been decorated to suggest rich drapery, creating a baldachin that may possibly be an imitation of Persian ceremonial canopies placed over the throne.[122]

All these painted versions of textiles provide a picture of the valuable household and funerary textiles that have long since been lost. However, occasionally by pure luck an item is discovered which supports the interpretations made: a multi-coloured textile was excavated in the late 4th-century BCE Tomb Γ at Sedes in Thessaloniki which is presumed to have covered the wooden roof of the tomb.[123] Unfortunately, this small remnant of cloth disintegrated soon after its recovery. The same fate befell the cloth from the mid-5th-century BCE Thracian tomb at Golemata Mogila (modern Bulgaria) which is now known only thanks to a sketch by Bogdan Filow.[124] In the Macedonian tomb of Eurydice at Vergina,[125] however, many small gold discs with the Macedonian star were found scattered over the disintegrated organic material of the antechamber; these were interpreted as decoration for a large piece of cloth which possibly hung high above the floor. The list of Macedonian tombs with painted ceiling decoration suggesting woven fabrics is quite impressive[126] and leaves no doubt that certain tombs were adorned with either stretched or hanging textiles, possibly in the way that curtains have been shown suspended in relief iconography.

If the quality and art of textiles were praised in antiquity, one may ask why painted versions of textiles in tombs were used instead of real fabrics? One explanation may be related to differences in preservation: a painted version of a cloth would have accompanied the deceased into eternity, thus fulfilling its purpose, whereas a woven one would have decayed alongside its owner. Another explanation may be related to cost: a painted imitation may have been cheaper than the real thing, as was most likely the case in earlier periods.[127] Additionally, gold woven textiles with added metal attachments, such as the cloth from Katerini (Tomb A) with hanging gold bells, would have required the close collaboration (and added cost) of a weaver and a goldsmith working together in a specialised workshop in addition to the expense of the precious raw materials.

In conclusion, the dialogue between textiles and architectural decoration including furniture is apparent. Four examples of this interconnecting relationship stand out: the ceilings of tombs imitated textiles or were draped with real textiles; certain motifs (such as the turreted motif, called πυργωτόν in the literary sources)[128] in painting and mosaic were related to weaving;[129] the vividly painted friezes, full of motion, painted on the vertical beams of *klinai* were replicated in embroidery on mattresses;[130] and decorative mosaic panels laid in the centre of a room acted like woven rugs, as can be seen in the Hellenistic period example from room 2 of the Pappalardo House at Morgantina in Sicily.[131] The preference for mosaics over rugs is most probably related to ease in cleaning: pebble mosaics are easily flushed with water whereas rugs would have required more arduous cleaning and drying. Finally, textiles can act as substitutes for architectural features: simple linen sheets used as partitions instead of walls can create intimacy, change or generate character within multi-functional rooms.

Bringing all the threads together, the observation of textile iconography in domestic and funerary contexts and the rich literary evidence combined with the few but valuable remains of ancient textiles mark out a colourful world in which fabric complemented or even substituted for furniture. Textiles that outfitted the household were thought to be synonymous with the domesticity of civilised life. Furthermore, narrative representations woven onto textiles sometimes substituted for a woman's voice[132] or facilitated the preservation of oral traditions. The fabrication of complex woven patterns required the commitment to memory of a substantial amount of numerical and colour-related information. Memorised rhythmic chants (such as the ones described in *Odyssey* 5.59–62, 10.220–228) allowed weavers to both remember patterns and reproduce them as frequently as needed.[133] It is indeed remarkable how the intermingling of oral tradition and designs woven into textiles kept the stories alive; and how far these designs travelled and were replicated in other media.

Abbreviations

ARV²	Beazley, J.D. (1963) *Attic Red-Figure Vase-Painters*, 2nd edn. Oxford, Clarendon Press.
BAPD	Beazley Archive Pottery Database, electronic archive: https://www.beazley.ox.ac.uk/pottery/default.htm
CVA	*Corpus Vasorum Antiquorum* (1923–), multiple publishers.
ΚΓΑΜΘ I	Despinis, G., Stefanidou-Tiveriou, Th. and Voutiras, E. (eds) (1997) *Κατάλογος γλυπτών του Αρχαιολογικού Μουσείου Θεσσαλονίκης*, vol. I. Thessaloniki, National Bank of Greece Cultural Foundation.
LSJ	Liddell, H.G., Scott, R., Jones, H.S. and McKenzie, R. (1996) *Greek-English Lexicon*, 9th edn. Oxford, Clarendon Press.
PM	Pfuhl, E. and Möbius, H. (1977) *Die Ostgriechischen Grabreliefs.* Mainz am Rhein, P. Von Zabern.

Notes

1 For further discussion on this *Idyll* and on domestic textile production in 3rd-century Alexandria, see Whitehorne (1995).
2 Rusnak (2001).
3 Huswife in the original Loeb Classical Library text.

4 Ar. *Vesp*, line 1215.
5 Lucie-Smith (1997).
6 Ath. *Deipn*. III 84a.
7 Spinning and weaving were, according to Xenophon, the only skills that a young bride needed to bring with her to her new home (*Oec.* 7.6). The association of weaving with women's intra-domestic sphere is well established (see Reeder 1995, 200–202). Clothing signified a woman's authority and *arete* (a number of funerary reliefs depict the *kalathos* close to her seat), extending beyond the *oikos* itself; it mediated social interaction, played a role in the religious life of the community and served as a mechanism of exchange. Spinning was also performed by *hetairai*: Williams (1983, 96); Reinsberg (1989, 123–124).
8 See a clay votive *pinax* from Epizephyrian Locris (Tarent National Museum, inv. no. 8332).
9 Andrianou (2009, 97–98).
10 *LSJ* s.v. περίστρωμα.
11 Andrianou (2009, 90–91, 97–98, 99–101).
12 A *hetaira* (courtesan) is shown stuffing a pillow on a vase (Cambridge, Harvard University Art Museum, inv. no. 1991.28). For the literary references, see Poll. *Onom*. X. 41; Andrianou (2009, 97).
13 *ARV*² 275.47=BAPD 202883; *CVA* Firenze, Regio Museo Archeologico 2, pls 39.2, 42.2–4.
14 *CVA* Deutschland 88 (München 16) pl. 49 by the Makron Painter, 485 BC.
15 The famous relief from Thasos with the *symposion* scene (Istanbul Archaeological Museum, inv. no. 1947), dated to before 465 BCE, shows the edge of the mattress and two additional pillows on top of the *kline* in order to ease the recliner's position, Mendel (1912–1914, vol. II, 304–307, no. 578). This practice eventually led to the construction of the *kline* with a fulcrum.
16 *ARV*² 113.7, 1626, 1592=BAPD 200964.
17 *CVA* Germany 54 (Tübingen 5), pl. 18.3–4=BAPD 16846.
18 *ARV*² 449.4, 1653=BAPD 205338.
19 Apulian *kalyx krater*, 360–340 BCE (Metropolitan Museum of Art, inv. no. 10.210.17A, Rogers Fund 1910; Richter 1966, fig. 642) and *ARV*² 1083.6=BAPD 214546 (Brussels) for the geometric design on the pillow to the right of the *kline*. For the tablet weaving technique, see Spantidaki (2016, 72–74). To date there is no material evidence of tablet weaving or twill weave in Classical Greece although vase paintings seem to illustrate both techniques. Small portable frames were apparently used for ribbons on fabrics; such a frame is shown on a relief from the Rhaedestos Collection carried by a female figure (*ΚΓΑΜΘ* I no. 17, dated to the third quarter of the 4th century BCE). For back-strap looms and tablet weaving in Bronze Age Aegean see Burke and Chapin (2016, 31).
20 For the decorative techniques attested on Greek fabrics, see Spantidaki (2014; 2016, 78–85). Manufacturing techniques are often not discernible from pictures alone; more than one technique may be possible.
21 *ARV*² 113.7, 1626, 1592=BAPD 200964; *ARV*² 125.11=BAPD 201039.
22 *LSJ* s.v. τύλη.
23 *ARV*² 438.140=BAPD 205186.
24 *ARV*² 1083.6=BAPD 214546; PM 1600 from unknown location, dated to the 2nd century BCE (British Museum, unknown inv. no).
25 Venit (2002, 48–49: Bella and Moustapha Pasha tombs, Alexandria).
26 Baughan (2013, fig. 28: Brussels, Musées Royaux d'Art et Histoire A717).
27 This effect may have been added, or it may have been created by the longer warp threads of the fabric left as fringes, as shown on garments, see Spantidaki (2016, 65).
28 Baughan (2013, fig. 29: Munich, Antikensammlungen inv. no. 8935).
29 Ath. *Deipn.* IV 142a, with a certain degree of exaggeration in order to show how Spartans degenerated into luxury before Cleomenes III (*c.* 235 BCE).
30 *IG* I³ 422, lines 257–258; Andrianou (2009, 97).
31 Poll. *Onom*. VII.191.
32 On the elongated (banana-shaped) pillows depicted on ARV² 1645=BAPD 203241 a loop is found on the corner. The shape of the pillows and the loop may indicate circular weaving or sprang. I would like to thank Dr Kalliope Sarri for discussing these techniques with me in detail and providing me with additional bibliography.
33 Langlotz (1932, pls 195, 210= BAPD 2723); *ARV*² 1567, 316.3; *CVA* Deutschland 20 (München 5), pl. 225.2 with *hetairai* on the floor; *CVA* Deutschland 21(Berlin 2), pl. 64 with men on the floor.
34 Men. *Dys*. 913–930.
35 Ath. *Deipn.* IV 138f.
36 Ath. *Deipn.* IV 173e.
37 Ath. *Deipn.* IV 173f.
38 *ARV*² 367.93=BAPD 203885.
39 Richter (1966, fig. 178: Museo Archeologico Ferrara, inv. no. T311 and 285: Avery Brundage Collection California); *CVA* Deutschland 23 (Heidelberg 2), pl. 73.1 and *CVA* Deutschland 99 (Berlin 16), pl. 17.
40 Richter (1966, fig. 178, on a seat: Museo Archeologico Ferrara, inv. no. T311); Apulian red-figure *loutrophoros* (Staatliche Museen zu Berlin, Antikensammlung, inv. no. F 3264) dated to 350–325 BCE (on a *kline*).
41 *ARV*² 95.123=BAPD 200819.
42 *ARV*² 360.1, 1648=BAPD 203792.
43 This myth is shown on various vases, but this is the only example that stresses the force of the Father of Gods through the exaggerated depiction of the mattress.
44 Grossman (2013, no. 170: Agora inv. no. I 6603).
45 Other examples include a *lekythos* dated to 370–360 BCE, a Hellenistic stele from Alexandria and a 3rd-century BCE stele from Rhodes (Vedder 1988, figs 21.1, 23.2 and 25.1 respectively).
46 Kaltsas (2002, no. 425: National Archaeological Museum of Athens, inv. no. 3369).
47 *CVA* USA 15 (Cleveland Museum of Art I), pl. 15.
48 *CVA* Czech Republic 4 (Pilsen, Musée de la Bohème de l'Ouest 1), pl. 8, dated after 350 BCE.
49 *CVA* Deutschland 7 (Karlsruhe, Badisches Landesmuseum I), pl. 28, 520 BCE.
50 *CVA* Deutschland 23 (Heidelberg 2), pl. 71.1, 400 BCE.

51 *ARV²* 180.1=BAPD 201652; *CVA* Austria 1 (Vienna, Kunsthistorisches Museum I), pl. 23.
52 Richter (1966, fig. 179: Leningrad, Hermitage St, inv. no. 1807).
53 Tsimbidou-Avloniti (2005, pls 30–33).
54 Huguenot (2008, pls 46, 47 and 82, 83).
55 Mitchell (2004, fig. 9).
56 Steingräber (2006, 188)
57 Andrianou (2009, 100 with further references).
58 In Homer (*Il*. 5. 194) the term *peplos* is used for a garment and a furnishing for a chariot.
59 A particular type of goat-hair cloak (σισύραν) has a dual function: it is used as a garment by day and a coverlet by night (Ar. *Av.* line 122; *Nub.* line 10; *Ran.* line 1459).
60 Ath. *Deipn.* II. 48c.
61 Ath. *Deipn.* III 83d.
62 Grossman (2013, no. 133: Agora, inv. no. S 3562).
63 A term mentioned in the Attic stelai and defined by several lexicographers (Andrianou 2009, 100–101).
64 PM 1905, dated to the 1st century BCE.
65 Schmidt-Dounas (2017, 199, col. pl. 26).
66 Ath. *Deipn.* V. 196a–b and 197b.
67 Benaki Museum, inv. no. ΓΕ 43847, attributed to the Dinos Painter (420–410 BCE).
68 Richter (1966, figs 302 and 303: Louvre, Myrina 271 and 268 respectively).
69 PM 1561 from Samos (Tigani Museum) and PM 1568 from Smyrna, dated to the 2nd century BCE (Copenhagen, National Museum, inv. no. 2224).
70 For the institution, see Jameson (1994); Ekroth (2002, 169).
71 *CVA* Greece 14 (National Archaeological Museum 7), pl. 89.
72 *ARV²* 1187.36, 1686; Plovdiv Regional Museum of Archaeology, inv. no. 298 (1527).
73 *CVA* Italia 73 (Matera, Museo Nazionale di Matera 'Domenico Ridola'), pl. 79.2, 320–310 BCE. Such 'pearls' or 'beads' have been found around funerary *klinai* in Macedonia (Greece) and are now understood as embellishments of the bedding. For example, at Aineia a total of 103 gilded clay 'pearls' were excavated (Vokotopoulou 1990, 81, pls 50 a, b). Most of them have an elliptical form with a hole possibly for threading onto a string or thin ribbon, creating a string of beads, much like our modern rosaries. This string was apparently attached (sewn?) onto the bedding for decoration.
74 Kottaridi (2004).
75 See, for example, PM 1416 (Varna Museum, inv. no. II 1585), 1612 (Varna Museum, inv. no. II 3717), 1693 (Varna Museum, inv. no. II 3709), 1695 (Varna Museum, inv. no. II 121), 1701 (Varna Museum, inv. no. 1516), 1725 (Varna Museum, inv. no. II 1054).
76 See, for example, Machaira (2011, no. 82), dated to the mid-2nd century BCE.
77 Moeller (1976, 26 with references).
78 Richter (1966, fig. 649, pelike: British Museum, inv. no. F 311); PM 2020 funerary relief of unknown provenance (Vienna, Kunsthist. Museum, inv no. I 1085), dated to the late Imperial period.
79 Venit (2002, 48, fig. 33).
80 *ARV²* 1339.5=BAPD 217527.
81 Poll. *Onom*. 10.42.
82 Most recently, see Drougou (2018, esp. fig. 5) for the new reconstruction of its shape.
83 Drougou (2018).
84 Ath. *Deipn.* V 196.
85 Richter (1966, fig. 325).
86 Pritchett (1956, 253–254); Andrianou (2009, 97).
87 Richter (1966, fig. 311. Corinthian krater: Louvre, inv. no. E 629).
88 Richter (1966, fig. 111. Lucanian lekythos: Archaeological museum of Naples, inv. no. 81855).
89 Grossman (2013, no. 29: Agora S 3446 and 164: Agora I 5041).
90 *CVA* Deutschland 28 (München, Museum Antiker Kleinkunst 6), pl. 298, dated to 540 BC; *CVA* Deutschland 23 (Heidelberg 2), pl. 79.3, dated to 340 BC.
91 *CVA* USA 2 (Providence, Rhode Island Museum of Design), pl. 19 1b; *CVA* Great Britain 17 (London, British Museum 9), pl. 52.
92 PM 1763 (Samos, Tigani Museum, inv. no. 210).
93 Andrianou (2017, no. 57, 232–233: ΑΓΚ 30, Komotini Archaeological Museum).
94 Grossman (2013, no. 246, dated to the Julio-Claudian period: Agora, inv. no. S 1907).
95 PM 1090, possibly of East Greek origin, dated to the 3rd century BCE (?) (Erlangen, Kunstslg. der Universität, inv. no. I 521e).
96 PM 831 (Leiden, Rijksmuseum, inv. no. Pb 75) dated to the first half of the 2nd century BCE. The existence of the cord may suggest that the width of the weft had simply been decreased as weaving progressed, with warp threads cast off and later twisted into a closing cord. This design is noted on the toga of the late Etruscan life-size portrait known as the Arringatore, exhibited at the Archaeological Museum of Florence (Granger-Taylor 1982, 14).
97 Grossman (2013, nos 11: S 1609 and 14: S 2870).
98 PM 1452 from Kyzikos, dated to the 1st century BCE (Istanbul Archaeological Museum, inv no. 261).
99 As, for instance, the wicker chair on a relief from Philadelphia, Lydia (PM 701, Louvre, unknown inv. no.).
100 PM 919, dated to the 1st century BCE (Eressos, inv no. 133).
101 PM 1006, dated to the 3rd century BCE (?) (Çanakkale Museum).
102 Grossman (2013, no. 248, dated to the Julio-Claudian period: Agora, inv. no. S 1106).
103 Fraser (1977, fig. 92c, dated to the Late Hellenistic period); PM 867 from Smyrna, dated to the 2nd century BCE; PM 906 possibly from Smyrna, dated to the 2nd century BCE (British Museum, unknown inv. no.).
104 PM 1511 from Samos (Vathy Museum, inv. no. 217) and PM 1544 (Berlin, Pergamon Museum, inv. no. Sk. 831) from Erythraia, dated to the 2nd century BCE.
105 PM 1647 dated to the 1st century BCE (Istanbul, Archaeological Museum inv. no. 5380).
106 PM 1656 from Iznik (?), dated to the 1st century BCE (Iznik Museum).
107 Ath. *Deipn*. IV 147f.

108 Ath. *Deipn*.IV 130a (κατά μηχανάς σχασθέντων τῶν φραγμάτων).
109 Benassai (2001, 77–78, figs 98–99).
110 Richter (1966, fig. 608, *kylix*, Briseis Painter, British Museum, inv. no. E 76).
111 Steingräber (2006, 102 bottom, 113).
112 Steingräber (2006, 132 bottom left).
113 *CVA* France 18 (Paris, Musée du Louvre 11), pl. 13.1; *CVA* France 43 (Paris, Musée du Louvre 29), pl. 24 where ribbons are used under the head and over the chest of the deceased.
114 Steingräber (2006, 130).
115 Steingräber (2006, 186 bottom left).
116 Steingräber 2006, 140.
117 One notable example is the carved decoration on the limestone ceiling of the side chamber of the Treasury of Minyas at Orchomenos, dated to the LH IIIB period. Shaw and Chapin (2016, 119).
118 Ath. *Deipn*. V 196–197.
119 Tomlinson (1984, 263); Nowicka (1984).
120 Michaelides (2004, 90–91); Guimier-Sorbets and Michaelides (2009, 226–229); Andrianou (in press).
121 Venit (2002, 93).
122 Guimier-Sorbets (2001, 220–221); Ath. *Deipn.* II 48f.
123 Kotzias (1937, 866–895); Andrianou (2009, 93).
124 Filow (1934, 103–104). Apparently nothing is preserved from this cloth and Filow made a linear sketch from the imprints of the cloth on the ground.
125 Andronikos (1984, 178–179, figs. 143–144).
126 Miller (1993, 45–46 and n. 58).
127 Shaw and Chapin (2016, 106).
128 Ath. *Deipn*. V. 196–197c in connection with the *symposion* tent of Ptolemy II.
129 Miller (1993, 45, esp. note 53).
130 Compare, for example, Richter (1966, figs 286, amphora: Munich, Antikensammlungen, inv. no. 2303; 316, *kotyle*: Vienna, Kunsthistorisches Museum inv. no. IV 3710; 297, *kylix*: Munich, Antikensammlungen, inv. no. 2618).
131 Tsakirgis (1989). Equally, mosaics that act as doormats are evidenced in houses, Tsakirgis (1989, 408, n. 40).
132 This is the case of Philomela. According to the myth, Philomela revealed her rape and mutilation by Tereus through a vivid story-cloth, possibly a tapestry (Ov. *Met.* 6. 438–674).
133 Tuck (2006).

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Chapter 8

Ideology, gender and textile production: The iconography of women in the Iberian culture

Ricardo E. Basso Rial

Abstract

Images of the women related to the textile activities of the Iberian culture have been interpreted as rites of passage, as depictions of everyday activities or as status symbols of powerful women. This paper proposes that their meaning can only be interpreted with reference to the important process of the intensification of household textile production which takes place from the Middle Iberian Period (late 5th–4th century BC onwards). Archaeological evidence demonstrates that the textile tools in settlements and burials increases considerably at this time and classical sources emphasise the social significance of Iberian textile production and its importance in Mediterranean trade. Using these data and an analysis of these images, this paper proposes that their significance reaches beyond their symbolism to the ideology of an elite with important interests in textile products and their increased production.

Introduction

The communities that inhabited the eastern and southern regions of the Iberian Peninsula between the 6th and the 1st century BCE were known as Iberians (Fig. 8.1). Although not a particularly homogeneous society, these communities have come to be identified as the Iberian culture because they shared a significant number of social, economic, cultural and political traits. One of their most significant shared features is to be found in their iconographic representations, a cultural phenomenon that manifested itself in different subject matters and formats during a time when these groups sustained their political autonomy and hence the mechanisms of their ideological expression.

The role bestowed upon women in Iberian iconography is significant in this respect. This paper presents an interpretative hypothesis regarding those images of Iberian women that are specifically related to textile elements and activities. The Iberian culture, as is the case in other areas of the Mediterranean in antiquity, often depicts women who were working with textiles. This aspect has generally been linked with the symbology of feminine rites of passage: a simple reflection of their important role in everyday activities in the domestic domain or as status symbols of elite women, all linked to female identity in society. In order to interpret the intrinsic meaning and significance of these images it is necessary to investigate their functionality and possible social effects as well as to analyse their context. It is also important to consider their meaning and significance within a framework of the social, economic and political changes that took place from the Middle Iberian Period onwards (late 5th–early 4th century BCE onwards).[1]

Iberian iconography, women and textile production

One of the main reasons that the Iberian culture contrasts so dramatically with what went before lies in its capacity to develop a more complex iconography both in terms of the composition and media used and of the subjects represented. It is a phenomenon which can be defined as an absolute explosion of iconography represented in the sculptures,

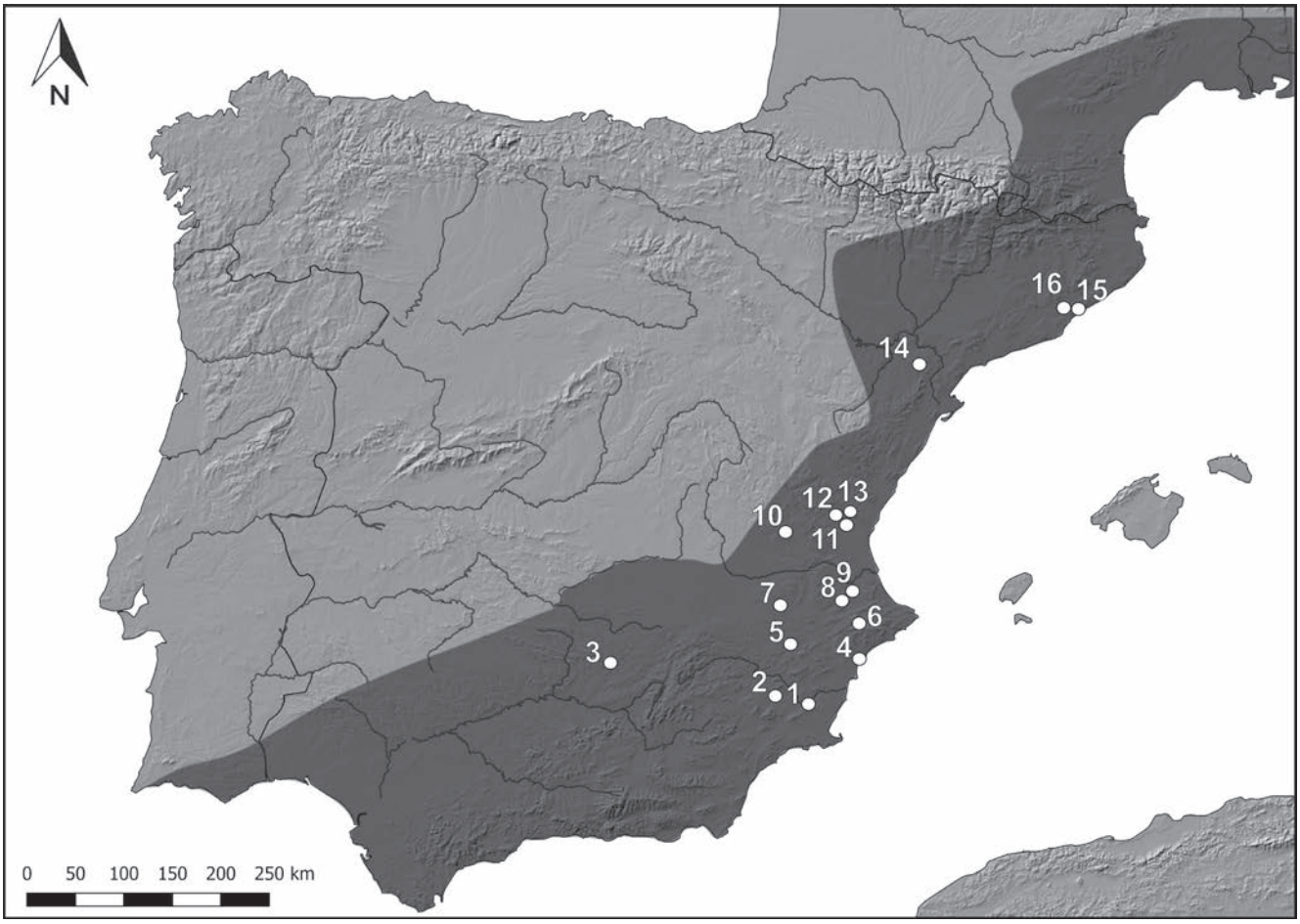

Fig. 8.1. Map. Iberian culture area with the sites mentioned in the text. 1. Cabecico del Tesoro; 2. El Cigarralejo; 3. Collado de los Jardines; 4. Necropolis of l'Albufereta; 5. Coimbra del Barranco Ancho; 6. La Serreta; 7. El Amarejo; 8. La Bastida de les Alcusses; 9. Saetabis; 10. Los Villares; 11. El Tossal de Sant Miquel; 12. Castellet de Bernabé; 13. Puntal dels Llops; 14. Coll del Moro; 15. Mas Boscà; 16. Puig Castellar. © R. Basso Rial.

reliefs, *ex-votos* and painted pottery that heralded unprecedented creativity on the Iberian Peninsula.[2]

Many different conclusions have been drawn from the research so far undertaken. The dominant interpretation proposes a dialectic relationship between not only the iconographic originality of the Iberian world and the imaginary of Mediterranean societies but also the political and religious processes experienced by those who created and consolidated city-state like projects.[3] From this perspective, such artistic manifestations can be understood to be a form of ideological expression of the groups that held the economic and political power which was used to consolidate and legitimate the existing order.[4] These prominent figures, both men and women, began to show themselves to the world accompanied by their power symbols in the form of statues, a practice which became particularly important from the late 5th century BCE onwards. However, in terms of analysing Iberian iconography with regard to politics and gender, it is the narrative and symbolic styles of painted pottery[5] that provide the clearest picture of the ideological strategies pursued by the dominant lineages. This pottery essentially developed in the central area of Iberia from the 3rd century BCE onwards; and these styles offer a richly nuanced depiction of socially distinguishing activities and elements.[6]

During this time, women held prominent positions and were frequently depicted on *ex-votos* (Fig. 8.2), sculptures and paintings in association with all the signs of aristocratic distinction, as seen with great realism in remarkable creations such as the so-called 'Dama de Elche' (Lady of Elche)[7] and the 'Dama de Baza' (Lady of Baza).[8] Women are depicted in images painted on pottery as key figures not only in ceremonial and ritual activities such as public celebrations, funeral corteges, wedding processions, playing instruments, *etc.* but also as carrying out a specific type of activity, that of textile making. An analysis of the different known images of Iberian women producing textiles follows below.

Fig. 8.2. Female ex-voto *from the sanctuary of La Serreta, 3rd–early 2nd century BCE. Museo Arqueológico Municipal de Alcoy, inv. no. 3024. Photo: Museo Arqueológico Municipal de Alcoy.*

Relief sculpture of l'Albufereta

In the Iberian necropolis of l'Albufereta, a relief sculpture with polychrome painted decoration associated with tomb F-100 has been documented (Fig. 8.3), dated between the 4th century and the last third of the 3rd century BCE.[9] It is a small plaquette, measuring 17 cm high by 12 cm wide and 5 cm thick, and is made from very fine-grained yellow sandstone, with two human figures – a woman and a man – sculpted on one of the sides in high relief.

Although missing since 1969, this relief is one of the most famous and discussed pieces of sculptural work in Iberian iconography because of the quality and complexity of its imagery. On the right side of the plaquette, there is a man standing, interpreted as a warrior because he is holding a spear in his right hand, which rests on the floor. On the left side, in front of him, a woman can be seen, slightly bending over, whose right hand is in contact with her lips and whose left hand is holding tools that have led to her being interpreted as a spinner.[10] The tools are a distaff bearing textile fibres and a spindle with a large amount of thread wound around it which is held with a biconical spindle whorl.[11] Accordingly, an interpretation of the gesture she is making with her right hand is that she is moistening her lips with saliva in order to spin.[12]

The sculpture is outstanding for two reasons: the quantity and quality of the details represented in both the man and the woman; and the symbolic complexity and dialectical

Fig. 8.3. Relief sculpture of l'Albufereta, 4th–3rd century BCE. Photo: Archivo Gráfico MARQ.

nature of the scene. In terms of the details, the quality of the realism achieved in the sculpture itself and the preservation of the pictorial imagery during the moment of its discovery endow the two figures with greater interpretative depth. The level of detailing in the hairstyle, clothing and the adornments worn is important and chosen specially to highlight the social status of the couple. The female figure's head is covered by a long veil from which can be seen emerging two long plaits that reach down to her waist; and she is wearing a long plain tunic covered by a large rectangular cape. The survival of some of the pigments used to paint the sculpture (Fig. 8.4) indicates that the woman's tunic was purple in colour and decorated with red stripes and a cobalt blue background and that the cape was a light apple green, with the selvage in red.[13] The female is also richly bejewelled with a wide diadem, multiple necklaces and small pin earrings, all of which retain traces of yellow pigmentation, which are possibly intended to represent golden adornments.

The funerary context in which this sculpture was documented, together with the type of scene depicted, have given rise to the widely held interpretation that it is a farewell scene or a rite of passage towards death.[14] Isabel Izquierdo,[15] however, has made an important observation by highlighting the 'rich interplay of opposites', contrasting the *feminine/masculine* aspects of each figure: the objects they are carrying, *thread and distaff* (spinning and weaving) and *spear* (weaponry); and the spaces they occupy: *interior* (domestic sphere) and *exterior* (war sphere).

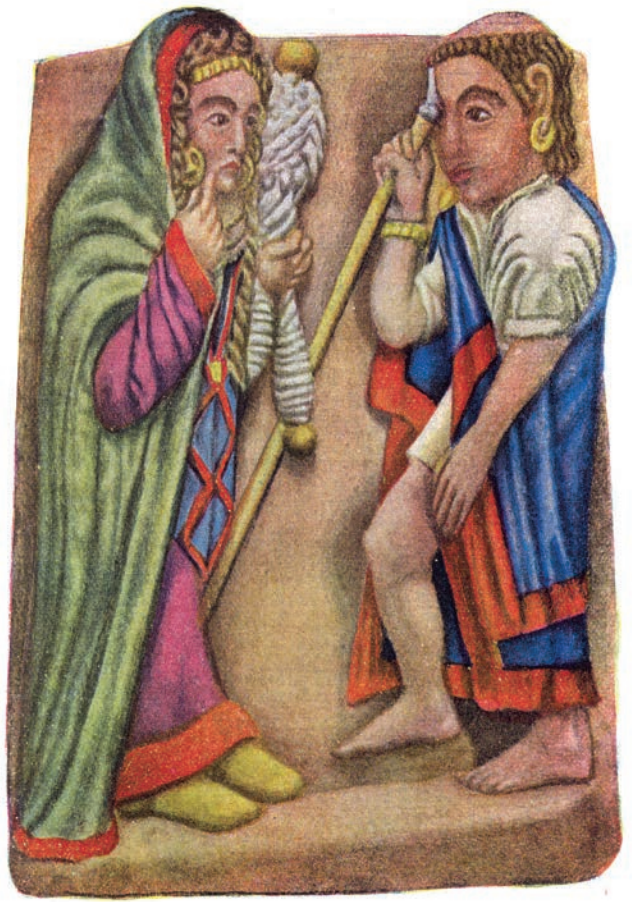

Fig. 8.4. Polychrome drawing of the Relief of l'Albufereta. After Figueras (1946, fig. 2).

Lady of the Loom of La Serreta

This is one of the most famous representations in painted Iberian iconography (Fig. 8.5). It was found in the important settlement of La Serreta[16] and is a fragment from a painted ceramic plaque with a series of perforations at the top. Accordingly, it has been interpreted as a small *pinakion* (a small identity plate), intended for public display.[17]

This is one of the most frequently discussed images among researchers due to the complexity of its composition. In it can be identified a female figure who is associated with spinning and weaving tools, and a possible decorated cloth. The female figure is located on the right side of the fragment although she would have been in the centre of the original scene. Her hands are occupied with what seem to be two different activities. Her left hand is holding a long object at one end. The fact that it bulges out in the middle and then opens out at the other end suggests that it might be a distaff with textile fibres. Underneath the hand of the female figure, a thin line runs from the end of this object, getting wider and then thinner again at the other end; this seems to be a schematic representation of a thread that is hanging down with a spindle whorl at the bottom. This scene is surprising because, with her right hand, the woman is turning a kind of crank shaft connected to a rectangular structure comprising vertical and horizontal lines, of which only the top left corner has survived. There is almost unanimous agreement among researchers that this image depicts

Fig. 8.5. Lady of the Loom of La Serreta, 3rd–early 2nd century BCE. Museo Arqueológico Municipal de Alcoy, inv. no. 2332. Photo: Museo Arqueológico Municipal de Alcoy.

a warp-weighted loom[18] and that the woman is turning the roller located on the warp beam around which the fabric is wound as it is woven.

Regardless of whether this is a human woman spinning and weaving,[19] or an idealistic model, or perhaps a goddess,[20] it is nonetheless true that this female figure is dressed in garments that link her directly with women of high social ranking. She is wearing a headdress and a long flowing tunic that reaches down to her feet and which, both on account of its perfect representation and the fact that the woman is shown standing, brings movement into the scene. However, it is impossible to rule out that the intention was to depict a woman in a seated position because, despite the absence of a chair or throne, the curvature of the legs from the waist down to the knees might suggest that.

On the left side of the piece, in contrast to the figurative representation, a series of overlapping strips have been depicted, delimited longitudinally by vertical and horizontal lines and comprising various motifs with repeated geometric and vegetable elements. Given the arrangement of these elements and the presence of similar motifs in the clothing of women found in other figures of La Serreta and El Tossal de Sant Miquel, it has been suggested that this might possibly be the representation of a decorated cloth.[21] If this is so, then this is an iconographic composition that aims to represent the entire process of textile production: spinning, weaving and the final product, the fabric itself.

Women spinning and weaving in El Tossal de Sant Miquel

Some of the most important pieces of Iberian decorative ceramics have been found at El Tossal de Sant Miquel, an important Iberian settlement which has been identified as the Iberian town of Edeta.[22] Among them, a fragment of decorated pottery stands out; it represents an intriguing scene of two women engaged in textile activities (Fig. 8.6). This fragment comes from the top half of a vessel used to store food; only 20% of its decorative structure remains, making it difficult to make a full iconographic interpretation.[23]

The scene of women spinning and weaving is part of the iconographic structure. It depicts two women shown in profile, facing one another, sitting on sumptuously decorated thrones. The woman on the left has both hands occupied in the spinning process. With one of them, at head height, she is holding a bulky shaft at the bottom, which seems to be representing a distaff loaded with fibres, whereas a little

Fig. 8.6. Iconographic scene of women spinning and weaving on the vase from El Tossal de Sant Miquel, 3rd–2nd century BCE. Museo de Prehistoria de Valencia, inv. no. 24072. Photo: Museo de Prehistoria de Valencia-SIP.

lower down the other hand seems to be twisting from the top a spindle around which a large quantity of thread has already been wound.

The other woman, sitting opposite her, is weaving. She is sitting on a throne with a figure of a bird on top of it.[24] One of her hands is occupied with what has been interpreted as a warp-weighted loom. The loom is represented with two horizontal beams, one at the top and the other below it, and with a series of vertical lines, running transversally to the beams, which represent the warp of the fabric, the threads of which culminate on the loom weights. Even though the piece is broken, it is possible to see that in her right hand she is holding a flower, a palmette or a hand fan.

The fact that both women have their hair arranged in a long plait and that, unlike the Lady of La Serreta (Fig. 8.5), they are not wearing a veil or a headpiece, suggests that these are two young women.[25] They are both dressed and adorned in similar fashion, as young ladies from a distinguished social class, wearing round-necked tunics with decorated sleeves and possibly adorned with chokers, bangles and bracelets. This association between youth and textile production, where fibre is transformed into thread and then into fabric, has been interpreted as a possible textile metaphor for a rite of initiation marking the transition from young girls to women.[26]

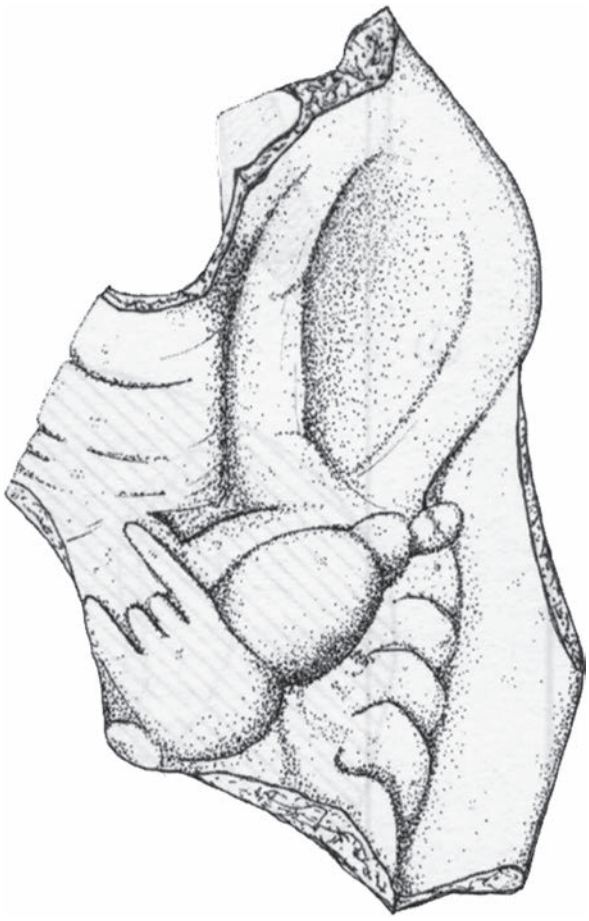

Fig. 8.7. Drawing of the terracotta fragment of the woman's hand with spindle from the necropolis of Coimbra del Barranco Ancho, 4th–3rd century BCE. Drawing: García (1997, fig. 165.17).

Although there are some similarities with the Lady of La Serreta, there are other important differences in addition to their age which merit closer examination. Most interestingly, perhaps, is that whereas the two women depicted in the image from Edeta are each carrying out one of the fundamental activities of textile production, *i.e.* spinning and weaving respectively, the image from La Serreta shows just one woman doing both actions. Nevertheless, both fragments, though narrated differently, transmit the same idea of the complete textile process.

Hand with spindle from the necropolis of Coimbra del Barranco Ancho

In the necropolis of Coimbra del Barranco Ancho, in the exterior space close to the tomb 'C', a small fragmented terracotta plaque has been documented (Fig. 8.7), dated by archaeologists to between the 4th and 3rd centuries BCE.[27] This piece shows the folds of a dress and the presence of a hand holding a rod-shaped object that widens out at the top end. Because of these details, the object has been identified as a spindle with a ritual significance[28] despite its small size and the fact that the decoration is highly schematic; and its image the depiction of a spinner woman's hand.[29] What can be seen is that the hand holding the tool is gesturing in a particular way, which has been interpreted as a symbol to ward off evil.[30]

Contextualising images: Written sources and archaeological evidence

In order to interpret the meaning of the images discussed, it is essential that they are tied in with what is known about the time and the type of space in which they were produced. There are two main sources to draw upon here: the testimony of classical authors, chiefly Roman, who observed and discussed from an external perspective the lifestyles and customs of Iberian communities; and, most importantly, the archaeological record which offers particularly plentiful and valuable information.

Classical sources and textile production

Classical sources shed considerable light on textile production and fabrics in relation to the Iberian communities. Their significance lies not so much in terms of the number of citations but rather in the importance they give to this production in Iberian society and its economy. The overwhelming focus of these references, which have been systematically catalogued by a number of researchers,[31] has been to describe the quality of textile products – especially wool, linen and dyed fabrics – and on the celebrations and events linked to women and textile production.

When evaluating the quality of Iberian fabrics, it is important to remember how much other societies, such as the Romans, also valued them. The most ancient reference to Iberian fabrics can be found in Ennius, according to whom the Iberian *sagum* (rectangular wool cloak often associated with soldiers) was already a popular garment in Rome (*Ann.* 508–509) by the end of the 3rd century BCE. Pliny the Elder, on the other hand, writing a few centuries later, highlighted the fact that the best linen cloth came from the Iberian town of *Saetabis* (*NH* 19.2). Furthermore, Strabo (3.2.6) and Martial (5.37.7; 12.65.6) emphasise the quality of various wools made in the Iberian Peninsula; and Polybius (3.14) and Livy (22.46) noted the singularity and excellence of Iberian purple-dyed tunics.

However, some classical quotations, which have been analysed in depth, are particularly striking in this context since they link female labour and textile production with festive celebrations. These provide an insight into not only how important this type of production would have been in social terms but also how integrated it was into everyday Iberian life. One of these comments is attributed to Ephorus, who notes:

> every year, the Iberian women put the fabrics they have woven on public display. Men, chosen by means of a vote, judge and honour preferably the fabric that has required the highest amount of work. They also have a certain waist measurement, and if any of their bellies cannot be covered by the fabric, this is taken to be deeply disgraceful. (*Fragmenta Historicorum Graecorum* 3.456)

Another comes from a repertoire of singularities compiled by E. Rohde,[32] according to which 'among the Iberians, it is their custom, at certain festivities, to honour with gifts the women who have woven the most and the most beautiful fabrics' (*Paradoxographus vaticanus* 25).

Archaeological record and textile production

Nevertheless, it is the archaeological record which offers the most complete insights into important changes that took place in relation to textile production from the Middle Iberian period onwards (late 5th century onwards).[33] The exponential increase in the tools of textile production testifies to the intensification of textile production. These tools have been documented in the many different contexts in which the Iberians carried out their social practices – not only in the settlements where they lived and worked but also in funerary contexts, in the grave goods found in tombs in necropolises, and in other religious settings such as the sanctuaries where offerings were made.

In practically all the Iberian necropolises excavated to date, spindle whorls were frequently found among the grave goods,[34] marking a different local ritual practice from that found during Late Prehistory. Right up until the 1980s, this archaeological evidence was used by researchers to determine whether the cremated bodies were female or not. However, the lack of scientific rigour of this methodology and its sexist assumptions became self-evident when it was found that spindle whorls were not only to be found in women's graves.[35] Linking such artefacts with women became more problematic when it was discovered that some tombs contained far more spindle whorls than would have been needed for one or two individuals to produce different qualities of thread. For example, tomb F-42, found in the necropolis of l'Albufereta, contained 19 spindle whorls;[36] tomb no. 200 of El Cigarralejo produced 56 spindle whorls;[37] and tomb no. 586 of Cabecico del Tesoro held a total of 58.[38]

The symbolic nature of spindle whorls in Iberian rituals can also be shown in the way they were offered to deities in sacred places.[39] The frequency with which such tools have been documented in sanctuaries such as Collado de los Jardines,[40] as votive deposits at El Amarejo[41] and in domestic spaces such as room 2 in Castellet de Bernabé[42] or room 1 in El Puntal de Llops where their purpose has linked to worship,[43] points to their strong association with ritual. This association emphasises the importance of spinning in the everyday life of the Iberian women, specifically among the lower classes.[44] It is evident that both the clothes and the textiles themselves had a prominent role to play as offerings. Even though they have not been preserved, hundreds of *fibulae* have been documented in sanctuaries such as Collado de los Jardines and La Algaida, among others, which seem to bear witness to this.[45]

However, the relevance of textile production from the Middle Iberian period onwards can be most directly assessed from the type of spaces where production areas were located. The majority of these correspond to domestic contexts. The most significant example is the site of Castellet de Bernabé, a fortified farm almost fully excavated.[46] This site reveals differences in wealth between dwellings and also the places where textile activities were carried out. The most distinguished dwelling in the settlement, based on its size (five rooms), location and wealth, is House E, the so-called 'large aristocratic house'.[47] Here, four concentrations of loom weights were documented in rooms 1, 2, 5 and 9 which have been interpreted as warp-weighted looms,[48] demonstrating the importance of textile production for the highest-ranking family in the settlement, an importance that has also been noted in distinguished houses in the settlements of Mas Boscà[49] and Puig Castellar.[50] However, evidence of looms, often associated with mills,[51] has also been found in numerous medium-sized and smaller dwellings, such as numbers 6, 7, 24, 35, 36, 37 and 40, which indicates that this textile activity was not carried out exclusively by the upper-status family. This can be seen more evidently in the case of spindle whorls, found in almost all the domestic spaces in the settlement – rooms 1, 2, 5, 6, 9, 22, 24, 28, 31, 33, 35, 36, 37, 38, 40 and 42 – and in large quantities, in open spaces and the main street.[52]

Similar distributions can be found in La Bastida de les Alcusses where evidence of looms has been found in different sized dwellings: in large houses between 80 and 120 m^2; in medium-sized houses of around 50 m^2; and in small houses of between 20 and 30 m^2. Spindle whorls also appear in large numbers, *i.e.* in concentrations of between 12 and 39 units.[53] Findings such as these can also be extrapolated to other important settlements such as Los Villares[54] or El Tossal de Sant Miquel.[55]

It is perhaps surprising that only one space has been found in the whole of the Iberian territory that specialised exclusively in textile production: the linen treatment and textile-making workshop in the settlement of Coll del Moro which operated until the second half of the 3rd century BCE.[56] This building had spaces for the preparation and soaking of linen fibres in waterproofed basins on the ground floor,[57] as well as a possible upper floor where the warp-weighted looms would have been located. Interestingly, among the painted pottery documented here, a fragment of a *kalathos* (basket used to hold wool fibre for spinning) was found, decorated with what has been interpreted as a loom (Fig. 8.8).[58] The fact that, to date, this place is still unique, since no other textile workshops have been identified, seems to indicate that Iberian textile production was organised fundamentally around the domestic space and household unit.

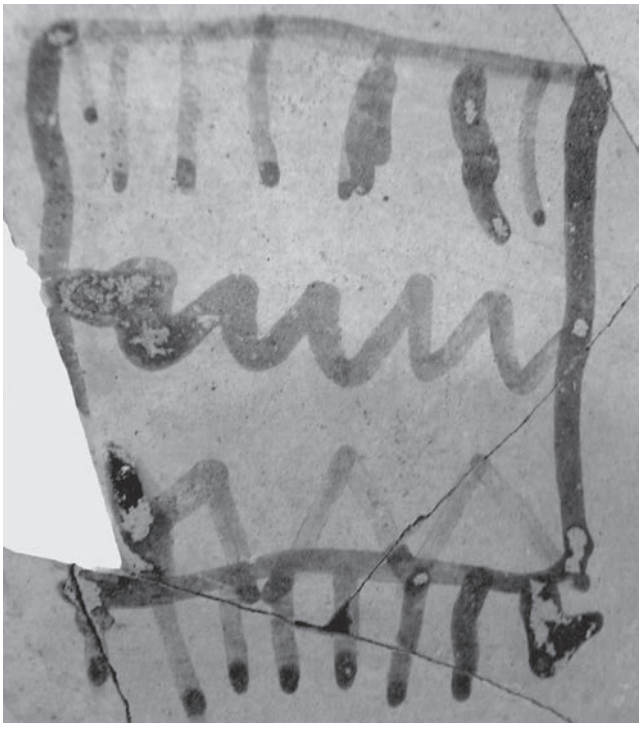

Fig. 8.8. Schematic representation of a loom from Coll del Moro, second half of the 3rd century BCE. After Rafel (2007, fig. 2).

Beyond the symbolic: Ideology, gender and textile production

The symbolic content of Iberian iconography whereby high-ranking women are represented with the attributes of textile production has been considered by numerous authors. As with other Mediterranean societies (such as the Greeks, Etruscans, Punics)[59] where similar images are also frequently found, the importance of fabric and textile tools in Iberian images has been associated with the symbology of gender, age groups, social status and rites of passage, as well as fate, memory and death.[60] However, to draw such conclusions from the imagery demands that textile iconography be analysed within its particular context. To do this requires an understanding of the complexity of iconography as an art form intended to have specific social effects, to produce an impact both on those who create and exhibit it and on who view it.[61] It is a form of material culture that not only presents and reinforces the dominant ideologies but has a layered meaning,[62] being able to unite, divide or position the people it touches.[63]

Because of this complexity of meaning, it is important firstly to evaluate the importance of textile production and textiles within the social context of the Iberians. As has already been shown, there is a presence of large quantities of textile tools such as loom weights and, especially, spindle whorls in practically all the domestic spaces of the Iberian settlements so far excavated in numbers far exceeding the needs of each domestic group. This, together with the absence of specialised production spaces such as workshops, strongly suggests that textile production was highly important in the everyday economy of all Iberian social groups.[64]

However, not all social groups are represented in Iberian iconography. In terms of the images analysed, it is only elite women, or idealised or divine women dressed aristocratically, that are represented. This raises questions about who was allowed to see the iconography and at whom was it aimed. The material formats or objects where textile scenes were depicted fall into two groups. In the first group, the iconography painted on ceramics such as the vessel of Edeta or the plaque of La Serreta were found in private rooms where access would surely have been restricted to elite groups. In the second, the iconography on reliefs or funeral stelae such as the relief of l'Albufereta or the plaque of Coimbra del Barranco Ancho were documented in exterior spaces and places with unrestricted access such as the necropolis. These two aspects of the same iconographic content suggest two different meanings. In the case of the art destined to be exhibited and observed by members of the same dominant social group, it indicates a consensus within the elite about the importance of textile production as an activity worthy of aristocratic women. By contrast, its display on the stelae or plaques located in the necropolis promotes an iconographic message intended to be seen by the general public.

It is important here to understand the significance of textile production from the point of view of the elite and to do so it is necessary to observe differences in the way in which men and women are represented in Iberian iconography. The relief sculpture of l'Albufereta (Fig. 8.3) offers the best opportunity to evaluate dialectically the binary conception held by the dominant groups with regard to the two genders. In this sculpture there are two constructed genders. The man, in this case a warrior with a spear in his hand, seems to represent the ultimate masculine values in portraying the main role assigned to aristocratic men. The woman as an Iberian 'lady', who, though dressed in clothes and jewels that are distinctive of her aristocratic social position, evokes, by means of the distaff and spindle in her hand, the work of all Iberian women and thereby personifies them all.

Something similar can also be seen in painted Iberian iconography with its signalled 'aristocratic' activities.[65] However, whereas in the painted images men are depicted carrying out activities that are exclusive to the aristocratic culture such as dancing, hunting, warring competitions and processions,[66] the elite women are also depicted spinning and weaving. In short, the women are shown carrying out tasks that were not only regarded as being equally 'virtuous' for their rank but that were also typical of Iberian women of all ranks. Herein lies the most significant contrast. The ideology of the dominant groups which puts the figure of the warrior and the rider in a central position (Fig. 8.9) does not seem to be about constructing the image of the Iberian man in general. Instead, it seems to be focused on highlighting those features which served to socially distinguish elite men: it was a means of legitimising an unequal social order. By contrast, the images of women promoted a series of characteristics that could be attributed to all Iberian women, regardless of their social position or status, thus reinforcing the association between women and the domestic productive domain and confirming their value and contribution to society.

This association has been readily linked to the overarching role of the Iberian woman as a guarantor of the *oikos* (the unit of the family, house and its possessions)[67] who performs an essential role in running and maintaining the home and in ensuring the reproduction of the household. These are all elements that would serve as a foundation of the female identity; they would be promoted through the examples of the imagery of high-ranking women.

Although this interpretation is likely to be correct, the meaning of this female imagery may be closely linked to a productive dimension that is intended at the same time to reinforce the social and economic importance of textile production not only for women and the Iberian society in general but also most importantly for the dominant lineages.[68] It appears, for women themselves, textile production was one of the most highly valued social activities. They dedicated much of their time to this activity over the course of their lives, which might explain its use as a basic component both of ritual practices and of the imagery related

Fig. 8.9. Iconographic representations showing warriors and riders. A. Warrior vase from El Tossal de Sant Miquel, 3rd–2nd century BCE. Museo de Prehistoria de Valencia, inv. no. 2683. Photo and drawing: Museo de Prehistoria de Valencia-SIP; B. Warrior vase from La Serreta, 3rd–beginning of 2nd century BCE. Museo Arqueológico Municipal de Alcoy, inv. no. 2147. Photo and drawing: Museo Arqueológico Municipal de Alcoy.

to the transition from girlhood to womanhood: the festivities, rites, myths and the like. The dignity bestowed by such associations would have allowed aristocratic women themselves to feel comfortable about being linked to these activities. This in turn might well explain why textile work is one of the few productive activities represented in the iconography and is shown to be on a par with other aristocratic themes which were used to legitimise social status. It is worth noting here that only the most skilled artisans could produce fabrics fine enough to identify and distinguish the elites.

The intensification of production, including textile production, that took place from the 4th century BCE onwards[69] could be a key factor here in explaining the role played by certain social groups during this period. Given that the Iberian economic structure articulated fundamentally around domestic production, the intensification of such activities must have involved an increase in production capacity. The need for the dominant lineages both to stimulate this intensification and to control it might have necessitated the development of an ideological strategy that would work to bind women tightly to the domestic sphere.

Examples of festivities and public exhibitions linked to the production of textiles by Iberian women can also be interpreted in this light. Both the quotation about the annual exhibition of garments at which a male jury honours 'the woman who has worked the most', and the one that narrates the giving of gifts to the 'women who have woven the most and the most beautiful fabrics', could be references not only to female labour, with a marked gender bias. It may also indicate the overwhelming demand for quality and, particularly, quantity of textile, an aspect proposed by certain authors as the possible *raison d'être* for many women.[70]

These conjectures point to the existence of a dominant ideology that sought to highlight the relationship between women and textiles as symbolising the association between women and the domestic world (Fig. 8.10). It may well be that the depiction of Iberian women accompanied by textile tools was the manifestation of a pre-existing gender identity, as seen in other Mediterranean societies. In this case, however, it was also an imagery that could be harnessed politically to reproduce and consolidate the role of women as domestic producers.

It is worth considering here the role played by the women of dominant lineage in overseeing and managing this textile production. The female figure itself emerges in Iberian iconography from the 4th century BCE onwards. [71] This leads to the belief that the elite women were consolidating their social position not only among Iberian women in general but also at the very heart of their society. From this perspective, this strengthening of elite women's position in society might be linked to their need to exercise greater control over a type of production which was at the same time both a subsistence production and of strategic importance to the elites. It was in their interests to intensify it[72] both to consolidate

Fig. 8.10. Detail of the scene with the spinner from El Tossal de Sant Miquel. Photo: Museo de Prehistoria de Valencia-SIP.

their dominant role within their communities and to control products with a high value of exchange.

Conclusions

The emergence of a recurring iconography related to textile production raises a number of questions. On the one hand, there is the social importance that elite women acquired in Iberian society through being represented in numerous images relating to textiles and textile production from the 4th century BCE onwards. On the other hand, the fact that textile production was the only productive activity depicted both in objects of public and private exhibition emphasises its social and economic significance from that point on.

A direct link can therefore be made between this social and economic process and the images of women associated with textile production. Archaeology has uncovered a great many indicators pointing to the intensification of textile household production in Iberian territories, at least from the 4th century BCE onwards. The evidence of textile tools in all areas of Iberian social life, and most significantly in the settlements, suggests that the production of thread and cloths had become a productive activity fundamental to their economy, perhaps thanks to the participation of Iberian textile products in the Mediterranean trade routes.[73] However, the absence of specialised places of production (other than the textile workshop in Coll del Moro)[74] with the sufficient scale and productive capacity to sustain such demand inevitably shifts the focus back onto household production.

It is important to emphasise here just how significant textile production had become to the dominant groups, groups who proudly displayed the female members of their class engaged in such activities. Textile production is the most frequently represented production activity seen in the iconography; its occurrence is on a par with other activities and practices that were distinctive and exclusive to the elite; and the value bestowed on this activity can be related to the benefits – economic, social and political – that this activity brought with it. Without doubt, textile production must have played a unique part in the accumulation of wealth among the Iberian elite, a fact reflected in the presence of so many spindle whorls in some of the wealthy tombs.[75]

Nevertheless, textile production was not an exclusive activity of the dominant groups; and the evidence for the existence of specialised workshops remains lacking from the archaeological record. If textile production did not expand beyond the sphere of household production at a time it was undergoing a process of intensification,[76] it can be argued that ideology must have had a key role to play in stimulating this process and ensuring that it would lead to the accumulation of wealth and power amongst the dominant lineages. Textile iconography, directly or indirectly, would have been an important part of that process.

Notes

1 Masvidal *et al.* (2000); Bonet *et al.* (2015).
2 Olmos (1999); González and Rueda (2010).
3 Aranegui *et al*. (1997); Olmos (1999); Grau (2006).
4 Grau (2014); Amorós (2019).
5 Aranegui (2012).
6 Grau (2014); Amorós (2019).
7 Olmos and Tortosa (1997).
8 Chapa and Izquierdo (2010).
9 Figueras (1946, 328); Verdú (2014, 1523).
10 Alfaro (1984, 75); Aranegui (1996, 96).
11 Verdú (2014, 1529).
12 Llobregat (1966).
13 Llobregat (1966, 44).
14 Aranegui (1996, 94).
15 Izquierdo (2001, 301).
16 Grau *et al.* (2017).
17 Aranegui (1996, 114); Izquierdo (2001, 301).
18 Alfaro (1984, 75); Izquierdo (2001, 301); Fuentes (2006, 59).
19 Alfaro (1984, 75); Maestro (1989, 259–261).
20 Olmos (1999); Izquierdo (2001, 302).
21 Izquierdo (2001, 298); Fuentes (2006, 61).
22 Bonet (1995).
23 Izquierdo and Pérez (2005, 87).
24 Izquierdo and Pérez (2005, 94).
25 Izquierdo and Pérez (2005, 95).
26 Izquierdo and Pérez (2005, 100).
27 García (1997).
28 García (1997, 275).
29 Izquierdo (2001, 308).
30 García (1997, 275).
31 Castro (1983–1984); Izquierdo (2001).
32 See Giannini 1965.
33 Masvidal *et al*. (2000); Gorgues (2009).
34 Prados (2011).
35 Rafel (2007).
36 Rubio (1986, 72).
37 Cuadrado (1987, 162).
38 García (1997, 189).
39 Vílchez (2015).
40 Vílchez (2015, 288).
41 Broncano (1989).
42 Guérin (2003).
43 Bonet and Mata (2002).
44 Grau and Rueda (2018, 65).
45 Moneo (2003).
46 Guérin (2003).
47 Guérin (2003, 314).
48 Guérin (1999; 2003).
49 Junyent and Baldellou (1972).
50 Masvidal *et al.* (2000, 113).
51 Guérin (1999).
52 Guérin (2003, 210).
53 Bonet and Vives-Ferrándiz (2011).
54 Pla (1980).
55 Bonet (1995).
56 Rafel *et al.* (1994).
57 Alonso and Juan (1994).
58 Rafel *et al*. (1994, 131).

59 Picard (1967); Rouveret and Pontrandolfo (1983); Cassimatis (1990); Gleba (2008); Harlow and Nosch (2014), among others.
60 Aranegui (1997); Izquierdo (2001); Izquierdo and Pérez (2005).
61 Dissanayake (1995); Gell (1998); DeMarrais and Robb (2013).
62 DeMarrais and Robb (2013).
63 Bourdieu 1984; DeMarrais (2011); Robb (2015).
64 Gorgues (2009).
65 Aranegui (1997); Olmos (1999); Grau (2014).
66 Grau (2014); Amorós (2019).
67 Aranegui (1997); Izquierdo (2001); Izquierdo and Pérez (2005); Rísquez (2016).
68 Gorgues (2009).
69 Masvidal *et al*. (2000).
70 Guérin (2005).
71 Aranegui (1994).
72 Masvidal *et al*. (2000).
73 Sanmartí (2000).
74 Rafel *et al*. (1994).
75 Rafel (2007); Rísquez and García (2007); Rísquez (2016).
76 Masvidal *et al.* (2000).

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Chapter 9

All that glitters is gold: Golden textiles in the ancient Mediterranean

Cecilie Brøns

Abstract

Golden textiles[1] were significant across the ancient Mediterranean from the Archaic period (or perhaps even earlier) to Late Antiquity, i.e. *from the 5th century BCE to the 5th century CE. By comparing and contrasting three primary sources – iconography, archaeological material and written sources (both literary and epigraphic) – this paper shows that the use of such extravagant textiles was far more extensive than previously assumed. Furthermore, as this paper will demonstrate, the images, particularly those found in iconography, offer compelling information about how these garments actually looked and were worn (and by whom), leading to a significantly better understanding of ancient garments and their versatility. This enhances the interpretation of both the archaeological finds and the descriptions found in the written sources.*

Introduction

Gold is a precious metal. Its chemical symbol, Au, is derived from the Latin *aurum*, meaning gold. It has been used since antiquity in the production of jewellery, coinage, figurines and vessels as well as for the decoration of buildings, monuments, furniture and statues. It was also used in the ancient Mediterranean for textiles, either woven into garments or for their decoration. Though not uncommon, the practice of using expensive gold thread to embellish textiles was reserved for textiles belonging to people from the highest social strata. The manufacture of gold thread began very early: there is mention of golden textiles in the Old Testament,[2] though they appear to have become especially popular during and after the collapse of the Roman Empire in the 5th century CE. Although evidence for these textiles exists in antiquity, there is still little known about them or how they looked. This paper therefore aims for the first time to develop new insights into their use from the 5th century BCE to the 5th century CE. It does so by investigating and collating three primary sources of evidence: iconography; the textiles found in archaeological contexts; and written sources both literary and epigraphic. These three sources offer different insights into the use of gold in textiles. The archaeological record sheds important light on the different techniques used in textile production; the written evidence, particularly from the Roman period, confirms their existence and demonstrates that they were primarily worn by Roman emperors and empresses. However, neither archaeology nor the written word can provide specific information about their use and appearance, and it is here that ancient iconography comes into its own by providing insights unavailable from other sources.

Iconography is, in fact, an overlooked but invaluable source of evidence in the study not only of golden textiles but of coloured textiles in general. Indeed, a closer examination of the polychrome decoration of sculptures, figurines and reliefs can provide unique insights into both the use of gold in textiles and their various colours and decoration. Thus, the many depictions of garments in various media, such as reliefs, figurines, sculpture, wall-paintings and mosaics, sometimes include depictions of what ought to be interpreted as golden textiles. Although the original colours of many of these depictions no longer survive,

new advances in polychromy research can provide insights into their original colours and decoration.

Through combining these three sources of evidence, iconography, the textiles from archaeological discoveries and written sources, this paper will argue that golden textiles were not only present in antiquity from around 500 BCE–500 CE, but also formed a more significant aspect of the wardrobe of high-status men and women than hitherto thought. Moreover, this paper reveals how the images found in iconography offer compelling evidence about the way these garments actually looked and were worn, and by whom. This leads to a significantly better understanding of ancient garments and their versatility. Likewise, it will help in the interpretation of both the archaeological finds and the descriptions found in the written sources.

Golden garments in art: Ancient polychromy[3]

Ancient iconography is the only source that can provide solid evidence as to the original appearance of these garments. Iconographic sources are of course not without their attendant problems and pitfalls, including the question whether these images illustrate either 'real' or 'imaginary' dress. How far, for example, do the images of clothed men and women from ancient Greece and Rome truly represent the clothes that men and women wore in real life? Do they instead depict an idealised version of Greco-Roman dress? Furthermore, although plenty of garments exist in both wall-paintings and vase paintings, these depictions seldom reveal whether the decoration shows the use of true gold or 'simply' a woven or embroidered decoration in fibres dyed to look like gold. A famous example of this is the wall-painting in the François tomb at Vulci, where Vel Saties is displayed in a mantle thought to be a *toga picta* (a ceremonial toga usually worn by triumphant generals after victorious campaigns) with figured decoration. However, although written sources indicate that the *toga picta* was embroidered with gold, it is impossible to tell from the depiction in question whether this was indeed the case.[4]

However, depictions in other media can help to establish the true appearance of golden textiles. Thus, ancient art works, such as marble sculptures, can provide important information about the original appearance of ancient garments even though most marble sculptures exhibited in museum collections around the globe appear to be entirely white. These sculptures were, however, originally painted with a bright arrangement of colours to make them appear as life-like as possible. Regrettably, most surviving pieces have lost their colours primarily because of poor preservation conditions, exposure to light and radiation, the fragility of the paint and, not least, the cleaning methods applied before or after the artefacts entered the museum (or private) collection.[5] Nevertheless, although traces of the original polychromy are typically microscopic in size and very fragile, more advanced analytical methods, particularly in the natural sciences, can add new knowledge, for example by making it possible to identify pigments, binding agents, painting techniques and provenance. Modern polychromy research has thus become a highly interdisciplinary endeavour, involving archaeologists, conservators, chemists, physicists, geo-chemists and geologists, among others.

An operating microscope[6] is a useful tool for identifying the use of even minuscule remains of gold. Microscopy can be supplemented with X-ray fluorescence (XRF), an extremely important analytical method in the research of colour. This can be carried out with a handheld apparatus, is non-invasive and does not damage the objects examined. XRF is also used to identify elements and is particularly suited to the analysis of inorganic pigments as well as metals, including gold.

'Fake gold'

Golden textiles were not only made using real gold but also with 'fake' gold pigment. Ancient painters, for example, employed the natural pigment orpiment, a canary-yellow sulphide of arsenic (As_2S_3) containing 60% arsenic, which produced a splendid and brilliant shade of yellow.[7] The name 'orpiment' is derived from the Latin *auripigmentum*, literally 'gold pigment' (from *aurum* ('gold') and *pigmentum* ('pigment'), confirming its use as a substitute for gold in ancient polychromy. It is mentioned by ancient authors such as Pliny who records the following:

> There is also one other method of procuring gold; by making it from orpiment, a mineral dug from the surface of the earth in Syria and much used by painters. It is just the colour of gold, but brittle, like mirror-stone, in fact. This substance greatly excited the hopes of the Emperor Caius, a prince who was most greedy for gold. He accordingly had a large quantity of it melted, and really did obtain some excellent gold; but then the proportion was so extremely small that he found himself a loser thereby. Such was the result of an experiment prompted solely by avarice: and this too, although the price of the orpiment itself was no more than four denarii per pound. Since his time, the experiment has never been repeated.[8]

Orpiment had been used since ancient times as a pigment in painting and for polychrome sculpture, even though it was not permanent and was toxic. There is also evidence for its use in polychromy from Middle and New Kingdom Egypt (16th–11th centuries BCE) where it was found in the painted decoration of wooden coffins and stelae.[9] Later examples include a marble *pyxis*[10] in the National Archaeological Museum of Athens. The *pyxis* is dated to the second half of the 5th century BCE and bears a battle scene with two polychrome chariots and

charioteers fighting against two armed warriors. Orpiment was identified in its decoration, together with hematite (red) and goethite (yellow), cinnabar and lapis lazuli.[11] So far, however, the use of orpiment to represent garments in ancient polychromy has not been identified, a situation which may quickly change as more ancient polychrome artefacts are examined.

Ancient gilding techniques

Gilding with gold leaf or foil was used on artefacts made out of different materials, including stone, terracotta, stucco and bronze.[12] The earliest form of gilding was fire-gilding, whereby a layer of gold was applied to the surface of a less rare metal, a technique that goes back to the 3rd millennium BCE.[13] However, the most common method of gilding during antiquity was the *bolus* technique (also known as 'bole' technique), whereby the gold leaf was usually applied onto a preparatory layer of very refined fine clayish earth pigment (*bolus*) in different colours (often red, orange or yellow),[14] using an adhesive such as an animal or vegetable glue. Since these organic glues have degraded with time, the gilding has often disappeared, leaving only tiny remains on surfaces, particularly in folds and crevices.[15] The red or yellow preparatory layers are now often the only surviving evidence (if any) of former gilding.[16] Gilding is mentioned by Pliny (*NH* 33.20) who described how gilding was applied to marble with egg white, and to wood with a glutinous composition known as *leucophoron*.

The grave monument of Phrasikleia

The grave statue of Phrasikleia, dated to 520 BCE, provides an example of the use of gilding in the iconography of ancient textiles.[17] This statue shows a standing young woman (a *kore*[18]) dressed in a richly ornamented garment; on the skin and garment are numerous traces of polychromy. Analysis of this polychromy has revealed the use of red and yellow ochres, lead white, brown madder, vine black and orpiment.[19] Red and yellow ochre and orpiment were used for her dress, while the rosettes and shining yellow swastikas scattered over the garment were painted with orpiment and yellow ochre. Moreover, gold leaf (and lead tin foil) was applied to her garment and jewellery, as well as possibly her belt.[20] The gold leaf and the use of orpiment to create a 'fake gold' was meant to imitate gold ornaments sewn onto the garment. Parallels for such textile ornaments, often in the shape of roundels decorated with rosettes, are found in the archaeological record, primarily in burial contexts such as in the tomb of the 'Lady of Archontiko' at Pella (*c*. 540–530 BCE). Here three gold rosettes and four plaques shaped like double triangles were recovered on the upper part of the torso, three rosettes on the abdomen and a silver plaque and two gold plaques with vegetal decoration and two small gold rosettes on the thighs. Finally, two small gold rosettes were found near her feet, probably originally intended to adorn her shoes.[21] Gold rosettes and decorated plaques were also found in contexts that date from the Hellenistic Period.[22]

Tanagra figurines

The Greek Tanagra terracotta figurines provide rich evidence about the colours of ancient dress because their polychromy is often relatively well preserved and sometimes includes gilding.

A terracotta figurine discovered in the collections of the Ny Carlsberg Glyptotek provides a particularly interesting example of the use of gilding on clothing. This figurine of a standing woman, dated to the 3rd century BCE, is unfortunately of unknown provenance but clearly belongs to the well-known group of figurines from Tanagra (Fig. 9.1).[23] It was previously suspected of being a forgery[24] but recent analysis of its polychromy has identified the use of ancient pigments, including Egyptian blue, and painting techniques, which has ruled out the possibility of a modern manufacture.[25]

The figurine is shown wearing a *chiton* (a form of tunic made from two large rectangles sewn up the sides) of various colours. The polychromy is degraded and it is therefore difficult to interpret the decoration. Microscopic examination reveals the use of pink, purple and blue colours superimposed upon each other. In addition, the *chiton* has white horizontal decoration (in stripes?) in a rectangular area on its front. Lastly, gilding is used for a horizontal gold border at the lower edge of the *chiton* (Fig. 9.2.a) and perhaps also in other scattered traces of what may originally have been vertical stripes or scattered decoration. On top of the *chiton*, the figurine wears a *himation*[26] (a mantle or wrap) with a broad purple border and a narrower gilded border near the garment's edge (Fig. 9.2.b). The colour of the remaining part of the *himation* cannot be determined without further analysis.

This figurine illustrates the rich and varied ways that gold might be used for textiles: the borders of *himatia* and *chitones*, as well as further decoration (in this case, of the *chiton*) which might represent gold weaving or embroidery. Furthermore, this example is a reminder that figurines, which at first glance appear to be 'simply' painted, could also include gilding, which is sometimes only preserved in the minutest of traces.

Garments embellished with gold have been recovered on other Tanagra figurines of standing women. The most significant example is the so-called 'Lady in Blue Group'. This group consists of four figurines recovered from a tomb near Tanagra and dated to *c.* 330–300 BCE. After their discovery, they were divided between the Louvre,[27] the British Museum,[28] Staatliche Museen Berlin[29] and

Fig. 9.1. Tanagra figurine. Ny Carlsberg Glyptotek, inv. no. IN 895. Photo: Ole Haupt.

Fig. 9.2. A. Microscope image showing the horizontal gold border at the lower edge of the chiton. *Magnification: 10X. Photo: Signe Buccarella Hedegaard.*

Fig. 9.2. B. Microscope image showing a broad purple border and a narrower gilded border near edge of the himation*. Magnification: 10X. Photo: Signe Buccarella Hedegaard.*

the Hermitage.[30] The figurines all wear similar garments in similar colours. Those in the Louvre and in Berlin wear a blue *chiton* underneath a *himation* with a broad gilded border (Fig. 9.3.a–b).[31] The polychromy of the Hermitage figurine differs in terms of the gilding which covers a large part of the *himation* instead of being used to emphasise the border. Thus the figurine is represented in a blue *chiton* with a white rectangle and a gilded *himation* with a blue border. Except for the figurine in the British Museum, all the ones in this group are embellished with a considerable amount of gilding in contrast to the other Tanagra figurines where the gilding (if deemed to have been present) was often limited to the figurine's accessories.[32]

Examinations of Tanagra figurines in the Louvre, including the 'Lady in Blue', have shown that the gilding was often carried out with the 'bolus' (bole) technique, described above.[33] In the case of the 'Lady in Blue', this was supplemented by the additional refinement of burnishing. On the wide gilded band decorating the *himation*, the gold has an extraordinary glow to it, a finish obviously achieved by polishing with a hard stone. The gold leaf has been applied to a ground of fine-grained yellow ochre.[34] In all the Tanagra figurines, the gilding method used was gold on bolus, the gold leaf being made from fine gold (99.9%) which was first applied onto a thin layer of yellow ochre containing goethite before being burnished with a tool.[35] In no instance was there any trace of orpiment on the figurines studied.[36]

These examples illustrate the varied ways in which gold could be used for ancient textiles: primarily for borders of *himatia* and *chitones* but also for the main part of *himatia*, as well as for the additional decoration of *chitones*. It seems that precious materials such as gold leaf could also be used on relatively cheap objects such as terracottas.

Greco-Roman marble sculpture

Greco-Roman marble sculpture provides further important information about the iconographic record of gilded garments even though gilding on Roman marble statuary has generally been viewed as a decorative embellishment of limited value.[37] The following section shows this not to be the case.[38] As with the terracotta figurines, interpreting the use of gold in iconography can be problematic, most importantly because gilding is used in ways that do not reflect reality such as in portraying highlights in hair, accessories and even skin, as well as in representing textiles. Nevertheless, other

Fig. 9.3. A. Tanagra figurine, dressed in a blue chiton *underneath a* himation *with a broad gilded border, 330–300 BCE. Antikensammlung, Staatliche Museen Berlin, Preussischer Kulturbesitz. inv. no. TC 7674. Photo: Johannes Laurentius.*

Fig. 9.3. B. Tanagra figurine, dressed in blue chiton *with a white rectangle and a gilded* himation *with a blue border. 330–300 BCE. The State Hermitage Museum, St Petersburg, inv. no. GR-5249 (G-435). © The State Hermitage Museum. Photo: Yuri Molodkovets.*

examples exist where gilding has clearly been used for the embellishment of sculpted garments, thus leaving no doubt that it represents golden textiles.

A somewhat surprising example of this practice is the seated statue of the goddess Kybele in the Ny Carlsberg Glyptotek (Fig. 9.4).[39] This statue was recovered in a sanctuary at Formiae, Italy and has been dated to *c*. 60 BCE. It was recently examined thoroughly and its traces of polychromy were extensively analysed.[40] Besides a wealth of polychromy in pinks, purples and blues on her garments, the analyses revealed minute traces of gilding on the border and tassels of her mantle (Fig. 9.5). It has now been established that the statue was originally made wearing a heavily decorated costume with gilded ornamentation.

Another Roman example is a colossal statue of a naked male from the Hadrianic Baths at Aphrodisias who probably represents the hero Achilles. The statue is shown wearing a massive hanging *chlamys* (a type of ancient Greek cloak) which preserves faint, but extensive, vestiges of the red pigment cinnabar. Furthermore, a fragmentary white calcium carbonate ground on the garment's border,

Fig. 9.4. Marble statue of the goddess Kybele, c. *60 BCE. Ny Carlsberg Glyptotek, inv. no. IN 480. Photo: Ole Haupt.*

topped with yellow and red ochre, was presumed to have been gilded.[41]

There are also several examples of gilding on Delian sculptures, most likely due to the large number of sculptures and figurines examined from this particular site.[42] The bole technique is once again encountered on gilding used on the Delian marble and terracotta artefacts. This technique involves sticking very thin gold leaf onto a coloured ground made of ochre which on Delos is usually a fine yellow ochre. Beneath this preparatory layer, a thin foundation layer of fine-grained white compound has been applied onto the marble substrate.[43]

A further example of the use of polychromy and gilding for replicating garments on a marble statue is the so-called 'Small Herculaneum Woman', dated to the 2nd century BCE (Fig. 9.6).[44] The polychromy of the sculpted garments in this example is exceptionally well preserved, showing rich ornamentation: the *chiton* has two parallel dark blue bands along the hem and two vertical bands with wavy edges on the left side of the garment. The *himation* is decorated with a dark blue border with radiating lines. In addition, the edge of the short side of the *himation* is bordered by a golden band on top of a violet layer (Fig. 9.7).[45] Another Delian example is a statue of Apollo excavated at the House of the Masks.[46] The *chlamys* worn by the statue was embellished with a gilded border on top of a layer of brown ochre.[47]

A final Delian example is a headless female marble statuette, dated to around the end of the 2nd or the beginning of the 1st century BCE and recovered from the House of the Masks on Delos.[48] The entire garments of this piece, and not just the gilded border, were originally gilded. The statue has retained minute traces of shiny fragments of the gold leaf on top of a ground of yellow ochre. The gold leaf is made of purified gold (*c*. 96%) and is *c.* 4 to 5 microns thick.[49]

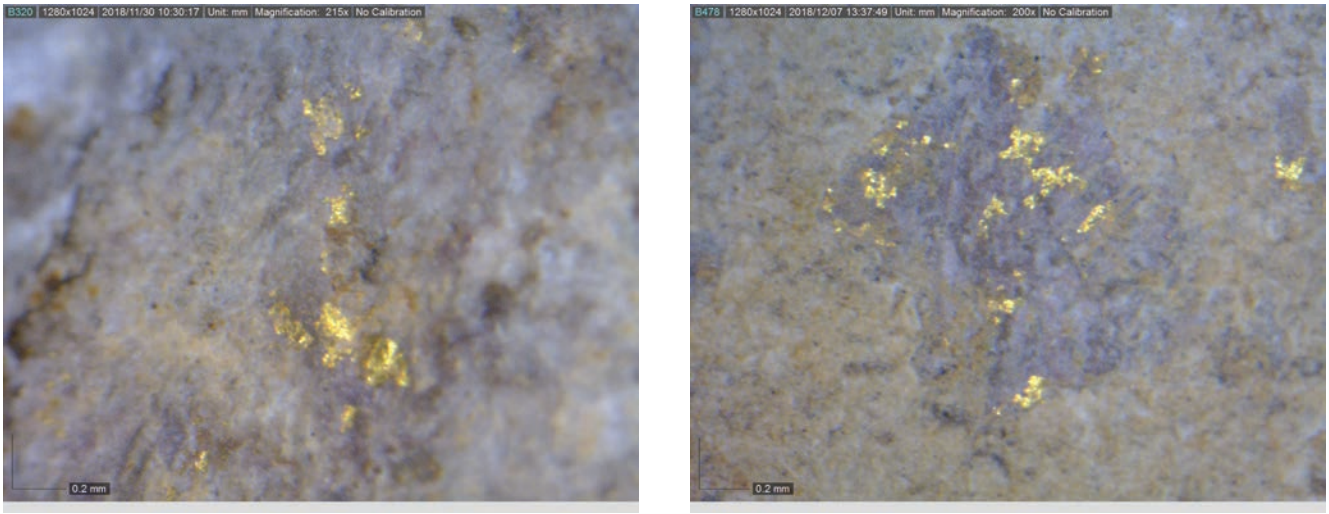

Fig. 9.5. A–B. Microscope images showing the use of gold leaf for the tassel of Kybele's mantle. Magnification: 215X. Photo: Signe Buccarella Hedegaard.

Fig. 9.6. Marble statue of the so-called 'Small Herculaneum Woman', 2nd century BCE. National Archaeological Museum of Athens, inv. no. 1827. Photo: Clarissa Blume-Jung.

Furthermore, metal attachments, either in gold, silver or bronze, were used to add dress and accessory details. These have usually now disappeared, but drill holes for their attachment provide evidence of their original existence. There are plenty of examples of sculptures with such drill holes from antiquity.[50] One is the marble sculpture of a running Niobid from the Gardens of Sallust, dated to *c.* 440–30 BCE.[51] The sculpture has drill holes in the hair, possibly for the attachment of a hairband (or extra curls), as well as holes for the attachment of a belt – perhaps in gold.

Besides testifying to the ancient skill in painting and gilding marble artefacts, this survey illustrates the portrayal of golden textiles for male as well as female sculptures, primarily in the form of gilded borders but also for entirely gilded mantles. Although factors such as weathering have unfortunately often reduced the gilding to micro-particles which are hardly detectable, even at high magnification, careful analyses of the artefacts and knowledge of ancient polychromy can reveal the original gilding. It is more than likely that future investigations will reveal many more representations of golden garments in the extant record of ancient marble statuary.

Mosaics

A final art form which should be mentioned in connection with the gilding tradition is mosaic. Mosaics provide a rich source of knowledge about ancient dress. Although it is impossible to tell from most mosaics whether garments are ornamented with gold, there are some exceptions. One is the mosaics of the Emperor Justinian and Empress Theodora at the Church of San Vitale in Ravenna, Italy (*c.* 547 CE), which include tesserae of gold. One of these mosaics shows Empress Theodora draped in a royal purple *chlamys* over an embroidered gown (Fig. 9.8). The bottom edge of her *chlamys* features a tapestry-woven depiction of what are probably the three magi bearing gifts. This decoration

Fig. 9.7. A–C. Close-ups of the edge of the short side of the himation*, which is bordered by a golden band on top of a violet layer. Photos: Clarissa Blume-Jung.*

Fig. 9.8. Mosaic of the Emperor Justinian and Empress Theodora at the Church of San Vitale in Ravenna, Italy, c. *547 CE. Photo: Wikimedia Commons (CC BY-SA 4.0).*

almost certainly represents an actual tapestry woven with gold thread.

Archaeological evidence

To what extent, then, are the iconographic representations of golden textiles supported by the archaeological record? Fragments of gold textiles, similar to those depicted in iconography, have been recovered from all over the Mediterranean littoral, often in the form of tiny fragments of gold thread. Although at first glance the archaeological material might seem sparse, a survey published in 2008 by Margarita Gleba showed that golden textiles have been recovered in a wide range of countries, including Spain, France, Italy, Greece, Turkey, Syria, Lebanon, Egypt, Ukraine and southern Russia.[52] The earliest finds so far from Greece date to the Classical period, while in Italy some fragments of gold thread and textiles date back to around the 7th century BCE.[53] Most of these finds are primarily – if not exclusively – from burials,[54] which may create a certain bias in that such garments may not necessarily represent the type of garments worn in real life.

The majority of these archaeological finds consist of gold threads which provide little information about the types of garments they belonged to or what they looked like. Nevertheless, they can provide insights into the different ways that gold could be used with textiles.[55] The archaeological evidence thus suggests that gold could be: woven alone; interwoven with other material (for example simply woven into or incorporated within the tapestry); or used for embroidery and other types of applied decoration.[56] It could also be used by itself to create hairnets using sprang technique (similar to plaiting) or to make cords, fillets or fringes.[57]

There are several examples of the first type of woven golden textiles in the archaeological record. Examples of golden textiles, woven without other types of material, include the minuscule fragments that were found in a glass urn containing burnt bones recovered in a grave in southern Italy. The urn belongs to a type known to have been popular from the middle of the 1st century CE to the middle of the 2nd century CE, which gives an approximate date for the textile. The fragments are woven. Each thread is *c.* 2 mm wide and 17–26 mm long and wound Z-wise around a fibrous core which has now disintegrated. The weave has *c.* 12–15 threads per mm (Fig. 9.9).[58] Other examples, not included in Gleba's article, are the fragments of gold textiles recovered in a sarcophagus from the 2nd century CE at Paphos, Cyprus. These fragments consist of a very fine flat ribbon of gold twisted around a

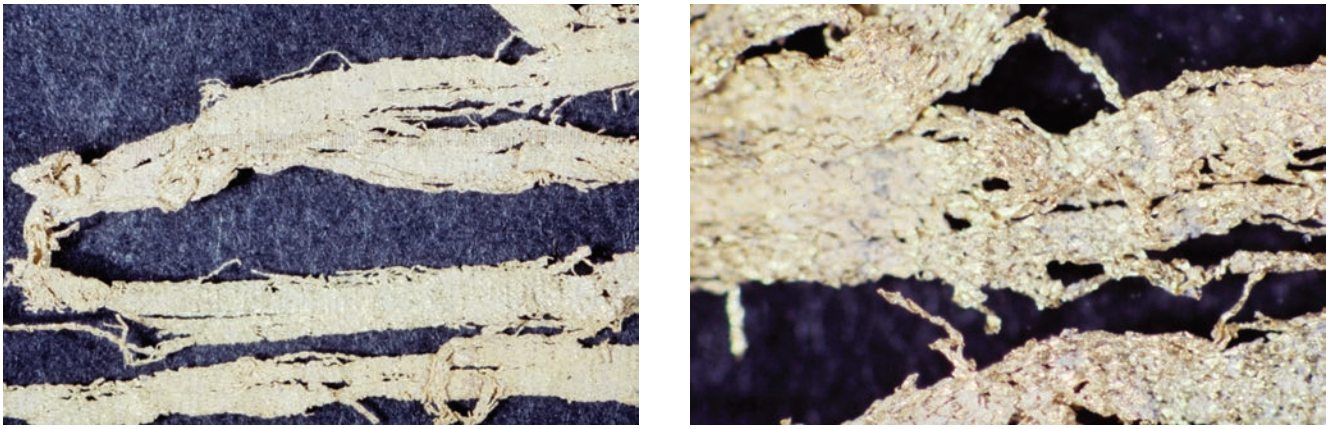

Fig. 9.9. A–B. Minuscule fragments of woven gold textiles. Recovered in a Roman glass urn together with the cremated remains of the deceased. Southern Italy. Dating to the period from the middle of the 1st century CE to the middle of the 2nd century CE. National Museum of Denmark, inv. no. 848.

core thread of purple/reddish silk. Up to ten small sections of woven golden fabric were found still intact, each of which was no more than 15 mm × 10 mm. The threads themselves are tiny, no more than 1 mm long.[59]

A further hitherto unpublished example is a group of 56 tiny woven gold textile and cord fragments, preserved in the collections of the J. Paul Getty Museum. Most of these fragmented remains consist of small sections of primarily weft-faced tabby[60] textile that is fashioned from tiny strip-twisted gold wires (approximately 0.10 mm in diameter). The sturdiest mesh samples (1.4 cm wide) retain selvages on both sides (some with folds and seams). An analysis of its composition has allowed certain fragments to be paired one to another end-to-end to make sections of a fillet, or *vitta*, originally measuring nearly a metre in length.[61] There is no evidence of a fibre core. This is significant, since the gold threads used for such textiles (whether exclusively in gold or interwoven with other material) were usually either made by twisting gold wire or gold strips around a fibre core (silk, wool, vegetal fibre or animal gut),[62] or by using so-called *lamellae* made from hammered gold foil cut into fine strips.[63]

Many of the preserved gold-woven textiles appear to have been ribbons, fillets, applied borders and the like, which is perhaps not surprising due to their cost, rigidity and heaviness which would have made them a difficult material to use for entire garments. Further examples of such pieces include a large fragment of a ribbon woven with gold thread, recovered in a barrel vault (number 5) of the ancient port of Roman Herculaneum.[64] Similarly, strips of golden weft have been found in burials at Taranto which have been dated to the 4th to 1st centuries BCE. Different types of golden textiles, such as ribbons, cords and hairnets, have also been recovered from burials in Rome and its surrounding areas.[65]

According to Gleba, the second category, that of gold woven into fabric, was more common. Rather than being woven alone, gold was frequently interwoven with other material, primarily purple wool and silk, a practice that became particularly prevalent during the Hellenistic period.[66] The most magnificent example of such a textile of gold interwoven with yarn comes from the so-called Tomb of Philip II in Vergina Greece, dated to the 4th century BCE. In a gold *larnax* (a small closed coffin or urn), two rectangular pieces of textile woven in gold and purple tapestry have been recovered together with the cremated remains of a woman. Unfortunately, the warp threads have disintegrated, making it impossible to determine the structure.[67] A further example is the group of textile fragments recovered inside a sarcophagus in the eastern cemetery of Thessaloniki (Greece). The burial contained the remains of a woman and has been dated to the 4th century CE.[68] This find consists of six pieces of tapestry-woven textile with plant motifs and with threads consisting of gold strips wrapped around a core of purple silk thread. Two of the pieces are L-shaped and the rest approximately rectangular. According to Tzanavari, the preserved pieces are relatively small and unconnected to each other, which indicates that they are strips sewn onto the garment.[69] One final example of interwoven gold textiles given here is that of the remains of fine woollen threads, wrapped in gold foil, which were recovered in the sarcophagus of Philotera from Kerameikos, dated to the 3rd century CE.[70]

Embroidery and other types of applied decoration provide the third type of golden textiles found in archaeological settings. Embroidered textiles, however, are rare in the Mediterranean area.[71] One example is a fragment of a linen balanced tabby (plain weave) preserved in a bronze urn found at Koropi near Athens. It dates to the late 5th century BCE. The embroidery has been done with linen threads wound about with metal foil – probably silver – to create a lozenge-shaped pattern with small lions in the centre, though only the holes are now visible.[72] Fragments of gold embroidery have also been recovered in Rome in a tomb at the Via dei Granai di Nerva, dated to the 2nd century CE.[73]

These examples demonstrate the different uses of, and techniques applied to, golden textiles in antiquity. Their state of preservation, however, is often extremely poor, making it impossible to decipher their original appearance or the type of garment or accessory for which they were used. However, as demonstrated above, many of the archaeological finds appear to have been ribbons or fillets, possibly used as decorative borders on garments or as belts, girdles or hairbands. This supports the iconographic evidence which particularly highlights the use of garments with golden borders. Moreover, the many examples of holes for metal attachments provide evidence for the use of metal belts and hair bands. The presence of tapestry-woven golden textiles is also evident in the iconography, either in woven borders on mantles and tunics or for entire garments, such as the Tanagra figurine with a golden *himation*. The archaeological source material therefore not only corroborates the evidence from iconographic sources but also adds specific information about how these garments were originally produced.

Written sources

Garments made with gold are referred to in a wealth of ancient literary sources from all over the Mediterranean littoral. The Old Testament provides some of the earliest textual evidence for the existence of gold: the ephod (a ceremonial dress) made for Aaron is described as follows (*Exodus* 39.3):

> He made the ephod of gold, and of blue and purple and scarlet material, and fine twisted linen. Then they hammered out gold sheets and cut them into threads to be woven in with the blue and the purple and the scarlet material.

Similarly in Psalm 45.13, the king's daughter's clothing is described as being interwoven with gold.

Although written sources provide a wealth of information on ancient textiles, their historical accuracy has sometimes to be questioned because some of the translators had little specialist understanding of ancient garments and their manufacture. During the 19th and 20th centuries, when many of these translations were completed, they were done by men who often lacked a specific knowledge of textile work. Most garment terms are thus simply translated as 'robe', 'cloak' or 'tunic'. Descriptions of the decoration and method of production can also become distorted. There is a tendency, it seems, to translate many of these terms as 'embroidery' (the Greek *chrysopoikilos*) or 'shot with gold' (the Greek *chrysopastos*).[74] In most instances, it is therefore impossible to tell whether the garments described in these sources were decorated by means of embroidery, tapestry technique or some other form of decoration; or even, in other instances, whether the entire garment was woven in gold or made from a combination of gold and organic fibre thread. Such broad-brush translations obscure the important nuances and meanings reflected by particular choices of terminology and even risk creating a distorted understanding of these textiles.[75] Examples of a range of written references to golden textiles are given below.

Greek epigraphy: Golden textiles for the gods

Among the written evidence for golden textiles are the so-called temple inventories which are lists recording votive offerings that were kept in the temple treasuries in certain Greek sanctuaries.[76] They generally date from the 5th BCE to the 2nd century CE.[77] Golden textiles are hard to detect in the inventories, though they may be represented in garments described as *chrysopoikilos*. This term is usually translated as 'gold-embroidered', but it might equally refer to gold that has been woven into the fabric in question.[78] The term is only recorded in an inventory from Miletos where it denotes a *strophion*[79] with a thunderbolt motif designated as *chrysopoikilos*. Another inventory from Samos records a *chitoniskos* which is described as *chrysoi peripoikilmenos*, a variant of *peripoikilos* which can perhaps be translated as 'interwoven with gold' or 'decorated with gold all over', possibly reflecting the technique of weaving in gold. The term *diachrysos*, typically translated as 'interwoven with gold',[80] is only recorded on Delos where it is used to describe a belt/girdle.

The inventories also record the use of attachments to decorate the textiles. For example, the term *pasmatia*, interpreted as metal ornaments sewn into garments, provides evidence of this practice.[81] Other possible terms include: *epichrysos*, meaning 'overlaid/plaited with gold' or, sometimes, indicative of metal decorations on garments;[82] and *epitektos*, meaning 'overlaid with gold' or 'with gold ornaments'.[83] All three terms are used in the Brauron catalogues in relation to garments (*poikilen*, *trichapton*, *kandys*). The inventories from Brauron specify *pasmatia* overlaid with gold (*epitekta*)[84] and *pasmatia* of gold (*chrysa*).[85] The former is placed on the garment 'along the border'.[86] The inventory from Miletos records a *kalasiris* with a gold border (*perichrysos*), two *strophoi* and a woollen belt/girdle overlaid or plaited with gold (*epichrysos*); and at Delos, in the Artemision, the goddess is clothed in a purple garment (*estheta porphyran*), again overlaid or plaited with gold (*epichrysos*).[87] These particular terms (*perichrysos* and *epichrysos*) do not occur in the inventories from Brauron or elsewhere.

It is important to note that the garments recorded in the inventories were donated as votive offerings, primarily to female goddesses; and that they were sometimes even used to dress the cult images. They do not necessarily, therefore, reflect the everyday clothing worn by 'real' people; instead, they may represent rather special garments, created for a specific purpose, similar to funerary garments.

Latin sources

Latin sources have plenty to say about different garments of gold. The *Historia Augusta* (SHA), written in the 4th century CE, is a particularly rich source for how Roman emperors

and empresses wore these textiles. However, it should be noted that the SHA is a highly problematic text rather than a serious biography or history; it uses descriptions of dress to create positive, or negative, images of individual emperors, thereby categorising the characters of the emperors according to what they wore.[88] The text is perhaps best used to demonstrate the existence of golden garments (at least from the 4th century CE) and their preciousness, rather than whether or not the emperor in question ever wore them.

The SHA, for example, describes how Marcus Aurelius, regarded as a 'good' emperor, 'held a public sale in the Forum of the Deified Trajan of the imperial furnishings, and sold … his wife's silken gold-embroidered robes' (or perhaps 'garments of silk and gold').[89] Golden garments are also mentioned in relation to Pertinax who held a sale of Commodus' belongings on his accession, which included robes of silk foundation with gold work of remarkable workmanship;[90] and to Elagabalus, who is described as wearing a tunic of gold cloth, or a Persian tunic studded with jewels.[91] For the wedding of Maximinus the Younger, the betrothal gifts included garments that were worked with gold.[92] As a final example, it is stated that Aurelian intended to forbid the use of gold in ceilings, tunics and leather.[93]

Other Roman authors also mention the use of golden garments for the Imperial families, for example Tacitus, according to whom Agrippina the Younger, the wife of Claudius, once wore a mantle made entirely of gold while watching a mock naval battle.[94] Suetonius describes the burial of Nero who was laid on a bier which was covered with white robes, interwoven with gold, which he had previously worn.[95]

The high status of golden textiles is also reflected in descriptions found in Latin poetry. Vergil mentions golden textiles several times, for example in the *Aeneid*, where Andromache brings a garment (*vestes*) decorated (embroidered or woven) in gold as a present for Ascanius.[96] In Book 1, he mentions that gifts saved from the ruins of Troy included a garment (*palla*) that is stiff with golden decoration;[97] and in Book 11, Chloreus, the priest of Cybele, wears precious, yellow garments of gold and linen.[98] Golden garments are also mentioned in the *Georgics* as being a sign of wealth and prosperity.[99]

Ovid is another Latin author who often describes golden garments. In the story of Pentheus and Bacchus, the god is adorned with 'embroidered robes of interwoven gold'.[100] in his story about Arachne and Minerva he describes textiles of a 'scintillating beauty to the sight of all who gaze upon it; so the threads, inwoven, mingled in a thousand tints, harmonious and contrasting; shot with gold: and there, depicted in those shining webs, were shown the histories of ancient days'.[101] In the story of Aglauros and Mercury, Mercury is dressed in a flowing garment with a fringe of radiant gold.[102] Some women also wear golden garments, for example Niobe wears a purple garment, bright with in-woven threads of yellow gold;[103] and Procne has a royal robe bordered with the purest gold which she puts away in order to don garments of mourning.[104] In Book 9, the poet mentions the Amazonian girdle wrought of gold.[105]

Although these examples are not exhaustive,[106] they give a vivid indication of how familiar golden garments would have been to a Roman audience. However, neither the evidence from poetry nor 'historic' sources such as the SHA can provide any real evidence as to how widespread or common these textiles were or what they looked like and how they were made. Instead, poetry and other written sources potentially offer a distorted or biased image of ancient dress that illustrates either the divine or high status of the individual wearing them; or specific moral values or societal ideals. Moreover, the descriptions of these garments are usually vague and limited to the fact that gold is included in their decoration, whether it be interwoven, possibly in tapestry, or applied as decoration. Yet some examples appear specifically to mention garments with gold borders as the ones depicted in art and probably represented in the archaeological record. Moreover, the SHA mentions that Agrippina the Younger wore a mantle made entirely of gold, perhaps similar to the one represented on the Tanagra figurine from the Hermitage, described above.

Roman epigraphy: The producers of golden textiles

Golden textiles are also referred to in Roman funerary epigraphy. However, the Latin inscriptions refer only to their producers and not to the golden textiles themselves or their appearance. Two funerary inscriptions from Rome mention the women who produced such textiles. The first is found on a marble *olla* (cooking pot) from the 1st century CE, from the Via Sacra, which commemorates a woman named Sellia Epyre. This woman is described as an *aurivestrix*, which has been interpreted as a dressmaker in gold.[107] The second is on a marble slab, dated to the end of the 3rd or beginning of the 4th century CE, commemorating a young girl named Viccentia who died at the age of 9 years and 9 months. The inscription describes her as *aurinetrix* – a spinner of gold thread.[108] However, both terms are only found once so it is impossible to say how common these job titles might have been.

Other inscriptions mention *Attalica*, a term which can be translated as gold-cloth either embroidered or woven.[109] This interpretation is based on Pliny's statements. He writes: 'King Attalus, who also lived in Asia, invented the art of embroidering with gold, from which these garments have been called Attalic'.[110] The term is also mentioned by Propertius (3.18) who speaks of *Attalicae vestes* and by Varro (fr. 68).[111] The term is found on two marble bases, dated to *c*. 18–12 BCE, which were recovered at the Via Ostiense in Rome.[112]

Furthermore, the term *barbaricarius* (pl. *barbaricarii*) is usually understood to refer to a maker of cloth with gold

or silver threads or as denoting a gilder.[113] Sinnigen thus interprets the *barbaricarii* as 'workers who decorated parade armour with gold and silver and who produced brocades and fancy textiles in which those precious metals and gems were woven'.[114] The term is mentioned in several inscriptions primarily from the 2nd to the 4th century CE[115] and is listed among the textile professions in Diocletian's price edict.[116]

These sources say nothing about the appearance or manufacture of golden textiles but they do show that textiles made entirely of gold or with gold were regularly produced during the Roman period, thus indicating a specialised craft. The existence of different designations or titles for the producers of gold textiles may reflect the production of distinct textile types.

It is also likely that producers of other types of textiles could also produce gold textiles alongside their main area of specialisation. As an example, a *graffito* in the *officina coactiliaria* of the felter M. Vecilius Verecundus of Pompeii mentions a *tunica lintea aurata*;[117] this might indicate that golden textiles were somehow related to his workshop. Golden textiles might also have been produced by goldsmiths rather than by textile specialists. Thus, according to written sources, *Demosthenes* is thought to have had a special outfit made for the choregic procession (a procession to celebrate Athenian democracy) which included a *gold*-embroidered (?) *himation* prepared by a goldsmith in the agora.[118] Finally, golden textiles might have been produced in private households by elite women for their own use. Claudian, for example, describes how the woman Probia makes golden cord by drawing out silk threads of equal length with the threads of gold and intertwining them.

> Joy is in the heart of that aged mother whose skilled fingers now make ready gold-embroidered vestment and garments agleam with the thread which the Seres comb out from their delicate plants, gathering the leafy fleece of the wool-bearing trees. These long threads she draws out to an equal length with the threads of gold and by intertwining them makes one golden cord. (Translation: Platnauer 1922)[119]

Furthermore, golden textiles would probably also have been imported from abroad, for instance from Phrygia, Lydia, Alexandria, Tyre or Taranto, and it is plausible that many places of production were active simultaneously.[120] However, between the 4th and 6th centuries CE, the production of golden textiles appears to have become a monopoly of the Roman state, thereby excluding their production by private craftsmen or women.[121]

Conclusions

Golden textiles were clearly significant across the ancient Mediterranean from the Archaic period (or perhaps even earlier) to Late Antiquity, *i.e.* from the 5th century BCE to the 5th century CE. By comparing and contrasting three primary sources – iconography, archaeological material and written sources (both literary and epigraphic) – it appears that the use of such extravagant textiles was far more extensive than previously assumed. Gold was so often used for garments and accessories such as ribbons, fillets and belts that, notwithstanding its high value, it cannot have been a rare sight among the higher strata of ancient societies. It is furthermore not surprising that all primary sources confirm the high status of these garments; and that they were reserved for men and women of elite status such as divinities and, particularly, for the Roman Imperial family, all portrayed in artistic and written sources. It is noteworthy that there is as yet no evidence that children of high social status wore golden garments, but this may be because all the known iconographic examples with preserved gilding feature adults – and the archaeological material does not as yet include child burials.

Iconography, archaeological material and written sources serve different purposes and provide different data which can potentially supplement each other. Written sources, for example, mention garments that cannot (as yet) be identified in the archaeological record or in imagery. However, it is only iconography that can provide insights into how golden garments might have been assembled, draped and worn. Images can also provide more accurate information about how gilded figures might once have looked. The Tanagra figurines are an excellent example of this since they illustrate the various ways in which gold was used in ancient times, including differences in the golden borders used for both mantles and tunics. These borders could vary in width from narrow borders (the figurine from the Ny Carlsberg Glyptotek) to very wide borders (the figurine from Berlin). Gold was not only used for borders, as the figurine from the Hermitage shows: it could also form the body of fabrics used for mantles and the like. Marble sculptures also shed valuable light on the use of gold in textile production since a wealth of information can be found in their polychromy and in the occasional holes made for metal attachments.

The study of ancient polychromy is still relatively new and has yet to be fully integrated into the study of ancient textiles. Archaeological discoveries in the future will no doubt provide new insights and flesh out the information gleaned from the careful examination of ancient art works. With this more nuanced picture will emerge a greater understanding of the fabrics of ancient societies, of dress and clothing in general and of the place within them of golden textiles. Polychromy studies will play a key part in this process, whether the evidence be archaeological, written or, most significantly, iconographic.

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Notes

1 The term 'Golden' textiles, fabric or decoration is used in this article to signify textiles (or decoration) which have gold either woven by various methods into the fabric or used or added as decoration.
2 Gleba (2008, 61); *Exodus* 39.3.
3 The practice of painting sculpture *etc.* in a variety of colours.
4 Livy, *Ad Urbe Condita* 10.7.9 and 30.15.11–12.
5 Bourgeois (2010, 239).
6 An operating microscope or surgical microscope is an optical microscope.
7 Eastaugh *et al.* (2004, 285).
8 Pliny 33:22; translation Bostock (1855). Orpiment is also mentioned by Vitruvius (7.7.5) who believed it came from Pontus, the ancient name of the north-eastern province of Asia Minor.
9 Eastaugh *et al.* (2004, 285).
10 Usually a cylindrical vessel used mainly by women to hold cosmetics, jewellery *etc*.
11 Brecoulaki (2014).
12 Zink (2019).
13 Oddy (1981, 75).
14 Zink (2019).
15 Oddy (1981, 76–77).
16 Zink (2019). For examples of bole gilding on red pigments on Roman marble statuary, see for example Abbe (2010, 280–284).
17 National Archaeological Museum Athens, inv. no. 4889.
18 Greek sing. *kore,* pl. *korai.*
19 Brinkmann *et al*. (2017, 121).
20 Brinkmann *et al.* (2017, 121).
21 Chrysostomou and Chrysostomou (2012, 370, 378).
22 Examples include Williams and Ogden (1994, 104); British Museum, inv. nos GR 1877.9–10.15, GR 1876.5–17.11; and Metropolitan Museum of Art, New York, inv. nos 06.1217.4–10.
23 Ny Carlsberg Glyptotek, inv. no. IN 895. According to museum records, it was acquired in 1886 in Paris from the collections of H. Hoffmann. Height 40 cm.
24 Nielsen and Østergaard (1997, 98).
25 For the use of Egyptian blue as an indication of authenticity, see Brøns *et al.* (2018).
26 Greek sing. *himation*, pl. *himatia.*
27 Louvre, inv. no. MNB 907. Height 32.5 cm.
28 British Museum, inv. no. 1875,1012.15. Height 24.2 cm. Pink *himation* and no traces of gilding.
29 Antikensammlung, Berlin, inv. no. TC 7674. Height 34 cm.
30 St Hermitage Museum, inv. no. 435A. Height 31 cm. Gilded *himation* with a blue border; blue *chiton* with a white rectangle (?); white shoes with red soles; fan with gilded border.
31 Analysis of the polychromy of the Louvre figurine has identified a white preparation layer, covered by a grey layer of kaolin and carbon black, followed by a layer of Egyptian blue for the garments. See Bourgeois (2010) for a discussion.
32 Jeammet (2010, 118).
33 See also Mactaggart and Mactaggart (2011, 41–48).
34 Bourgeois (2010, 240).
35 Pagés-Camagna (2010, 251).
36 Pagés-Camagna (2010, 250).
37 Abbe (2010, 280).
38 For entirely gilded sculptures, see Blume (2015, 104–106). An example is the Hellenistic statue group of Artemis and Iphigenia in the Ny Carlsberg Glyptotek where analysis has shown the entire sculpture of Artemis to have been originally gilded, inv. nos. IN 481–482. Note that there is no evidence gold use in cosmetics during antiquity. Orpiment, a yellow pigment imitating gold, was used only for hair removal. Stewart (2007, 93).
39 Ny Carlsberg Glyptotek, inv. no. IN 480. Height 172 cm.
40 The analyses carried out by the conservator Signe Buccarella Hedegaard in 2018–2019.
41 Abbe (2010, 284–285).
42 Bourgeois and Jockey (2010).
43 Bourgeois and Jockey (2010, 230).
44 National Archaeological Museum of Athens, inv. no. 1827. Height 175 cm.
45 Blume (2010, 247–250); Blume (2015, cat. 25); Bourgeois and Jockey (2010, 231). The basic colour(s) of the garments cannot be determined, although there are some traces of red on the *chiton* and pink on the *himation*. See Blume (2010, 247–250).
46 Delos Museum, inv. no. A4135.
47 Bourgeois and Jockey (2010, 230).
48 Delos Museum, inv. no. A4134. Height 68 cm.
49 Bourgeois and Jockey (2010, 230); Blume (2015, 205, cat. 30).
50 See for example Brøns (2014, 68–71).
51 Ny Carlsberg Glyptotek, inv. no. IN 520. Height: 140 cm. Ridgway (1981) suggests that the statue is a Roman copy of a Greek original. Vague traces of blue colour in the folds of her garment evident in 1936 are no longer visible.
52 Gleba (2008). See also Bedini *et al*.'s (2004) study of golden textiles from Rome and its surroundings. Their incidence may be much higher since the organic components of the textiles, such as gold thread, are only rarely preserved; and even these may have been misidentified as jewellery, not textiles, in scholarly publications, See also Nosch (2016).
53 For example, a funerary urn from Chianciano, dated to the 7th century BCE or earlier, contained fragments of a purple linen fabric mixed with bits of gold. Sebesta (2001, 66); Bonfante (2003, 11). In the Regoloni-Galassi tomb, first half of the 7th century BCE, were found the remnants of a woman's robe, once heavily decorated with gold. Shams (1987, 12,14); Sebesta (2001, 66).

54 Gleba (2008).
55 Included here are only the significant examples of golden textiles and reports of new research not found in Gleba (2008).
56 Gleba (2008, 68).
57 For example Metropolitan Museum of Art, inv. no. 1987.220 (*c*. 200–150 BCE); Antikensammlung, Berlin, inv. no. 1980.22.
58 National Museum of Denmark, inv. no. 848. Pers. comm., Bodil Bundgaard-Rasmussen.
59 Garcia and Conroy (2010).
60 A weft-faced tabby is a plain weave (tabby) textile with a predominant weft.
61 Pers. comm., Mary Louise Hart; research to be published in a forthcoming *Getty Research Journal*. See also http://www.getty.edu/art/collection/objects/15172/unknown-maker-textile-fragments-roman-100-bc-100-ad/ (accessed June 2021).
62 Gleba (2008, 68).
63 Gold strips such as these, usually dating to the 4th century BCE, have for example been recovered from the Mausoleum at Halikarnassos. The *lamellae*, dated to the first half of the 4th century BCE, were found together with gold ornaments: appliques, rosettes and similar items. The *lamellae*, made of a gold foil hammered thin and cut into strips of 0.2 mm to 1 mm wide, are preserved in lengths ranging from 0.6 to 7.9 cm. Bundgaard-Rasmussen (1998); Jeppesen (2000, 124–140, nos 40, 48, 61, 66, 88).
64 D'Orazio and Martuscelli (1999, 177, no. 202); Gleba (2008, 65).
65 Bedini *et al*. (2004).
66 Gleba (2008, 61, 62).
67 Gleba (2008, 65). Another example – a gold and purple linen cloth, decorated with vegetal motifs – was said to have been found in a tomb at Derveni, see Makaronas (1963).
68 Tzanavari (2012, 25).
69 Tzanavari (2012, 28).
70 Touratsoglou (2011).
71 Droß-Krüpe and Paetz gen. Schieck (2014, 219).
72 Barber (1991, 206); Gleba (2008, 65); Droß-Krüpe and Paetz gen. Schieck (2014, 221).
73 Bedini *et al*. (2004, 84).
74 *LSJ s.v. chrysopoikilos* and *chrysopastos*.
75 Brøns (2016, 15).
76 Golden textiles were also donated in Roman sanctuaries: an inscription records a donation at Nemi of a purple linen tunic with gold clavi. CIL 14.2215: *lentea purpura cum clavis aurea*.
77 For a thorough study of Greek temple inventory lists, see Brøns (2016).
78 *LSJ s.v. chrysopoikilos*.
79 The *strophion* is an elusive garment item, interpreted as a band worn by women around the chest or a headband worn by priests. *LSJ s.v. strophion.*
80 *LSJ s.v. diachrysos*.
81 Cleland *et al.* (2007, 139).
82 Cleland *et al.* (2007, 59. *LSJ s.v. epichrysos*).
83 Cleland *et al.* (2007, 59. *LSJ s.v. epitēktos*).
84 *IG* II² 1524B, 178.
85 *IG* II² 1523, 9 = *IG* II² 1524, 181.
86 Linders (1972, 26).
87 *ID* 1442B, 54–56.
88 Harlow (2005, 152).
89 SHA Marcus Aurelius 17.4: *vestem uxoriam sericam et auratam*. Translation: Magie (1921).
90 SHA Pertinax 8.2–4: *vestis subtegmine serico aureis filis insigni opere*. Harlow (2005, 149).
91 SHA Elag. 23.4. Harlow (2005, 147).
92 SHA Maxim. Duo, 27.3–8: *vestes auratas*.
93 SHA, Aur. 46.1. See also Tacitus 11.6, with Harlow (2005, 151).
94 Tac. *Ann.* 12.56: *chlamyde aurata*, and cf. Sebesta (2001, 71–72).
95 Suet. *Ner.* 6.50.
96 Verg. *Aen.* 3.483: *picturatas auri subtemine vestes*.
97 Verg. *Aen.* 1.648: *pallam signis auroque rigentem.*
98 Verg. *Aen*. 11.776: *tum croceam chlamydemque sinusque crepantis carbaseos fulvo in nodum collegerat auro pictus acu tunicas et barbara tegmina crurum*.
99 Verg. *Georg.* 2.464: *auro vestes*.
100 Ov. *Met.* 3.509: *coronae purpuraque et pictis intextum vestibus aurum.*
101 Ov. *Met.* 6.1. Translation: Brookes More (1922).
102 Ov. *Met.* 2.708.
103 Ov. *Met.* 6.146.
104 Ov. *Met.* 6.504.
105 Ov. *Met.* 9.172.
106 Other examples include Apuleius (*Golden Ass* 4.7), Horace (*Carm*. 4.9.14: *aurum vestibus inlitum)*, and Valerius Flaccus (3.11: *muneribus primas coniunx Percosia vestes quas dabat et picto Clite variaverat auro*).
107 Museo Nazionale Romano, inv. no. 29316. CIL 6.9214. See Chioffi (2004, 91–92).
108 Musei Vaticani, Rome. CIL 6.9213. Chioffi (2004, 94).
109 *LSJ s.v. Attalicus. Attălĭca, ōrum, n.* (sc. *vestimenta*), garments of inwoven gold.
110 Plin. 8.74. Translation: Bostock (1855).
111 Varro, fr. 68: From the Attalid legacy came tapestries, cloaks, robes, coverlets, golden vases (*ex hereditate Attalica aulaea, clamides, pallae, plagae, vasa aurea*).
112 Musei Capitolini, Rome, inv. nos NCE 2385, 2386. CIL 6.1375. See Chioffi (2004, 89–91).
113 Lewis and Short (1879) *s.v. barbaricarius*.
114 Sinnigen (1963, 807).
115 For example, CIL 5.785 and CIL13.1. See also Rey-Coquais (1995, 78–79).
116 Gleba (2008, 63).
117 Sebesta (2001, 72).
118 Demosthenes, *21*.22.
119 Claudian, *Panegyric to Probinus* 181.
120 Gleba (2008, 69).
121 Rey-Coquais (1995, 79); Gleba (2008, 63).

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Chapter 10

Arachne revisited: Hubris and technology in the Forum Transitorium frieze, Rome

Magdalena Öhrman

Abstract

The weaving contest between Minerva and Arachne (described in Ovid's Metamorphoses*) is depicted in the friezes in the Forum Transitorium in Rome. The interpretation of the mythological motif and its combination with scenes of textile production is debated. Through analysis of the Arachne episode in the* Astronomica *of Manilius (4.128–139), this paper shifts the focus from Arachne to Minerva as patron goddess of craft and addresses the purpose of repetitive features in the frieze panels depicting cloth preparation. The paper argues that the motif of virtuous textile work offers an imperial response to an emerging stoic paradigm of uxorial[1] loyalty while simultaneously showcasing the economic value of strongly gendered traditional textile work in and beyond the elite. The repeated display of a loom-type rarely paralleled at the time creates a pronounced focus on the potential economic output of female industriousness, expertise and technological development.*

Introduction

The frieze surrounding the temple of Minerva in the Forum Transitorium, created under the emperor Domitian in the late 1st century CE,[2] features an elaborate sequence of textile working scenes that detail spinning, weaving and inspection of finished cloth (Fig. 10.1).[3] By focusing on the frieze's depiction of weaving technology and, especially, the repeated depiction of two-beam looms, textile scholars are cautiously inclined to accept the identification of the central motif as representing the mythic contest between Arachne and Minerva (Fig. 10.2). They rarely, however, venture beyond the idea that it was inspired by Arachne's skill as an exquisitely skilled weaver.[4] This is in direct contrast to the views of Eve D'Ambra who has persuasively argued, in her monograph on the remains of the frieze, that this identification should be based on the dynamic poses of the central characters;[5] she therefore, not surprisingly, made relatively little of the diverse and novel textile technologies displayed in other parts of the frieze. This paper takes a more holistic approach by exploring in more detail the association between the display of Minerva's victory over Arachne in the central narrative panel and the attention to training and technological development in textile crafts that so dominates other parts of the frieze.

Ovid's cautionary tale: Arachne in the *Metamorphoses*

As D'Ambra has argued, Arachne's tale can be regarded as a cautionary one when it is related more closely to contemporary literary references to this goddess. These references will be used to investigate how Arachne's story relates both to the focus on weaving technology to be found in other parts of the frieze and to its function in the specific setting of the Forum Transitorium.

D'Ambra suggests that for the emperor Domitian, Arachne's story serves as a warning: Arachne is a rebel against authority, she offends against Minerva and – based on Ovid's *Metamorphoses* – she weaves tales that represent a dangerous erosion of sexual *mores*.[6]

Fig. 10.1. Overview of the extant parts of the frieze, with the central panel below the attic relief of Minerva. Photo: Author.

Fig. 10.2. Central narrative panel. Minerva, recognisable by her helmet and aegis, stands with her hand raised to strike Arachne by her loom. Photo: Wikimedia Commons (CC BY-SA 4).

Fig. 10.3. Minerva (seated) demonstrates the use of a distaff. This panel is set to the left of the narrative panel. Photo: Wikimedia Commons (CC BY-SA 4).

D'Ambra sees other panels displaying women engaged in different aspects of textile work as exemplifying traditional Roman domestic virtues in deliberate contrast to Arachne. These panels include a scene where Minerva herself gives instruction in spinning (Fig. 10.3).[7] According to Ovid – whose extensive retelling of Arachne's story quickly becomes canonical[8] – Arachne is strongly aligned with the poet himself and he portrays her as an ingenious artist with considerably more talent and ingenuity than her divine opponent.[9] While Ovid makes evident Arachne's *hubris* (excessive pride, especially defiance of the gods) (Ov. *Met*. 6.24–25, 50–51), Minerva's revenge on her appears to be not so much a justified vengeance on the impious as an unflattering example of wounded despotic pride.[10] From the perspective of the Ovidian intertext alone, Minerva's use of her divine authority is at best ambiguous; it potentially generates sympathy for a mortal weaver who refuses to submit to authority. In the context of an imperial monument, which implicitly links the divine authority of Minerva with the authority of the emperor, the inclusion of such an episode has to be questioned further.

Beyond Ovid: Arachne in Manilius' *Astronomica*

It is possible to gain additional perspectives on contemporary attitudes to Arachne's story by looking beyond Ovid to the marginally later *Astronomica* of Manilius (4.124–139).[11] In the beginning of his fourth book, Manilius details the signs of the zodiac and the characteristics of the people born under each sign.[12] In the section on Aries, 'rich in abundant wool' (Man. 4.124), Arachne and Minerva's contest is mentioned only briefly (Man. 4.136) but depth is added to the mythological reference by the theme of textile work in combination with skill that is sabotaged by *hubris* throughout the section. This reinforces a reading more sympathetic to Minerva than to Arachne.

In describing the character of the ram, Manilius devotes three entire lines to the cyclical nature of sheep shearing (Man. 4.125–127). These lines are delivered through the story of the ram himself: firstly he is rich, then loses his wealth (*i.e.* he is shorn of his wool), then he takes new heart and gathers together his ambitions, rising from nothing only to fall again, condemned by his very ability to regrow his fleece. The argument gains weight by the very length of the text; Manilius implies that the ram sees his abundantly growing fleece only in terms of his own individual wealth and splendid appearance, even though through numerous different crafts his abundance comes to benefit the world at large (Man. 4.128–129). Three fast-paced lines illustrate this: people roll up raw wool and comb it (130), spin and weave it (131) and, finally, buy and sell the garments they have made (132). The importance of textile production is emphatically stated in 133–134: no society, even one that rejects luxury, can manage without it. For this reason, Minerva has declared it to be her own responsibility, a task worthy of her own personal involvement. In a line most crucial to this argument, Manilius states that it was for

this reason that Minerva claimed greatness for defeating Arachne:

> *… tantum est opus, ispa suismet* Man. 4.134
> *asseruit Pallas manibus dignumque putauit,*
> *seque in Arachnaeo magnam putat esse triumpho.* 4.136
>
> 'So important is this work that Pallas herself has claimed it and thought it worthy of her own hands, and considered herself great for her victory over Arachne.'[13]

Although no further details are given about Arachne's attitude, the word *putauit* ('she [Minerva] considered', Man. 4.135) acknowledges that a degree of ambiguity attaches to Minerva's victory, thus subtly acknowledging the Ovidian emphasis on Arachne's superior skill. However, the following lines reassert the theme of *hubris* and suggest the reason for Minerva's insistence on Arachne's destruction. Manilius states that those born under Aries' sign are suited to these and similar crafts but that they are also forever seeking individual recognition and praise (Man. 4.137–139). This brings to mind the insistent refusal of Ovid's Arachne to acknowledge any influence, direct or indirect, from Minerva's teaching on her skill (Ov. *Met*. 6.23–24).[14] The contrast between the ram's egoistic delight in his wealth and the benefits his wool brings the world (Man. 4.125–129), taken together with the emphasis in the immediately preceding lines on the importance of textile work to society (Man. 4.133–134), indicates that Manilius' Minerva sees the contest with Arachne as being one that was about far more than the skill of weaving. Arachne is held up as a warning example of the problems arising from individuals flaunting their own skills in these arts rather than being ready to teach them to others and thereby sharing the rewards of their own industry with society at large. In contrast to Ovid, Manilius reinterprets the Arachne/Minerva contest as one of individualism versus commitment to the common good so that Minerva's victory comes to represent the *sharing* of skills in textile work amongst a wider community.

Manilius is not alone in highlighting Minerva's protection of all stages of wool and cloth preparation: Ovid does so, too. His calendar poem *Fasti* (a core intertext for Manilius' astronomical handbook) emphasises Minerva's oversight of wool-combing, spinning and weaving in the description of a festival connected to the commemoration of the dedication of the Minerva temple on the Aventine.[15] As in Manilius' account, a step-by-step description brings the textile *chaîne opératoire* and its aim of cloth production to the fore.[16] Furthermore, Ovid's description of Minerva's involvement in the teaching of wool-work becomes a launching point for a description of several crafts protected by the goddess that extend well beyond textile work, listing fullers, dyers, teachers, doctors, painters and stonemasons. Here, too, the emphasis is on how the protection of crafts by Minerva Ergane benefits the whole of a highly diverse Roman society.

Minerva's way: Technological innovation in the frieze

Approaching the Arachne motif in the Forum Transitorium frieze via Manilius thus creates a closer, even causal, relationship between the central cautionary tale-panel and the representation of the processes of textile production in other parts of the frieze. Minerva appropriates and shares Arachne's craft with her followers. By doing so, she also assumes Arachne's contemporary association with skilled invention. While Ovid's focus is on Arachne as a skilled and imaginative weaver, writers in the Flavian period emphasise her technological innovation: Pliny the Elder credits her with the invention of linen production and Statius implies that she was the first tapestry weaver.[17] Hence, by implication, the central panel comes implicitly to express Minerva's ability to harness and bestow on her followers not just Arachne's skill but also the advantages of technological development. This matches the focus on technical detail in other parts of the frieze, both in the scene where Minerva demonstrates the use of a distaff (Fig. 10.3) and, particularly, in the frieze's prominent display of two-beam looms (Fig. 10.2, 10.4, 10.5, 10.6).

While this iconographic representation provides only a *terminus ante quem* for Roman use of the two-beam loom, repeated mentions of warp-weighted looms in Augustan literature suggest that the two-beam loom was still a relatively recent addition to Roman weaving technology;[18] this would explain the frieze's focus on its operation. Two panels (Fig. 10.5 and 10.6) display looms used by two women, one reaching up to the top of the loom frame and grasping something in her hand, the other extending her hand upward as if to pass on something or take it back. Are they displaying the same stages of work or different ones? As others have noted, the relative positions of the women in both scenes correspond tantalisingly well to the passing of warp yarn between workers involved in warping, especially in a tubular set-up (Fig. 10.7 and 10.8).[19] However, there are subtle differences between these panels that hint at different actions.

In the loom scene immediately to the right, a triad of women rush toward Minerva and Arachne in the centre (Fig. 10.4, detail in Fig. 10.5).[20] Here, the straight side of the object held up by the seated woman together with its length suggests it might either be a small weaving sword, like the smallish bone weaving swords with handles that have been found in Pompeii;[21] or the wholly flat type found, for example, in Ulpia Traiana, which in reconstruction has proved to be an extremely versatile tool for weaving on the two-beam loom.[22] If this is the case, then weaving is already under way in this panel.[23] The standing woman, reaching up

Fig. 10.4. Overview of the central panel. From left to right: Women inspect a finished textile; Minerva has her hand raised against Arachne, while three women of differing ages rush toward them; Two weavers working on a two-beam loom (cf. Fig. 10.5). Photo: Wikimedia Commons (CC BY-SA 4).

Fig. 10.5. A pair of weavers at work (1). The seated woman clears the shed with a small weaving sword, while the standing woman seems to operate a shed-changing mechanism. Photo: Wikimedia Commons (CC BY-SA 4).

Fig. 10.6. A pair of weavers at work (2). The standing woman appears to grasp a strap running around and over the top beam, possibly attached to a rod holding the end of the warp. Photo: Livius.org.

and grasping something in her balled hand, might then be operating a mechanism to lower or raise the shed rod, an action represented by incised lines running from her hand up to the top beam.[24] The position of her hand suggests a downward pulling action, whereas the seated weaver reaches up and uses the small weaving sword to open the new shed further. Experimental reconstructions of mechanised weaving on the two-beam loom suggest that moving the shed rod is the most frequently repeated working action that requires movement in the upper rather than lower half

Fig. 10.7. Warping a two-beam loom with a tubular warp. Experimental reconstruction for the 'Textile Reflections' project at the Centre for Textile Research. Weaver Ulrikka Mokdad and the author both stand to pass the warp yarn over the top beam. Photo: Author.

Fig. 10.8. Warping a two-beam loom with a tubular warp. Weaver Ulrikka Mokdad arranges the warp threads around the lower beam. Photo: Author.

of the loom.[25] The contemporary evidence to support such an interpretation is so far lacking: later depictions of two-beam looms in Roman contexts, though displaying a shed rod in use, include no traces of any mechanism being fixed to the middle of the top beam; and there are no examples of similar systems for operating the shed rod with a centrally placed handle to be found in later Roman iconography or in ethnographic parallels. Despite this lack of evidence, experimental practice suggests that such a mechanism must remain a possibility.

In the other half of the frieze, the depiction of the standing woman in the second scene featuring two women at a loom (Fig. 10.6) is subtly different.[26] The object she is grasping with her left hand passes over the middle of the upper beam. The interpretation of this object as individual warp threads is unsatisfactory:[27] it appears instead to be a solid strap extending downward. Given that this would prevent an even spacing of warp threads over the top beam, it is possible that the image shows not the warping of a tubular set-up but the gradual letting down of a warp stretched between loose rods that are tied to the horizontal beams with cords or straps.[28] If so, this is not the beginning but the end of the weaving process, an interpretation that would seem entirely appropriate given that this panel is not only far removed from the narrative centre of the frieze[29] but also one that neatly complements the depiction in the panel just discussed, which shows weaving in progress.

Conclusion

The damage to the frieze prevents a definitive conclusion. Nevertheless, it is evident that it celebrates the display of working processes that are done differently in the two-beam loom compared to the more familiar warp-weighted loom: warping, shed mechanisms, completion and the direction of weaving. The frieze's depiction of two-beam looms would have resonated with a contemporary audience familiar with the warp-weighted loom and it highlights the novel technological opportunities offered by such a loom. Well suited to its place in the Forum, which connected the busy lower end of the Subura to the public spaces of the

Imperial Fora and the Forum Romanum itself,[30] the motif of textile-technological development would have been recognisable to less affluent workers involved in textile production, many of whom may have worked or lived in the neighbourhood immediately north of the Forum Transitorium.[31] The frieze's repeated display of anonymous weavers at work on this comparatively new loom type would have served to emphasise the range of women involved in textile work, not least through its inclusion of different age groups (Fig. 10.4).[32] In contrast to later Roman depictions of the two-beam loom which display lone women at work,[33] the frieze's emphasis on women working together, in pairs or in larger groups, brings to mind common working practices while at the same time suggesting that the weaver can be seen in terms of a wider context: the *chaîne opératoire* and a contribution to society. Intended to inspire, the frieze thus provides a space into which a viewer can insert herself and her weaving experience, sharing in both Minerva's protection and the wider benefits of technological diversification. It may even be that the motif of weavers and looms in the frieze represents an attempt by the emperor to encourage the use of new tools and production techniques, as well as serving as a reminder of the traditional duties of Roman women.[34]

True to its location, the frieze can also speak to elite audiences, especially to those undertaking or managing textile work as part of their performance of female domestic virtues.[35] The display of female virtuous wool-work is connected to Domitian's efforts to revitalise Roman morals;[36] but, set alongside the cautionary tale of Arachne's individualistic *hubris*, it also offers a counterpoint to an emerging stoic paradigm of uxorial loyalty whereby wives supporting or outshining their husbands in individual moral strength are lauded even though they may stretch the norms for female behaviour.[37] Pliny the Younger's letters praise Arria (wife of Paetus, whose response to her husband's enforced suicide outdid his own) and her granddaughter, Fannia (who voluntarily went into exile with her husband) as icons of stoic virtue.[38] Flavian epic prominently features several such women: Valerius Flaccus recasts the Arria episode in a mythological setting and Statius' Argia urges her husband to war.[39] The emperor Domitian's display of the paradigmatic female activity of textile work instead advocates a realisation of conjugal loyalty, where spouses are committed partners with distinct responsibilities, both working together for an increased shared prosperity. This ideal had found recent expression in Columella's handbook on agriculture:[40]

> *erat enim summa reuerentia cum concordia et diligentia mixta, flagrabatque mulier pulcherrima aemulatione, studens negotia uiri cura sua maiora atque meliora reddere*. (Colum. 12 *praef*. 7)
>
> 'For there was the greatest respect [between them], mingled with harmony and diligence, and the woman was fired with the most noble competition, and she strove to render her husband's interests greater and better through her own care.'

Drawing on similar themes, Arachne's story suggests that female dedication should serve shared goals, whether within the spousal unit or within the empire. Domitian's point is not merely a sexual–moral one. The detailed depiction of textile tools, and the repeated display of a loom-type rarely portrayed at the time, create a pronounced focus on the potential societal and economic output of female industriousness, expertise and technological innovation. Overall, the frieze reinforces the state-bearing role of Roman women by connecting that role specifically with the economic development of Roman society.[41]

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Notes

1 Uxorial = wifely.
2 La Rocca (1998, 1–3); Coarelli (2007, 113).
3 The dedication of the temple and its frieze is but one example of Domitian's particular devotion to Minerva, *e.g*. D'Ambra (1993, 10–12); Hekster (2010, 604–608).
4 The identification of the crouching woman in the central panel as Arachne is only tentatively accepted in J.P. Wild's discussion of Roman loom types (Wild 1992, 13) but credited by Alfaro (1997); Larsson Lovén (2007, 234); Tzachli (2012, 133–134). Szilágy (1984, 471); Wild (1992, 13); D'Ambra (1993, 47–56) consider it unsubstantiated due to a lack of parallel examples.
5 D'Ambra's identification (1993, 47–54, 59–60, 70–71) relies on a combined interpretation of the central panel and the panel immediately to its right. The overly tall goddess wearing the *aegis* associated with Minerva has her hand raised as if to strike, while the woman seated at her feet extends hers to plead for mercy. The three women of differing ages rushing towards the Arachne/Minerva pair underline the sense of a narrative turning point, well matching the dramatic turning point of punishment and transformation in the Arachne myth.
6 D'Ambra (1993, 47–51, 54, 70–71, followed by *e.g.* La Rocca (1998, 6); Newby (2016, 67–68).
7 D'Ambra (1993, 51–60).
8 Bömer (1976, 11–12).
9 The fluid structure of Arachne's weave metapoetically recalls the structure of the *Metamorphoses* themselves, whereas her punishment by an absolute ruler may allude to the exile

of Ovid by Augustus, *e.g*. Galinsky (1975, 82–83); Harries (1990, 64–77); Vincent (1994, 361–383); Rosati (1999, 240–253); Oliensis (2004, 286–296); Feldherr (2010, 60–61). Harich-Schwarzbauer (2016, 150–156) sidesteps both the metapoetic and biographical interpretation of Ovid's Arachne, focusing instead on Arachne's rebellion against Minerva as a rationalist response to the hegemony of the Olympian pantheon.

10 Oliensis (2004, 287–290). See also D'Ambra (1993, 49); Vincent (1994, 363–364); Rosati (1999, 240–253). Ovid's perspective colours the depiction of Minerva's revenge in *Myt. Vat*. 1.90: … *Arachne … contumeliose a Minerua pulsa esset* … ('Arachne was shamelessly struck by Minerva').

11 On the dating of Manilius to the latter half of Augustus' reign, or to that of Tiberius, Volk (2002, 200–202; 2011, 4–5) with further bibliography.

12 On the zodiac section of Manilius 4, Green (2011, 123; 2014, 33).

13 Translations from the Latin are by the author.

14 Haupt (1969, 304).

15 Ov. *Fast*. 3.815–830. Bömer (1958, 199–201); Merli (2000, 124–125).

16 Ov. *Fast*. 3.815–820.

17 Plin. *Nat*. 7.196: … *fusos in lanificio Closter filius Arachneae, linum et retia Arachne* ('Closter, Arachne's son invented the use of the spindle, Arachne herself linen and netting'); Stat. *Theb*. 11.401: *Maeoniis Argia modis ac pollice docto / stamina purpureae sociauerat aurea telae* ('In Lydian fashion, Argia joined with practised thumb golden threads to her weave'). The adjective *Maionius* refers to Arachne's birthplace of Lydia.

18 The clay weights characteristic of the warp-weighted loom are mentioned explicitly in Tib. 2.1.66 and Sen. *Epist*. 90.2 (*pondera telae* 'weights of the loom'), whereas Ov. *Epist*. 1.10 refers to Penelope's weave as *pendula tela, i.e.* a hanging web, an appelation more appropriate to weaves on the warp-weighted loom. Two-beam looms may have been used in northern Italy during the pre-Roman period, Gleba (2008, 124–127).

19 Wild (1992, 13); D'Ambra (1993, 118); Alfaro (1997, 53); Staermose Nilsen (1999, 128–129; 2011, 64–65).

20 This corresponds to the far left panel in D'Ambra's Section 4, see. D'Ambra (1993, 54, 118 and fig. 59).

21 Cheval (2011, 145–146).

22 Köstner (2016, 181–182).

23 Wild (1992, 13) points to the cushion used by the seated woman as another indication that she is already positioned for continuous work.

24 Picard-Schmitter (1965, 301–311) argues that the two similar panels display the process of heddling and the shifting of the heddle rod but draws on anachronistic parallels with early modern and Chinese draw looms as well as chronologically relevant lexicographical evidence. While Picard-Schmitter's conclusions regarding Roman weaving technology are not confirmed by the archaeological evidence, his suspicion that a shedding mechanism is set up or used, and his emphasis on subtle differences between the respective poses of the standing women in these two panels, is astute.

25 Köstner (2016, 177), on experimental weaving of child's tunic in LVR-Archaeological Park Xanten, indicates that convenient weaving of a narrow textile ensued when one weaver inserted the weft while another operated the shed mechanism. When weaving full-width parts of the tunic, the Xanten team added strings to the shed rod, allowing weavers to raise and lower it from a seated position. A more limited, yet period-appropriate, reconstruction of weaving on the two-beam loom undertaken with the assistance of weaver Ulrikka Mokdad at the Centre for Textile Research in 2018 confirmed that, once weaving was under way, the need to shift and adjust the shed rod caused most movement in the upper part of the loom.

26 This corresponds to the far right of Section 4 in D'Ambra's division of the frieze, D'Ambra (1993, 69, 125 and fig. 81).

27 See also (Wild 1992, 13). It is interpreted as a bundle of warp-threads by D'Ambra (1993, 69, 128), who argues that this scene, too, displays warping.

28 Köstner (2016, 177 and Abb. 4); Rast-Eicher (2005, 77 and Abb. 20) illustrate how cord or leather straps have been used for this purpose in experimental reconstructions of weaving on the two-beam loom. The latter features Ciszuk's reconstructions of *taqueté* weaving, see Ciszuk (2004, 107–113), where a similar method is used to fasten the rod holding the lower end of the warp to the bottom beam (Ciszuk 2004, 110 and photo 3).

29 D'Ambra (1993, 56, 68–70).

30 La Rocca (1998, 1–10).

31 While textiles were sold (and possibly made) in Subura (*CIL* 6.9526), it must not be assumed that such trade was necessarily more prominent here than elsewhere in the city: full consideration of the epigraphical evidence is beyond the scope of this paper. Textile workers from other areas may also have passed through this area. See Droß-Krüpe (2016, 342–346) on the absence of clear clustering patterns for textile-related professionals in Ostia, Pompeii and Rome. On the varied character of the Subura, La Rocca (1998, 3–4); Malmberg (2009, 40–47, esp. 41); Andrews (2014, 61–87).

32 D'Ambra (1993, 51–52).

33 This applies to the weaving scenes depicted in the *Ipogeio degli Aurelii* (3rd century CE) in Rome and in the illumination of the Vatican Vergil manuscript (Verg. Cod. Vat. Lat. 3225), both featuring lone female weavers. The funerary dedication to Severa Seleuciane (Rome, late 3rd century CE) includes an incised drawing of a two-beam loom similar to those featured in the frieze but does not display a weaver at work.

34 On Domitian's direct involvement in economic policy, including grain and wine production in Italy (Suet. *Dom*. 7.2), and minting, Jones (2002, 77–79); Launaro (2016, 200–202), but see also Garnsey *et al.* (2015, 86).

35 On the performative aspect of textile work by elite Roman women, *e.g.* Larsson Lovén (2007, 230–231); Wilkinson (2015, 65–73); Öhrman (2018, 97–99).

36 D'Ambra (1993, 36–38, 49–50, 104–108).

37 Bernstein (2008, 26–27, 95–104); Keith (2013, 293–294); Newlands (2016, 158–160). See also Bessone (2010, 87; 2015, 131).

38 Plin. *Epist*. 3.16; 7.19; Dio 60.16; Mart. 1.13, on which see Langlands (2014, 214–234).

39 Keith (2013, 285–286) on the suicide of Alcimede and Aeson in Val. Fl. 1.816–22. On Argia in comparison to Arria, 293–294.

40 Columella's activity largely falls under the reign of Nero, see Reitz (2013, 275–277). Carlon (2009, 157–163); Reitz (2013) shows that the same notion of husband and wife working towards a common goal recurs in Pliny's praise both of his own wife Calpurnia and of other wives or wives-to-be. Treggiari's survey of Roman attitudes to marriage points to similar notions being present in Cicero and Seneca, Treggiari (1991, 207–209) on Cicero; (215) on Seneca.

41 See also D'Ambra (1993, 54) and on Stat. *Silv*. 4.1.22.

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Chapter 11

Fringed clothing in Roman iconography and written sources

Kelly Olson

Abstract

This paper examines the depiction and function of fringes in Latin literature and Roman art, with a short survey of fringes in the ancient Greek, Near Eastern and Jewish societies. It argues that fringe may have functioned in an apotropaic manner, just as bells did. This hypothesis is strengthened by the fact that fringe was not a fashion item in Roman antiquity but usually used to decorate ritual garments.

Introduction

This paper examines the presence and meaning of fringed garments in Roman iconography and literature; there are no examples yet recovered from the archaeological record. Fringed garments in Roman society were not common; and when fringe did occur, it appeared on certain types of garments only.[1] This overview of fringes in Roman antiquity will argue that fringes on garments in the Roman world may have served an apotropaic purpose, *i.e.* the power to avert evil or bad luck.

A fringe is an ornamental appendage to the border of an item.[2] Today, fringe is a trim that is added to a finished textile; in antiquity, it was usually part of the garment and simply the warp end of weaving left unfinished. Where inlaid fringe did occur, wool, silk, linen or leather loops were stitched or inlaid in an S-shape on a woven garment and then the ends of both loops were cut (Fig. 11.1). If the fringe consisted of warp ends, they would need either to be knotted close to the weft or braided or twisted so that the whole garment would not unravel. If a garment was not fringed in the ancient world, it was usually finished off in a variety of other ways, for example by using a spiral warp; or with heading/starting and closing borders, a technique whereby the warp is looped through the border and thus requires no further finishing;[3] or by tying off the warp threads close to the edge of the garment before snipping off the ends. It does not appear that the warp ends were merely left long as a matter of course to save the effort in finishing the garment (*i.e.* on poorer-quality clothing) – or, at least, fringe is seldom visible in the iconographic evidence.

Fringe in ancient Egypt, the Near East and Greece

Fringe appears with some regularity on male garments in the visual sources of the ancient Near East (Fig. 11.2)[4] and scholars of the Near Eastern world have concluded that fringe on a garment signified a special high social status in a man. From the 9th century BCE onwards, fringe and tassels appears on depictions of the clothing of gods, kings and great warriors.[5] The fringes of a garment were considered to be an extension of the wearer's power and character and could even be used as a signature when pressed upon a document.[6] Much later, 'Matthew's mention [in the New Testament] that scribes and Pharisees wear their fringes long (Matt 23:5) is a stinging remark intended to underline their thirst for social recognition'.[7] There is also visual evidence that people wore garments with fringed edges in ancient Egypt, at least from the time of Thutmose II (*c.* 1490–1436 BCE);[8] and evidence for different coloured fringes on Egyptian garments.[9] Fringes (*tzitzit*) also have an important history in Jewish religion.[10]

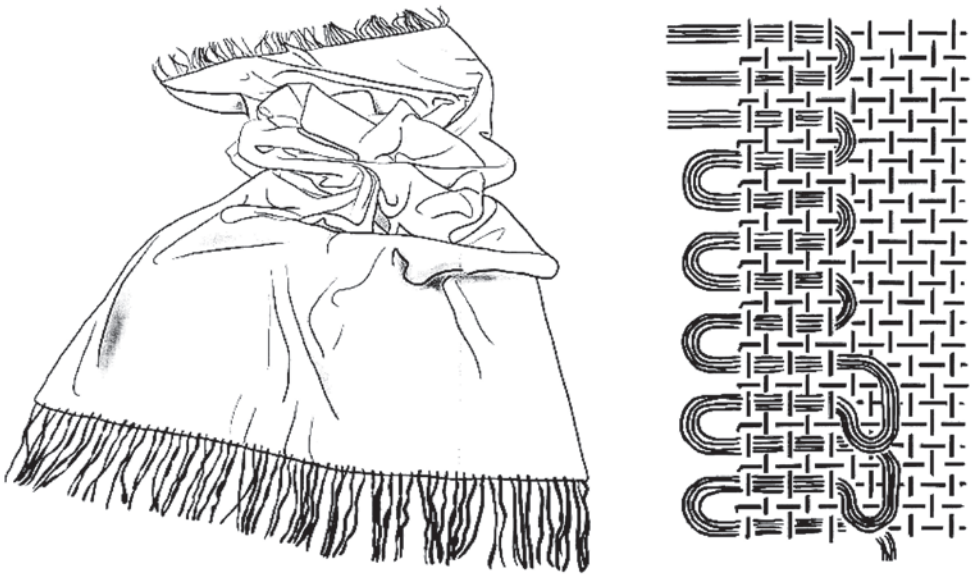

Fig. 11.1. Drawing of fringe (L) and inlaid fringe (R). After Barber (1991, 152 fig. 5.5). Artist: K. Olson-Lamari.

Fig. 11.2. Relief of Ashurnasirpal II, 883–859 BCE. Louvre, inv. no. AO 19851. Photo: Art Resource ART104860.

Fig. 11.3. 'Warrior Vase', 1200 BCE. Mycenean. National Museum, Athens, inv. no. 1426. Photo: Art Resource ART38200.

Fringes appear to a certain extent on Greek clothing: on the 'Warrior Vase' from Mycenae, Greece, *c*. 1200 BCE (LH IIIC, Fig. 11.3), soldiers march with fringed tunics.[11] But usually in the Greek world fringes were an exotic occurrence. Dandified young men in the late 5th century 'laconised' or used appearance to imitate the Spartans by sporting short, fringed cloaks made of rough cloth, long hair, beards and dirty hands.[12] And some luxurious items of Persian clothing, adopted by Athenians in the 5th century BCE for reasons of status, also had fringes: the long-sleeved *chiton* or *chitoniskos cheirodotos*, for example, the shape itself non-Greek, was sometimes finished off with fringe.[13] The *ependytes* was another Persian import, a shorter, sleeved, coat-like garment, worn by women and *parthenoi* (virgin girls) during some ritual activities, often embellished with fringe.[14]

Usually, then, the presence of fringes on a garment in ancient Greece or the Near East marked the garment out as sumptuous and the wearer as a person of some status.[15] This may be explained in part by the sheer inconvenience of fringes, familiar to anyone who has ever worn a fringed garment: long, delicate fringes get tangled, knotted, torn and all too easily caught on things. They are a lovely but impractical decoration. In addition, fringes have a graceful, even arresting, movement while the wearer is in motion – and this fact may have served to mark the wearer out as a person of importance.

Fringe as a fashion item in the Roman world

While fringe on blankets is mentioned by Varro, the elder Pliny and Celsus (and is sometimes seen on blankets in Roman iconography),[16] fringes do not seem to have been worn much on everyday clothing in the Roman world either by men or women.[17] Only three occurrences in ancient literature of a fringe being used as a fashion item for men are known to the author. Julius Caesar is described as being 'remarkably' (*cultu notabilem*) dressed in a broad-striped tunic with fringed, wrist-length sleeves,[18] a tunic made inappropriate by its long sleeves as much as by its fringe. The upstart fictional character Trimalchio has about his neck a napkin with a broad stripe and fringes hanging from it on all sides.[19] And finally, in the 4th century, Ammianus Marcellinus describes the Romans of his day in this manner:

> Other men, taking great pride in coaches higher than common and in ostentatious finery of apparel (*ambitioso vestium cultu*), sweat under heavy cloaks … and they lift them up with both hands and wave them with many gestures, especially with their left hands,[20] in order that the over-long

Fig. 11.4. A–B. Shroud of a woman wearing a fringed tunic (detail: Author), 170–200 CE. Metropolitan Museum of Art, New York, 09.181.8. Photo: Art Resource ART359710.

> fringes (*longiores fimbriae*) and the tunics, embroidered[21] with party-coloured threads in multiform figures of animals, may be conspicuous.[22]

The written sources imply that fringes were effeminate or somehow an inappropriate fashion for a man; probably because of their Near Eastern (that is, 'effeminate') origin; for the Romans, certain races were naturally *mollis* or soft.[23] Or perhaps the Romans did not favour fringes because certain religious groups (such as the Jewish people) did.

By contrast, Roman women never seem to appear in fringed wear as a fashion item in literature. The only reference to fringe comes from the scholiast on Juv. at 2.124, who wrongly described *segmenta* as 'fringes' (incorrectly, as *segmenta* are bands or borders on women's dress).[24] A linen shroud from Roman Egypt (Fig. 11.4) also exists which depicts a woman wearing a fringed/beaded tunic or undertunic, with an Egyptian god on either side of her. Her fringes may be part of her local dress; the Romans clearly seem to have associated fringes with the East (Fig. 11.5, a relief from Rome).[25] In a text likely dating to the late 4th century CE, the Eastern queen Zenobia is described at public assemblies in Palmyra arrayed gorgeously 'like a Roman emperor' in a purple-bordered garment with gems hanging down from the fringe.[26]

Fig. 11.5. Personification of a Roman province, probably Egypt. Marble bas-relief from the Temple of Hadrian, 145 CE. Palazzo Massimo, Rome. Photo: Art Resource ART372208.

Fringed cloaks in the Roman military

Fringe was also present on some Roman military cloaks. Sumner has observed that:

> a number of cloaks depicted both on Trajan's Column and elsewhere clearly have at least one edge that is fringed. It is not certain if this indicates any kind of status but it does appear to be associated with higher grade troops including cavalrymen … praetorians, and senior officers such as tribunes. Other sculpture and art works indicate that some cloaks could be further decorated with tassels[27] at the bottom corners.[28]

The scarlet *paludamentum* was the general's cloak; in iconography it is thickly fringed and pinned with a large circular brooch (Fig. 11.6, on a bronze statue of the emperor Augustus now in the National Archaeological Museum in Athens).[29] After the death of the emperor Commodus, the author of the *Historia Augusta* tells us that the sale of his clothes included 'curly' military cloaks (*cirratas militares*), possibly a reference to fringe.[30]

Fringes on Roman religious garments: *rica* and *ricinium*[31]

Outside military wear, fringe was most often employed by the Romans as trim on religious garments. A few sources speak of women wearing a fringed garment in the context of ritual. The *rica* seems to have been a small cloak (how small is unclear, but small enough to drape over the head – perhaps like a handkerchief). Festus and Paul. ex Fest. state the *rica* was a four-sided garment (*vestimentum quadratum*) and that it was fringed.[32] Festus also states that the *rica* and the *ricula*[33] are 'little *ricinia*', little *pallia* women use for covering the head, and which *flaminicae* (wives of Roman priests) wear in place of *vittae*.[34] Festus then goes on to assert that 'others say that it is made from fresh white wool, that virgins make [it], virgins who are freeborn citizens with fathers and mothers still alive, and that it is dyed with a blue colour'.[35] Varro seems to equate it with a garment for use in sacrificing; in other authors *rica* seems to have been employed as a synonym for 'mantle' or even 'veil'.[36] The *rica* was thus a small fringed female garment, sometimes associated with ritual activity and with *flaminicae*.

Another cloak, the *ricinium*, is known about only from literary sources.[37] Festus defines the *ricinium* as a four-sided ancient garment in general use (*omne vestimentum quadratum*), says that it may be made *praetexta* with a purple stripe (*praetextam clavo purpureo*; the *toga praetexta* is a *toga* so bordered) and further defines it as a 'man's *toga*'(?) used by women.[38] Varro also names the *ricinium* as a garment of the greatest antiquity (*antiquissimi amictui ricinium*); and Servius describes the *ricinium* as a garment originally for women.[39] Festus considers the *ricinium* almost a generic term for any four-sided mantle and then goes on to mention it in relation to mime-dancers.[40] Sometimes the *ricinium* is described as '*duplex*',[41] a term which continues to puzzle modern commentators. Varro stated that women wore it 'double-folded' (*duplex*, probably meaning having a double layer of cloth) and 'half thrown back'.[42] Isidore (following Servius and Varro?) states 'likewise also the *ricinium* is so called by that Latin name because a doubled part of it is "thrown back", which vulgarly they call the *mafurtium*'.[43]

Some ancient authors mention the *ricinium* as a cloak of mourning for women, although for what purposes and for how long they adopted it is unclear. Varro tells us women don it when they are mourning[44] and also that, while the corpse is above ground, women mourn in *ricinia*; but that, at the funeral itself, they are wrapped in dark *pallae*.[45] Cicero mentions the number of *ricinia* allowed at funerals in the XII Tables.[46] Based on these references, several modern authors identify the *ricinium* as the distinctive mantle of the widow and state that it has a fringed border. As a result, the woman at the juncture of the third and fourth panels of the north frieze of the Ara Pacis in Rome (Fig. 11.7) has been identified by some as Augustus' daughter Julia, the widow of Agrippa, because she wears this mantle. Kleiner states that 'the fringed shawl or *ricinium* of a widow is draped across her left shoulder … Julia is represented in widow's garb, which alludes to Agrippa's death in 12 BC'. A woman in the second group of the north frieze (Fig. 11.7, also from Rome) is also wearing a fringed mantle, identified as a *ricinium*, 'indicating that she is a widow'. She again has been variously identified by virtue of this mantle.[47] As we have seen, however, the literary sources do not describe the mourning mantle or *ricinium* as fringed. It is not without significance that the only two women in fringed cloaks appear together, in the north frieze, along with a young boy who also wears a fringed cloak (he is possibly a *camillus*, a religious attendant).

A number of points are worth noting at this stage: the *ricinium* is not described as fringed in the literature; the *ricinium* is not associated with formal religious ritual (such as sacrifices or worship); and in the literary sources it is portrayed as a female garment. In addition, the garment which *is* described as fringed and *is* associated with ritual in the literary sources is the smaller *rica*, also a strictly female garment. Although Festus does indeed state 'the *rica* is a little *ricinium*', modern authors are wrong to assume from this that both mantles were fringed: ancient literature names *no* mantle as fringed except the (small) *rica*.

The Arval Brethren or *Fratres Arvales* were a company of twelve priests who originally offered sacrifices for the fertility of the fields. Were it not for the inscriptions featuring the Arval Brethren, all the above statements might be

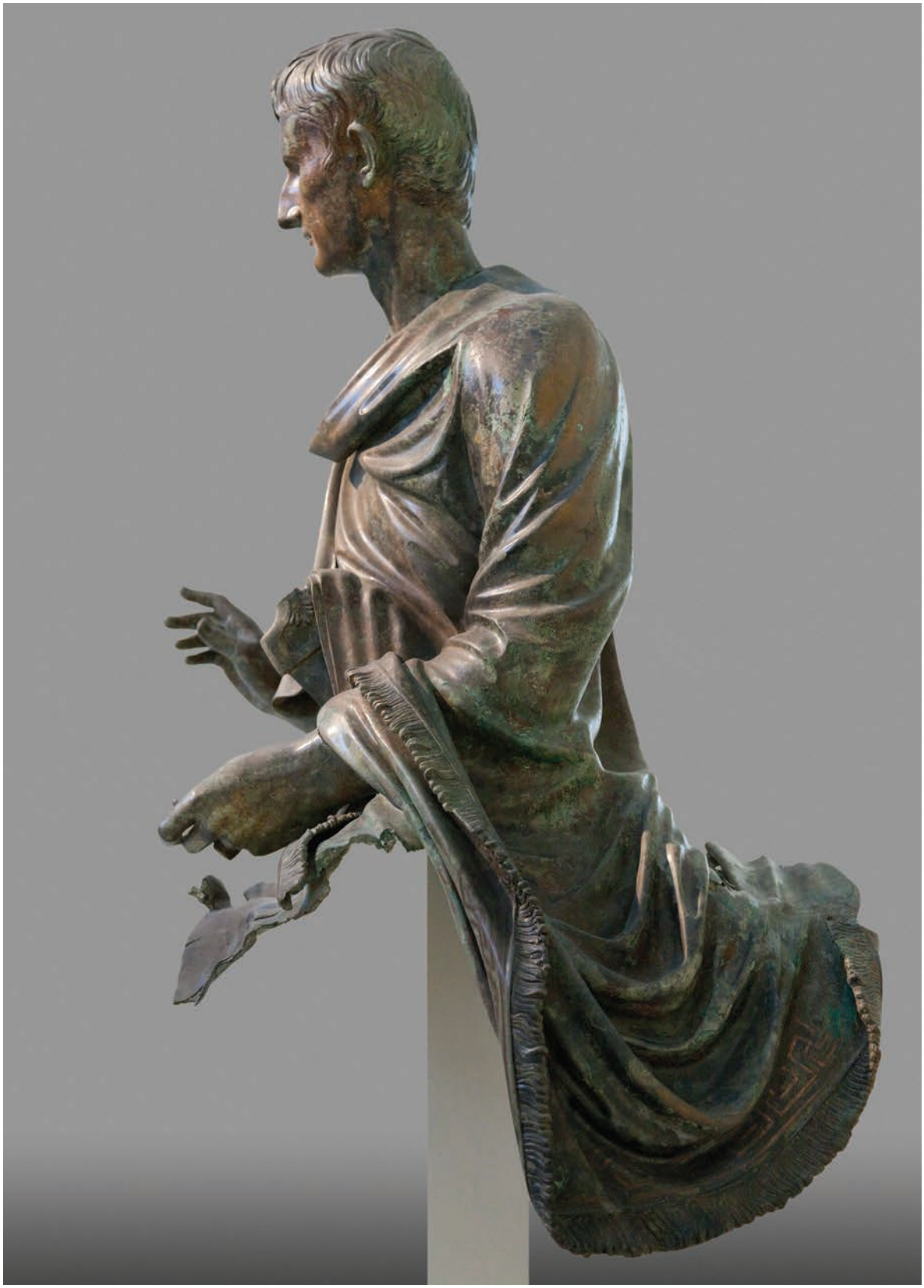

Fig. 11.6. Augustus wearing a fringed paludamentum*, 12–10 BCE. Found in the Aegean Sea between the islands of Euboea and Agios Efstratios. National Museum, Athens, inv. no. 23322. Photo: Art Resource ART404856.*

Fig. 11.7. Panel of the north frieze, Ara Pacis Augustae, 13 BCE. Louvre, Paris, inv. no. Cp 6468. Photo: author.

Fig. 11.8. Etruscan bronze figure of a haruspex *wearing a fringed cloak, 4th century BCE. Vatican Museums, cat. 12040. Photo: DAI arachne.dainst.org/entity/1080305.*

assumed to be correct. But, in the Arval *acta*, the priests' inscribed protocols from Rome, boys functioning as their attendants are described as *riciniati* and *praetextati* (*i.e.* wearing the *ricinium* and the purple-bordered *toga* of the citizen boy) across a wide chronological period.[48] And it is also noteworthy that in several of the inscriptions it is the *promagister* (or vice-master of the priests) who wears the *ricinium*: he is described as *riciniatus et soleatus* (wearing the *ricinium* and sandals).[49]

Fringe can be seen on some garments in Roman artistic depictions of ritual despite literary references to ritual fringed garments for men being non-existent. The earliest appearance of fringe can be found on some Etruscan statuettes of priests such as the small *haruspex* (Fig. 11.8).[50] Fringe appears on the cloaks of men and boys who (probably) have a religious function on the reliefs of the Ara Pacis (Fig. 11.9 and 11.10, as above), on one of the west panels of the same monument (that of Aeneas sacrificing)[51] and on the smaller Cancellaria reliefs (the so-called Vicomagistri relief from Rome, 14–37 CE; Fig. 11.10).[52] These figures often carry incense boxes or statues of the Lares and clearly have a ritual function.

Pollini and others[53] have tentatively identified the figures on the smaller Cancellaria relief as the boys of the *Acta*, who are *riciniati et praetextati*.[54] The boys in the relief, however, wear fringed mantles and ungirded tunics (not *togae praetextae* as the inscriptions state) – as do most boys

Fig. 11.9. Photo of north frieze, Ara Pacis Augustae, Rome, 13 BCE. Museo dell-Ara Pacis, Rome. Photo: Art Resource alb1462877.

Fig. 11.10. Altar of the Vicomagistri (smaller Cancellaria relief), 14–37 CE. Vatican Museums, Rome, inv. no. 1156-7. Photo: Art Resource ART359170.

wearing fringed mantles in other depictions of Roman ritual.[55] Although this type of mantle is known to appear on youths in depictions of ritual, there is no name found for it in the literary sources; and nor is it known what the *ricinium* looked like. The *ricinia* of the Arval inscriptions may, therefore, have been fringed mantles but they could also have been doubled, short, decorated or coloured in some fashion. The *ricinium* of literature and epigraph is not necessarily the fringed mantle of Roman iconography.

One final puzzle: why does any Roman garment at all have fringe, given that fringe as a fashion item was regarded as something to be avoided? Perhaps the fringe was in some way apotropaic, *i.e.* intended to guard the wearer against ill-chance, accident or the Evil Eye.[56] Much like the shifting *oscilla* in Roman gardens,[57] tinkling *tintinnabula* in houses,[58] music in temples[59] and bouncing phallic amulets,[60] the movement of fringe may have been intended to distract demons and bearers of the Evil Eye from their intended target. The fact that fringe is not usually a fashion item but instead appears on military wear and on ritual garments (at least in Roman iconography, whether or not the mantle depicted is in fact a *ricinium*) supports the view that this might be the reason behind ornamenting a garment with fringes. Priests and generals might need additional protection from misfortune and accident; a case has indeed been made recently that rosettes and tassels on Jewish clothing in the Hebrew Bible serve an apotropaic purpose.[61]

Conclusions

Fringe as a fashion item for men seems to have been frowned upon, perhaps because of its Near Eastern (and therefore 'effeminate') connotations; it is not mentioned at all as a fashion item for women. In Latin literature and in Roman iconography, fringe is seen on blankets, on some religious garments and on some high-status military cloaks. It might simply have been intended to signal high status: holders of religious office and military generals were necessarily of the elite classes and, perhaps, the presence of fringe on their garments reflects this. But the wearers of such garments

also needed extra protection from invidious persons and demons, and this is something that an apotropaic fringe might have offered.

Notes

1 Little has been published on ancient fringes, but see Hildebrandt and Demant (2018, 201–202). In the medieval period fringe was used mainly for ecclesiastical garments and was a rare ornament for lay dress before the 15th century (Cumming *et al.* 2010, 86).
2 On the technology of fringe, see Barber (1991, 151–154, 274).
3 Granger-Taylor (1987, 115–116); Barber (1991, 115–116, 134–137).
4 Barber (1991, 146–147); Cleland *et al.* (2007, 74–75).
5 Bertman (1961, 128).
6 Horn Prouser (1996, 27); Spoelstra (2019, 82, with references in n. 121).
7 Batten (2010, 155).
8 Bertman (1961, 121–122).
9 Barber (1991, 224).
10 Silverman (2013, 138–142); Spoelstra (2019).
11 Now in the National Archaeological Museum, Athens, inv. no. 1426. On this vase and similar iconography, see Kelder (2010, 40–43).
12 Ar. *Wasps* 474–476; Plato *Prot.* 342; Demos. 54.34; Geddes (1987, 309).
13 On the *chitoniskos cheirodotos*, see Miller (1997, 156–165, 179–180); Lee (2015, 110–111, 113, 118).
14 Miller (1989; 1997, 170–183); Lee (2015, 123–124, 126). See the woman in a fringed *ependytes* on an Attic red-figure volute *krater*, *c*. 430 BCE, in the Museo Archeological Nazionale di Spina, inv. no. 44894 (Art Resource ART465030); Miller (1997, fig. 68).
15 Miller (1997, 159); see also Lee (2015, 95).
16 Varro *L*. 5.79. Pliny *Nat*. 7.171. Celsus 2.6.6. Roman art: see the fragment of an equestrian statue now on display in the Coliseum, Rome (unlabelled): https://www.roundtheworldmagazine.com/inside-the-colosseum/horse-statue-roman-colosseum-rome-italy/ (accessed 25 September 2021). See also the architectural relief of an elephant wearing a fringed blanket in the Getty Villa (80–100 CE), Roman. Italian marble, inv. no. 71.AA.463.1.
17 'Fimbria' was, of course, also a Roman cognomen, found in the family of the Flavii; for instance, G. Flavius Fimbria (*BNP* Flavius I5).
18 *usum enim lato clavo ad manus fimbriato*; Suet. *Iul.* 45.3.
19 *laticlaviam immiserat mappam fimbriis hinc atque illinc pendentibus*; Petr. *Satyr.* 32.
20 Their left hands may be covered with rings (?).
21 On embroidery in the ancient world, see Wace (1948); Barber (1991, 197–200, 320–321); and now Droß-Krüpe and Paetz gen. Schieck (2015, with references).
22 Amm. Marc. 14.6.9.
23 On Roman notions of Near Eastern and Asian effeminacy, see Cic. *Mur.* 31; Virg. *Aen.* 4.215–217, 9.598–620, 12.97–100; Val. Max. 2.6.1, 9.1.ext.7. On Greek effeminacy, see Olson (2017, 164 n. 124, with references). On Persian effeminacy, see Makhlaiuk (2015, 312–315); Eastern effeminacy, Williams (2010, 148–151).
24 *fimbriatae sive vittatae vestes.* Juv. 2.124 reads: *segmenta et longos habitus et flammea sumit* ('he's wearing the bride's *segmenta*, long dress, and veil'). Scholia: see Iahn (1851, 173–385); Wessner (1931). On *segmenta*, see Olson (2008, 30–31, with references).
25 When Pliny writes about the magnetic properties of amber, he states that in Syria the women make whorls of it and call it '*harpax*', or 'the snatcher', because it picks up leaves, straws and the 'fringes of garments' (*vestium fimbrias rapiat; Nat.* 37.37). Apuleius describes the cloak of the goddess Isis at *Met.* 11.3 as dark wrap with 'a knotted fringe at the lower edge'.
26 '*Romanorum ad contiones galeata processit cum limbo purpureo gemmis dependentibus per ultimam fimbriam;'* HA *Tyr Trig.* 30.14.
27 On tassels on Roman clothing, see Hildebrandt and Demant (2018, especially nn. 3 and 16).
28 Sumner (2009, 83).
29 On the *paludamentum*, see Wilson (1938, 100–104); Heskel (1994, 134); Sumner (2009, 72); Olson (2017, 77, 78–79 with references).
30 *HA* Pert. 8.2–4.
31 For a more detailed treatment of the *rica* and *ricinium*, see Olson (2004–2005, 117–123).
32 Fest. 368L; Paul ex. Fest. 369L: *rica est vestimentum quadratum, fimbriatum, purpureum, quo flaminicae pro palliolo utebantur.*
33 *Ricula*: see Turp. *Comm.* 74 (*aspexit virginem … in capite … indutam riculam*).
34 *ricae et riculae vocantur parva ricinia, ut palliola ad usum capitis facta. Gran<ius> quidem ait esse muliebre cingulum capitis, quo pro vitta flaminica redimiatur*; Fest. 342L.
35 Fest. 368L, Paul. ex Fest. 369L: *alii dicunt, quod ex lana fiat sucida alba, quod conficiunt virgines ingenuae, patrimae, matrimae, cives, et inficiatur caeruleo colore.*
36 See for example Non. 865L; Varro in Non. 866L; Gellius *NA* 7.10.4.
37 In addition to the references here, see also Non. 880L (in which the garment [*ricinum*] is mentioned in a list by Novius).
38 *esse dixerunt ‡vir toga‡ mulieres utebantur*; Fest. 342L.
39 Var *L.* 5.132; Ser. *ad Aen*. 1.282.
40 *omne vestimentum quadratum … unde reciniati mimi planipedes*; Fest. 342L.
41 Var. *L*. 5.132.
42 This part of the definition is probably due to a false etymology, possibly from *reicio*; see also Serv. *ad Aen*. 1.282.
43 Isid. *Orig*. 19.25.4: *idem et ricinium Latino nomine appellatum eo quod dimidia eius pars retro reicitur; quod vulgo mavortem dicunt. Vocatum autem mavortem quasi Martem; signum enim maritalis dignitatis et potestatis in eo est.* On the *mafurtium*, see Olson (2008, 54), with references. In Servius *Aen*. 4.262, the *togas* that the *flamines* and augurs wear are *duplex*: perhaps the double layer of wool had a religious significance. See Olson (2021).
44 Non. 869L.

45 Non. 882L. Interestingly, this statement assumes the *ricinium* and the *palla* were different in some way.
46 Cic. *de Leg*. 2.59.
47 Kleiner (1993, 33, 49 n. 23).
48 Corpus Inscriptionum Latinarum (CIL); *CIL* 6.02067a, 6.2068, 6.2075, 6.2078, 6.2080, 6.2086, 6.2087, 6.2099, 6.2101, 6.32396. On these inscriptions, see Beard (1985) for some helpful comments and a translation. Pollini (2012, 321) describes the *ricninium* as a 'fringed religious shawl'.
49 *CIL* 6.2067a; 6.2068, 6.2075, 6.2078, 6.2080, 6.2086, 6.2099. Commentarii fratrum Arvalium (CFA); CFA 00065 = AE 1964, 00069a, 6.2104. In addition, the Arval Brethren had the right to assume the *toga praetexta* when they performed their religious duties, and sometimes the Brethren appear in the inscriptions as *praetextati*: *CIL* 6.2067a, 6.2068, 6.2075, 6.2078, 6.2080, 6.2086, 6.2099, 6.2104.
50 A *haruspex* was a priest who interpreted omens in the entrails of sacrificial animals.
51 On depiction of religious ritual on the Ara Pacis, see Ryberg (1955, 38–48); Koeppel (1985); Elsner (1991); Billows (1993).
52 On these reliefs, see Ryberg (1955, 75–80); Pollini (2012, 309–368).
53 On *riciniati*, see Fless (1995, 53); Pollini (2012, 321–328).
54 Fless (1995, 53); Pollini (2012, 322).
55 Pollini (2012, 322) assumes that as the boys in the smaller Cancellaria relief wear no togas, the *praetextatae* the youths wear in the *Acta* refer to a garment called a '*tunica praetexta*', citing as his evidence Livy 22.46.6 (here, Spanish troops commanded by the Carthaginians wear linen tunics bordered in purple: *Hispani linteis praetextis purpura tunicis candore miro fulgentibus constiterant*). However, when the Romans referred to youth in the broad-striped tunic, they used the term *laticlavi* (see for example Suet. *Aug*. 38.2, 94.10). On the *latus clavus*, see Olson (2017, 19, with references).
56 Thanks to A. Batten for this suggestion (pers. comm., 9 July 2019). On the Evil Eye, see Clarke (2007, 63–81); Elliot (2016). On apotropaism in religious practice, see Spoelstra (2019, n. 9) (Judaism); Morgan (2018, 39) (late antiquity); Elliot (2017) (post-biblical Israel and early Christianity).
57 An *oscillum* was a decorative plaque hung in a Roman garden in such a way that it shifted with the wind. On *oscilla* and the Evil Eye, see most recently Wilk (2014).
58 A *tintinnabulum* was a wind-chime. See Johns (1982, 67–68).
59 On apotropaic music, see Perrot (2016).
60 See Whitmore (2017, 59) on *fascina*: 'since visibility is relevant to the amulet's function, the constant motion of these pendants … darting in and out of clothing folds, would capture the attention of those already staring, successfully averting the evil eye'.
61 See Spoelstra (2019).

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Chapter 12

Between realism and artistic convention: Woollen mantles in the iconography of Roman Palmyra

Marta Żuchowska

Abstract

Palmyra is one of the rare archaeological sites dated to the Roman period where abundant organic materials have survived, including a substantial group of fabrics. Among them, fragments of over 500 textiles have been documented, all dated to the period between the end of the 1st century BCE and the 3rd century CE. Archaeological research in Palmyra has also brought to light numerous contemporary representations, mostly funerary sculpture but also some wall-paintings, which illustrate a wide spectrum of the clothing and fabrics worn by the Palmyrenes. Some of the most commonly represented items of clothing on the sculptures are woollen mantles, which are chosen as a case study in this paper. The analysis of archaeological and iconographic material from Palmyra provides a unique opportunity to assess the extent to which the artistic vision of the Palmyrene sculptors corresponds to reality.[1]

Introduction

Textiles are rarely preserved in the archaeological record due to their extreme fragility and susceptibility to environmental conditions. Most of the knowledge about ancient clothing therefore comes from iconographic material rather than from the original ancient fabrics themselves. Palmyra is one of the rare archaeological sites where archaeological textiles are preserved in abundance and where the state of their preservation is good enough to allow for in-depth investigation. Rudolf Pfister published a large part of the information about the textiles before the Second World War.[2] New scientific analyses of the finds, old as well as new, were performed by a Syro-German team and published in a spectacular volume by Andreas Schmidt-Colinet, Annemarie Stauffer and Khaled al As'ad in 2000.[3] Some objects have also been analysed by Jerzy Maik.[4] Among the preserved finds, numerous examples of both patterned and unpatterned linens, wools, silks and cottons were recovered. Together these reveal a fascinating spectrum of locally made and imported fabrics used for clothing in ancient Palmyra. Only in a few cases do the preserved fabrics allow us to determine the original shape and type of garment.

Palmyra holds a special importance for any research into ancient clothing because the site also has an abundance of funerary sculpture – portraits representing the citizens of Palmyra. Of these, two main kinds predominate: reliefs on the slabs closing the *loculi* and the banquet scenes on elaborate sarcophagi covers. According to the reports on the work from the Palmyra Portrait Project, recently carried out under the direction of Rubina Raja, over 3,700 examples of funerary portraits had been documented in Palmyra, and in museum collections around the world, before the recent disastrous events in Syria caused a large destruction of the Palmyrene sculpture.[5]

Taken together, the fragments of preserved textiles and the funerary sculpture with their representation of preserved clothing provide a unique resource to interpret and analyse the typical dress in the region. These sources, however, can have their limitations: they both relate to the funerary rites and, as such, may not fully correspond to the everyday clothing worn by Palmyra's citizens. Nevertheless,

Fig. 12.1. Palmyrene garments most frequently represented on funerary portraits: A. Man wearing a tunic and himation*, funerary portrait from the collection of Louvre, inv. no. AO2068. Second half of the 2nd century CE. Photo: R. Żukowski; B. Woman wearing a tunic,* himation *fastened with a circular brooch on the left shoulder, headdress and veil. Louvre, inv. no. AO1575. 3rd century CE. Photo: R. Żukowski.*

they provide significant information about the textiles used and worn in Palmyra.

Cloaks or mantles are among the most commonly represented types of Palmyrene garment and different styles can be recognised on the funerary reliefs (Fig. 12.1). Some types of cloaks can be recognised among the archaeological material found in the Palmyrene graves, giving us an opportunity to compare data coming from these two types of sources.

Palmyrene funerary sculpture

The earliest funerary reliefs were the stelae. These were simple small stone slabs, rounded on the top and representing the whole figure of the deceased; they were erected on the earthen graves and understood to be *nephesh* – an incarnation of the soul of the tomb occupant.[6] Only a small number of such objects have been found to date. Characterised by their rough style and lack of details, the analysis of these stelae adds little to research into ancient fabrics and clothing.

A new style of funerary art emerged from the first century CE with the development of monumental tombs.[7] At Palmyra, the earliest examples of the monumental funerary architecture are the tower-tombs unique to the site. The earliest dates to the year 9 BCE and the last to be built to 128 CE.[8] Inside these multi-storey buildings the deceased members of the big families or clans were buried in superimposed *loculi* closed by rectangular slabs. These slabs were decorated with the image of the dead, often accompanied by a short Aramaic inscription recording his or her name and the names of his or her predecessors, sometimes with the date of the death. Shortly after, along with tower-tombs, large hypogea began to be constructed on the *necropoleis* surrounding the city. The system of *loculi* was also used in these tombs while richly decorated sarcophagi with funerary banquet scenes on their covers were located in some places along the walls and especially at the niches closing off the corridors. Temple-tombs, the final type of monumental funerary architecture, became popular especially during the 3rd century CE. The walls

and covers of sarcophagi in these elaborate mausolea were abundant with funerary reliefs.

The *loculi* slabs were typically square or rectangular in shape and portrayed the torsos of the grave occupants from the mid-waist level upwards. They were similar for men and women and sometimes represented the deceased accompanied by a spouse or children who were placed above the shoulder of the main figure. Rarely did the reliefs represent a couple. Another type of funerary representation was the banquet scene showing the deceased reclining on a couch instead of as a simple bust. This type of representation was usually used to decorate the sarcophagi covers. The banquet scenes show the most prominent citizens, almost exclusively male,[9] reclining on the mattresses in the banqueting position and often holding libation accessories such as a bottle and *kylix* or *phiale*. The main figure is usually surrounded by the family members, represented on a smaller scale and standing or sitting behind and close to the feet of the lying man.

The Palmyrene portraits come from all types of graves. Many are now found in museum collections around the world, are of unknown origin and cannot be linked back to individual tombs. The textiles, by contrast, were found only in the tower-tombs and come from just seven of these: the tomb of Atenatan (tower-tomb no. 7, dated to 9 BCE); the tomb of Kitot (tower-tomb no. 44, dated to 40 CE); the tomb of Iambliq (tower-tomb no. 51, dated to 83 CE); the tomb of Elahbel (tower-tomb no. 13, dated to 103 CE); and three tombs of unknown date (tower-tombs nos 46, 65 and 69).[10] Unfortunately, however, all the tombs were plundered long before the first archaeological excavations in Palmyra and their contents mixed up and largely destroyed. Moreover, the large tombs – *hypogea*, funerary towers or so-called 'temple-tombs' – usually belonged to wealthy families or clans and were used for generations and therefore contained dozens or even hundreds of individual burials. As a result, even though both textiles and funerary sculpture were recovered from the same tombs, indicating that the fabrics belonged to the people represented in the sculptures, it is impossible to make any direct connections between the iconography, the bodies and the garments.

Despite these limitations, the remarkable assemblage of archaeological textiles and their iconographic representations in funerary sculpture, when taken together as a whole, provide a unique opportunity to analyse the ancient clothing of the people of Palmyra. The data from both types of sources form two clusters which partially overlap, and in most cases supplement, each other, offering the chance to build a much more complex picture than would usually be possible from the study of one category of artefacts alone. The analysis of these textiles with their iconography makes it possible to test some hypotheses and to interpret the images more accurately, revealing those aspects where artistic convention took precedence over the realism of the representational art.

Palmyrene clothing

Palmyrene clothing, as represented in the iconography, reflects the syncretism which can be seen in almost all spheres of Palmyrene culture. Both oriental and western influences are evident in the local dress style, together with some unique local features.

Palmyrene male dress was quite varied. Rare but distinctive sculptures, mostly honorific, portray Palmyrene citizens wearing the official Roman *toga.* Numerous representations show Palmyrene men also in the Greek dress composed of a tunic and a large rectangular cloak (*himation*). Finally, popular among Palmyrenes was the Parthian dress: a mid-knee tunic, tied at the waist; long, loose pants; and ankle-length shoes made probably of embroidered leather or fabric. This type of garment was sometimes worn with a short cloak fastened with a brooch on the shoulder in the style of the Greek *chlamys*, but in many cases it was accompanied with a *himation*, wrapped around the body. The Parthian-style dress was clearly popular in Palmyra from the earliest times and probably constituted the garment worn by the elites. The inscriptions accompanying the funerary reliefs, together with iconographic details such as the so-called *modius* (a characteristic cylindrical hat, brimless and with a flat top, which in Palmyrene iconography symbolised the priestly profession), allow many of those wearing this type of dress to be identified as priests.[11] It is also the style used routinely in religious iconography to represent the dress of gods, though it is then usually accompanied by the cuirass.[12] An analysis of the Palmyrene funerary sculpture shows that men often wear one of three types of cloaks: *toga*, *himation* or *chlamys*. Each of these refers to a different cultural sphere, social position, profession and, perhaps, value system.

Female dress was usually composed of three elements: a tunic, a mantle made of a rectangular piece of fabric (*himation*) and a veil covering the body from head to feet. On funerary portraits women are usually represented wearing a simple, undecorated tunic in the Greek style (*chiton*) with a *himation* wrapped around the body and fastened on the left shoulder with a *fibula*, or round brooch, and covering the head, shoulders and arms with a veil. Relatively less frequent are representations of women in tunics or long-sleeved dresses decorated with patterned bands on the chest and on the sleeves, and sometimes also with fringes around the wrists. This type of dress was usually worn with a *himation* and veil. Rare representations show women bare-headed, with a large mantle (a *himation* or veil) wrapped around their shoulders and chest. Although some inscriptions mention women as founders of altars and as making offerings to

the gods, or as buyers and sellers of the funerary spaces in the underground tombs, the funerary inscriptions are usually restricted to the names of the portrayed women, their father's names and, sometimes, information about their marital status.[13] It is therefore difficult to decide whether their style of wearing the mantle refers to their social position and function in Palmyrene society or is simply a variation in local customs.

Toga, himation, chlamys and veil

Toga

The *toga* was the national Roman outfit worn for public occasions. Vergil was already describing the Romans *gens togata* ('people wearing *togas*') in the 1st century BCE[14] and over the next few centuries the *toga* was one of the most significant symbols of Roman identity. It was also one of the important signs of Romanisation in the conquered provinces. Describing the *toga* is generally problematic, however, because no fabric has yet been found in the archaeological evidence that can be identified with this type of garment. Instead, its features have to be established using iconographic and literary sources.[15] There were many types of *togas* mentioned by the ancient authors; and the style and the method of draping the cloth, as can be seen from the iconography, changed over time. In the absence of specific evidence, it is assumed that the *toga* consisted of a large piece of fabric, probably semi-circular or nearly so in shape, which was draped without the use of any fastening.

The Roman *toga* does not appear to have been commonly worn in Palmyra. This is unsurprising given that it was seldom used in the other eastern Roman provinces or even in Rome itself during the late principate. In the late imperial period particularly, the *toga* developed into an official garment regarded as being impractical for everyday wear.[16] Representations of Palmyrenes wearing a *toga* are rare and mostly dated to the 3rd century, by which time the privileges of the provincial cities had improved and the political importance of Palmyra within the Empire had increased considerably.[17] These geopolitical conditions might well have led to a growing (but transient) sympathy for Roman values and a short-lasting identification of the elite class with Roman citizens, reflected in the *toga* appearing as part of the official Roman dress. However, the scarceness of such representations in Palmyrene art, and the generally minor influence of Roman culture on clothing styles in the Eastern provinces, suggest that there must have been a more fundamental explanation as to why certain members of Palmyrene society chose to be represented wearing a *toga*, especially in funerary contexts.

Only a few such representations survive. Among them are two funerary statues of unknown context, both dated to the 3rd century CE. One of them was placed, probably in modern times, on the console of a column in section A of the Great Colonnade, the main artery of the ancient city; another was stored in the old depot of the Museum at Palmyra. The statue from the Great Colonnade depicted a priest, identified by the *modius*.[18] There are also some examples of *togas* represented in funerary reliefs, the most spectacular being the so-called sarcophagus B from the collection of the Museum at Palmyra. In this, the deceased, wearing a *toga*, appears on the front wall of the sarcophagus chest in a scene of sacrifice, while on its cover he is represented reclining in a banquet scene and wearing richly decorated Parthian garment.[19]

In the eastern, unlike the western, provinces, the *toga* was not a requirement for public duties. Instead, the Greek *himation* was typically worn by those who performed at official functions.[20] In her recent publication, Ursula Rothe observed that most of the examples of men in *togas* in Palmyrene funerary reliefs concern the priests and are associated with cult activities. She suggests that in Palmyra, the Roman outfit was used only to carry out the imperial cult, which was most probably performed only as a secondary function by the priests of one of the local gods.[21]

Himation

The *himation* (a rectangular textile wrapped around the upper body and normally thrown over the left shoulder) was a typical Greek garment, worn from the Archaic period up to Hellenistic and Roman times. In classical Greece, it was worn by both men and women over a *chiton.* In female attire it was often used as a veil, as can be seen from the vase paintings. Its use spread out from Greece to the Hellenistic East and became the accepted male dress for public occasions, a practice which extended into Roman times.[22] The *himation* was a rectangular piece of fabric, usually woollen, and was less voluminous than the *toga*. It is worth noting that even the native Romans considered the *toga* too heavy and impractical for everyday activities. For less official occasions, the Romans began to wear the *himation*, which they called *pallium*. Tertullian wrote of his knowledge of this garment as being Greek in origin though now given a Roman name.[23] The *pallium* could be made of various fibres, such as linen, wool or even silk, dyed in bright colours and often decorated. In the Eastern provinces, the *himation* was introduced before the Roman conquest and the Palmyrene garment of this kind is referred to as *himation* rather than *pallium*.

The *himation* seems to have been the most popular type of cloak worn by the Palmyrenes. Both Palmyrene men and women were portrayed wearing this type of garment, though with different styles of draping. Men wore the *himation* wrapped around the body, without any fastening. The overwhelming majority of male representations on the slabs closing the *loculi* show them in *himatia* without any decoration or ornaments and all worn in the same

manner – wrapped around the right arm and slung over the left shoulder. Interestingly, some banquet scenes featuring the deceased show men wearing Iranian dress together with the *himation* which covers their hips and thigh. Women usually wore their mantles wrapped around the body, passing under the right arm and pinned on the left shoulder, often with a decorative brooch.

Its popularity in Palmyrene iconography suggests that the *himation* was commonly worn by different classes of society and had no relation to particular professions, unlike the *toga*, and perhaps the *chlamys.* So far, the only type of mantle identified from the archaeological material has been the *himation*. As a result, its analysis provides the most informative data about the links between the original clothing worn by Palmyrenes and its iconographic representation.

Chlamys

The *chlamys* (a short cloak) was another Greek garment; it was worn only by men and usually associated with messengers and soldiers. Hermes was represented wearing the *chlamys*. Like the *himation*, it was to be found in both Hellenistic and Roman dress but always associated with a military context. In classical Greece, the *chlamys*, as represented on the black- and red-figure vase paintings, seems to have consisted of a square or rectangular piece of fabric. At some stage during the Hellenistic and Roman period this developed into a more elaborate form: although still four-cornered, its lower edge now had a circular shape while the side edges were cut diagonally. Such a shape is noted by many ancient authors, including Ptolemy of Ascalon, Plutarch and Pliny the Elder.[24] In contrast to the *himation* and *toga*, the *chlamys* was fastened with a *fibula* (dress-pin), usually on the right shoulder, leaving the right hand free. A similar type of mantle formed part of the Parthian military costume. Leaving the right arm free made it easier to use the sword and to throw back the material to facilitate movement. A cloak fastened on the right shoulder called *paludamentum* was also a part of the Roman military commanders' outfit. It is difficult to determine whether this type of mantle in Palmyrene costume originated from western or oriental tradition. The fact that it is usually accompanied by elements of Iranian dress, tunic and trousers, may suggest an eastern origin. However, in Palmyrene iconography, the Iranian costume is sometimes combined with a *himation*, making such an argument not completely convincing.

The *chlamys* can be easily identified on many Palmyrene reliefs: representations of gods wearing Parthian dress and a cuirass as well as cavalrymen. In funerary art this type of cloak is often worn by men who are holding a sword. One example of this is the funerary portrait of Šalmallat, son of Maliku, from the hypogeum of Šalmallat in Palmyra.[25] The representation of a deceased person wearing such a garment might refer to his war prowess, his position in the army or simply have been used to emphasise his military skills. This type of mantle might also have been a part of the dress code used in Palmyrene funerary reliefs to signify that the deceased had been a brave man and, perhaps, a good soldier.

Although the association of the *chlamys* with a military context seems to flow naturally from the evidence, the garment was also found in other settings. It was, for example, a part of the uniform of the priests represented on the *loculi* slabs. In the banquet scenes, the priests are usually shown dressed in the Parthian style with an accompanying *chlamys* or *himation.* In their study of the male costume represented on the Palmyrene funerary reliefs, Maura Heyn and Rubina Raja focused on the elaborate brooches used to fasten the *chlamys* on the right arm. Their study shows that this type of jewellery, though closely associated with representations of priests, only appears in about a third of their portraits. The authors suggest that these brooches might have been a symbol of the high social status of the elite families from which the priests came. This is a plausible hypothesis. However, this jewellery might also have been part of a complex iconographic code: the short mantle fastened on the right arm was often combined with Iranian costume most clearly identifiable by the distinctive nature of the trousers; this characteristic would not have been easy to recognise on the funerary busts where the lower part of the body is not shown. It is possible, therefore, that a mantle with a brooch became a typical iconographic way of representing priests on the *loculi* slabs – and one designed, moreover, to emphasise the oriental (or local) character of the entire garment.

Veil

A veil, by definition, is a headdress rather than a mantle. Nevertheless, it is included in this research because it is impossible to decide on some reliefs whether the garment worn by the deceased women is a large mantle or a veil wrapped around the shoulders. The veil in Palmyrene costume is indeed difficult to describe since it is defined by the way it is used, and perhaps by its size, rather than its shape. As mentioned above, women in ancient Greece used the *himation* as a veil;[26] and Roman women wore a similarly rectangular mantle, the *palla*. It is therefore impossible to dismiss the idea that Palmyrene women might have used the *himatia* for both purposes – and have draped it in different ways according to its purpose. Iconographic representations of the Palmyrene women suggest that the veils were rectangular and, at least in some cases, large enough to cover the whole body from head to feet. They could be made of a variety of fabrics depending on the economic status of the wearer and also, perhaps, on the season. Some of them seem to be lined with fur, a feature that strongly suggests they should be classed as mantles rather than headdresses. A good example of one such heavy garment is found in a

funerary portrait of Apame, daughter of Atilinus, from the *hypogeum* of the Barikai family at the south-east necropolis at Palmyra, dated to the 2nd century CE.[27] With only rare exceptions, veils are portrayed as undecorated.

Given the poor state of the textile preservation, it is impossible to establish whether the *toga*, *himation* and *chlamys*, described above, and the veils, were worn by the citizens of Palmyra going about their daily lives or were specially chosen as part of an iconographic code designed to differentiate the classes and professions within society.

The only possible way to identify the preserved fragments of fabrics as various types of cloaks is to compare the ornamentation of textiles represented in iconography with the preserved textiles from Palmyra.

Decoration and patterns

Most of the funerary portraits show Palmyrenes in patterned tunics and trousers with mantles that are usually undecorated. Where any pattern decoration is present, it routinely appears in two areas, along the edge and the reversed inner border, or hem. Only very rarely can the decoration in the reliefs be compared with known examples from the archaeological record.

Chlamyses with patterned borders

In some cases, the border of the *chlamys* is decorated with a floral motif. A fine example of this is an inscribed funerary relief on the slab closing a *loculus* from the collection at the Louvre Museum.[28] This represents Zabdila, son of Bar'a, son of Zabdateh, who died in 176 CE (Fig. 12. 2.a). The relief shows the upper part of the male body from the waist upwards. The man wears two superimposed tunics, the upper one of which is decorated with a geometric border around the neck and fastened with a belt with a large, rectangular buckle with floral ornamentation. The man also wears a cloak, pinned up with a circular brooch on the right shoulder and a cylindrical *modius*, the typical headdress of the Palmyrene priests. He holds a small libation vessel in his right hand and a circular container with a floral pattern in his left. The upper edge of the cloak around the neck is decorated with a floral border.

Unfortunately, this representation appears to be highly stylised and as such can provide little information about Palmyrene clothing. The relief shows the man only from the

Fig. 12.2. The motif of rosettes in Palmyrene sculpture and architectural decoration: A. Portrait of Zabdila, son of Bar'a, son of Zabdateh. 176 CE. Louvre, inv. no. AO2200. Photo: R. Żukowski; B. The Monumental Arch at Palmyra (photo taken in 2010). 3rd century CE. Photo: Author.

waist upwards with his mantle slung over his shoulder. The way it is worn, together with the fact that it is pinned with a brooch, suggests that it is a short mantle of the *chlamys* type, which fits in well with the other elements of Iranian costume – ornamented tunic and a belt with a large, rectangular buckle. The decorative border has a rosette pattern; this was popular in architectural design and appears to have been an invention of the sculptor rather than a realistic representation of the fabric (Fig. 12.2.b). This interpretation is supported by the use of an identical motif in the decoration of the vessel which the priest holds in his left hand.

A similar pattern decorates a short mantle worn by the men represented on the banquet relief from tomb no. 36 in the western necropolis (Fig. 12.3).[29] The sculpture is badly damaged – the head is missing, as well as the right arm and leg, the left hand and both feet. The man is shown lying on the mattress in a banquet pose – he was probably holding a libation *kylix* in his left hand. He is dressed in Parthian dress: a pair of loose trousers with decorative bands down the front of each leg; and a long-sleeved tunic with side slits decorated with patterned bands centrally in front, at the lower edge and at the sleeves around the wrists. This outfit is completed by the short mantle, fastened at the right arm. It is decorated with a line of pearl motifs and a band of floral rosettes at the lower edge on both sides of the fabric and the turned upper edge, around the neck. In this case, too, the patterns of the decorative bands have close analogies to the architectural decoration of Palmyra.

Nothing from the archaeological finds at Palmyra can be identified as fabric belonging to a mantle of the *chlamys* type. The iconography suggests that they were probably decorated with a patterned inner border or lined with a patterned fabric: the latter possibility cannot be dismissed, especially in the garments of the elite. Many examples of patterned textiles were found in Palmyra, including woollen fabrics decorated with bands of diverse geometric and floral patterns, as well as imported silks. A piece of Chinese *jin* silk (polychrome warp-faced compound tabby), excavated from tower-tomb no. 65 and decorated with male figures picking grapes, tigers and camels, was found together with a few pieces of green woollen thread, suggesting that it had once been attached to the other fabric, probably to form an edging.[30] It is therefore possible that the short mantles were decorated with woollen patterned linings or decorative edging made of wool or silk.

Fig. 12.3. Man wearing Parthian-style tunic and trousers with a short mantle. Banquet relief from tomb no. 36. 3rd century CE. After Schmidt-Colinet (1992, tab. 37a B3). Courtesy of A. Schmidt-Colinet.

Female himatia and veils with decorated borders

The *himatia* or veils worn by the Palmyrene women could also be decorated with patterned edgings or ribbons sewn onto the borders. Although most representations portray the women wearing unpatterned mantles and veils, there are some very rare funerary busts which show them with ornamented coats wrapped around their chests. A good example of this is the relief representing Batti, daughter of Yarḥai, from the collection of Ny Carlsberg Glyptotek (Fig. 12.4).[31] The woman is bare-headed, with her hair pulled back and flowing down her shoulders; she is dressed in a tunic decorated with patterned bands and wears rich jewellery – a strand of small beads and an oval pendant on a twisted cord hang around her neck; and on both arms are bracelets made of a few twisted straws of pearls. She wears a mantle or veil wrapped around her chest and arms. Both the upper and lower edge of the cloak are patterned: the upper border is composed of a stylised meandering floral scroll, while the lower border is decorated with a motif of oblique squares with four-petal rosettes in the centre. While the upper border is definitely turned back so the visible pattern is clearly on the inner surface, it is impossible to know for certain about the lower one.

Fig. 12.4. Funerary portrait of Batti, c. 230 CE. Ny Carlsberg Glyptotek, inv. no. IN 1053. Photo: Anders Sune-Berg, courtesy of Ny Carlsberg Glyptotek.

The mantle represented on this relief sheds an important light on the relationship between the textiles shown on sculptures and those found in the archaeological record, even though its exact shape and approximate size cannot be reconstructed. Significantly, the motif of the oblique squares is a typically 'textile' pattern, unlike the stylised floral patterns described above which resemble architectural decoration; the oblique square is a particularly popular design on tablet-woven ribbons and belts and, because of its lack of curved lines, easy to reproduce in any type of weave, including extended tabby, tapestry or diagonal. It is, moreover, found on many of the textiles recovered from the excavations at Palmyra.

The decorative woven ribbons are not commonly found among the archaeological textiles from Palmyra. Only two examples are known to date. These were sewn onto fragments of good quality woollen tapestry decorated with ornamented bands with floral motifs; they were found in the tower-tomb of Iambliq, dated to 83 CE (Fig. 12.5). The patterns are made up of yellow, light and dark red, and green weft threads. The spaces between the decorative bands are red with a shading of green lines.[32] The surviving fragments of this fabric were bordered with two types of patterned ribbon: one with a motif of lozenges and the other decorated with oblique squares inside which were four smaller oblique squares. The ribbons seem to have been woven specifically to be attached to this fabric as they are made of yarn in the same colours. Both ribbons were sewn onto the longer edges of the fabric, in the warp direction, probably to the opposite sides.

This textile find from the tomb of Iambliq is usually interpreted as a part of an Iranian-style ornamented tunic,[33] or mantle.[34] The presence of two different decorative ribbons on both of the longer sides of the fabric, however, weakens the tunic hypothesis. Instead, the fabric shows a striking similarity to the mantle represented on the funerary portrait of Batti. The two different edgings, including one with the motif of oblique squares, suggest that these textile pieces might have been fragments of a woman's mantle or veil. This suggestion, however, raises an interesting question. The fabric found at the tomb of Iambliq is patterned, whereas the mantle on the relief is plain. Was this discrepancy the result of an artistic convention whereby funerary reliefs showed only the decorative borders of the mantles – or were there other reasons for such a difference? One possibility is that the original cloaks were indeed made of plain fabrics but had ornamented linings, leaving the patterned edgings visible only when the garment was wrapped around the body. It is, however, difficult to understand why elegant and rich Palmyrene women would hide the high quality, elaborately woven, patterned fabrics and use them merely as linings for less spectacular plain cloaks.

Another possible explanation is that patterns were painted rather than carved and that the veils and *himatia* worn by

Palmyrene women were originally represented on the reliefs as decorated but that this evidence has been lost as the paint has faded. Until now, only traces of colour paint have survived on the sculptures. However, scientific analyses now reveal that the reliefs were originally painted and that the featured jewellery was often gilded. A detailed examination of the so-called 'Beauty of Palmyra' – a female funerary portrait from the collection of Ny Carlsberg Glyptotek – revealed traces of yellow, pink, red, black and white paint as well as gilding (Fig. 1.6 in this volume).[35] Another funerary portrait, a female representation, originally a part of the banquet scene on the cover of a sarcophagus, also from Ny Carlsberg Glyptotek, was recently studied using a range of analytic methods and revealed the traces of blue paint made from a lapis lazuli pigment.[36] In both cases, unfortunately, the only traces of the original paint are found preserved in the folds of the garments, making it impossible to determine whether the main surface of the costumes was plain or patterned.

Fig. 12.5. Fragment of woollen fabric with a sewn-on ribbon, from the tomb of Iambliq. 1st–3rd century CE. After Schmidt-Colinet (1995, fig. 96). Courtesy of A. Schmidt-Colinet.

An example of a painted funerary portrait with visible traces of paint can be found in the collection of the Museo Nazionale d'Arte Orientale in Rome.[37] It represents a woman wearing a tunic, her *himation* fastened with a circular brooch on her left shoulder; she wears an elaborate headdress and jewellery, and a veil. The figure of her son can be seen behind her right shoulder. The boy wears the oriental dress composed of a tunic with decorative bands in front and around the wrists; his trousers are also decorated with an ornamental band running down the front of each leg. The decorative bands on his garment are not carved with any design, as was a standard practice in Palmyrene sculpture, but those on his chest and left wrist show traces of orange paint.[38] This evidence is especially significant since it shows that in some cases the decorative features were indeed expressed by painting rather than carving.

The funerary portrait of Batti described above is exceptional among the Palmyrene women represented in funerary art. Most of the reliefs show deceased Palmyrene women in *himatia*, and veils, without decorative edgings represented. However, if it is accepted that the fabric recovered from the tomb of Iambliq was indeed part of a woman's patterned mantle, then it surely follows that some of the women's cloaks would have been patterned. The textile from the tomb of Iambliq is the only example found where the sewn-on decorative edging has been preserved – though plenty of similar woollen fabrics, woven usually in a tapestry weave and decorated with ornamented bands, have been found in Palmyra.

One of the most significant of these finds is a piece of woollen fabric with yellow patterns on a red background, found in the tomb of Kitot and dated to 40 CE. The decoration consists of bands decorated with various floral and geometric ornaments, clearly resembling the patterns of architectural decorations. The areas between the decorative bands are ornamented with four-petal rosettes. The decorative bands are positioned symmetrically on two sides of the central motif, composed itself of the central row of diagonal squares with four-petal rosettes flanked on both sides by the wave pattern, a row of small diagonals and a simple line.[39] Interestingly, one of the other decorative motifs on this fabric shows a floral scroll similar to the decoration on the upper edge of the mantle in Batti's funerary portrait.

Many details point to the local production of this type of fabric, particularly the close resemblance between the Palmyrene architectural decoration and the patterns used in the weaving; another characteristic is the typical shading on the unpatterned areas between the decorative bands.[40] It appears, therefore, that they were produced in local workshops. They may also have been exported, given that similar fabric was also found in Dura Europos.[41]

These textiles probably had different uses as furniture textiles – coverings for couch mattresses and pillows – and as women's headdresses: both kinds of textiles are represented as patterned in the iconography. However, their use in the manufacture of patterned women's mantles or veils cannot be discounted. If such a hypothesis is accepted, it would mean that Palmyrene women's clothing had a specific local style typified by the *himation* fastened with a brooch on the left arm, a veil covering the head and the body, and mantle patterned with a local Palmyrene design. Further research on the polychromy on Palmyrene funerary portraits may produce some new evidence to confirm or refute this hypothesis.

Himatia with H-shaped patterns

The *himatia* worn by Palmyrene men are rarely represented with decorative borders although in some cases their hems are shown with an ornamental motif. Where the figure of the deceased is reclining on the banquet couch, the motif usually appears on the part of the mantle covering the thigh. In the case of funerary busts, represented on slabs of the *loculi*, the motif is sometimes placed on the upper part of the dress, usually on the chest. The most popular design is an H-shaped ornament, one of the variations of decorative motifs usually called *gammadia* or, sometimes more specifically, 'forked pattern'.[42]

The best example of such a representation is the funerary relief from the collection at the Museum of Louvre portraying Yarḥai, son of Elahbel, according to the inscription placed in the upper right corner of the slab (Fig. 12.6).[43] Yarḥai is represented as a bearded man, wearing two superimposed tunics of which the bottom one is decorated with a simple pearl pattern around the neck and the upper one with two large vertical bands stretching down from the shoulders. The pattern is visible only on the right shoulder. It represents a vine-scroll with human figures. The left shoulder and the whole of the left hand are covered by a mantle which is also wrapped around the right arm and elbow. The sculptor put plenty of effort into representing the large H-shaped pattern on the mantle. Interestingly, this was done without any attempt at realism. The ornament, patterned with a floral motif surrounded by pearls, is shown with a stylised full rounded view which almost completely ignores the effect the folds of the fabric would have had, even though these are carefully carved.

Another significant sculpture is that of a banquet scene on the cover of the sarcophagus found in the hypogeum of 'Alaine (Fig. 12.7).[44] It represents a group of six people of whom one is lying on a mattress, holding a small bottle in the right hand and a *kylix* in the left; the other five are represented on a smaller scale behind and close to the feet of the first figure. The head of the main figure is missing but the rest of its body is well preserved. It represents a man wearing a typical Iranian dress composed of a long-sleeve

Fig. 12.6. Portrait of Yarḥai, son of Elahbel. Louvre, inv. no. AO2398. End of the 2nd century CE. Photo: R. Żukowski.

tunic with slits down the sides, loose trousers and fabric boots. All these items are richly decorated: the tunic has two patterned bands with floral decoration, stretching from the shoulders down to the lower border; the trousers are ornamented with wide vertical bands with a floral design on the front of each leg; and the boots are fully covered with a floral pattern. A mantle is wrapped around the hips and thighs and one of its ends is strapped onto the man's left elbow. The short edges are decorated with patterned edging. In the middle, at left thigh and knee height, the sculptor has included a large H-shaped ornament with a floral pattern. Here again the ornamentation is represented as a full rounded shape that takes no account of the direction of the fabric's folds.

Archaeological material demonstrates that mantles with such designs were indeed worn by Palmyrene citizens. Seven fragments of woollen fabric with partially preserved forked *gammadion* or H-shaped patterns were found in the tombs of the Palmyra necropolis.[45] The first example, found in the tomb of Kitot, is a small piece of woollen fabric with a forked pattern, purple on a yellow background. Only a fragment of the motif is preserved but it can be recognised as H-shaped.[46] A large fragment of cloth with a light purple *gammadion* and *tabula* on a deep violet background was found in the same tomb (Fig. 12.8). Analyses of the dyes

Fig. 12.7. Man wearing a Parthian-style tunic and trousers and a Greek-style mantle with an H-shaped pattern. Banquet scene from the tomb of Alaine in Palmyra. 3rd century CE. Photo: Waldemar Jerke, Courtesy of the Polish Centre of Archaeology of the University of Warsaw.

showed that the weft thread used for the tapestry decorative motifs was dyed with Murex purple.[47]

The next fragment, from the tomb of Iambliq, is a piece of woollen fabric with a light purple forked pattern on a green, greyish background (Fig. 12.9). While the pattern was probably made using wool dyed with purple, the background colour was obtained by mixing indigo with flavonoids from an unknown plant.[48] A similar fragment from the same tomb had a yellow background, dyed with tannin probably obtained from oak apple.[49] From tower-tomb no. 65 came a small piece of yellow wool with a deep blue, H-shaped decoration (Fig. 12.10).[50] And from the tomb of Elahbel came another small piece of woollen cloth in a natural beige colour, with a deep purple H-shaped pattern made of wool dyed with Murex purple.[51] The final example is a piece of yellow wool with a purple H-shaped pattern found in tower-tomb no. 46.[52]

Mantles decorated with *gammadion* or H-shaped patterns seem to have been popular garments in the eastern Mediterranean during the Roman period – they are widely represented not only in the Palmyrene sculpture but also in the paintings from Dura Europos.[53] The popularity of such garments is also supported by the archaeological finds from other sites. Numerous fragments of similar clothing have been found in Dura Europos.[54] The first was found in Tomb no. IV at the necropolis of the Citadel; it was a well-preserved large piece of undyed woollen mantle decorated with a purple band forked at the end.[55] The next, found in Tower no. 1, was a fragment of a beige woollen tapestry mantle with a purple H-shaped decoration.[56] Four fragments of undyed woollen tapestry mantles with *gammadia* were also found in Embankment no. 7 (nos 22, 23, 24, 25). Most of the patterns were purple in colour; in one case the pattern was made of two different types of wool – grey-blue and grey and pink-purple – and the decoration was shaded.[57] The final example was also a fragment of undyed wool mantle with a *gammadion* pattern, in this case made of indigo-blue wool.[58] The dyes used were probably indigo and madder.[59]

Many pieces of woollen fabrics with coloured, often purple, decoration were also found in the At Tar caves in the south-western part of present-day Iraq, most of them unfortunately too small for any patterning to be identified. There are a few items, however, which can be confidently interpreted as fragments of garments similar to the examples found in Palmyra and Dura Europos. A good example of this is a piece of woollen fabric made of yellow-reddish wool and described in a published report as a plain weave

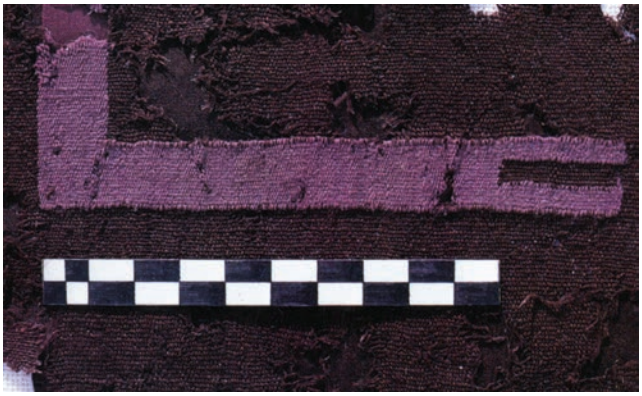

Fig. 12.8. Fragment of woollen fabric with a purple gammadion *pattern from the tomb of Kitot. 1st–3rd century CE. After Schmidt-Colinet* et al. *(2000, col. pl. IIId (no. 167)). Courtesy of A. Schmidt-Colinet.*

Fig. 12.9. Fragment of woollen fabric with a purple H-shaped pattern from the tomb of Iambliq. 1st–3rd century CE. After Schmidt-Colinet et al. *(2000, col. pl. IVb (no. 296)). Courtesy of A. Schmidt-Colinet.*

with ribs[60] decorated with a greyish purple H-shaped motif and a band along the edge.[61] This type of dress was popular in the whole of the eastern Mediterranean area – such garments have also been found along the Levantine coast, for example at Masada.[62] Another example has also been recovered from Mons Claudianus in the Eastern Desert in Egypt. It consisted of a tunic sewn together from pieces of an old mantle which had *gammadion* patterning which resulted in the decoration appearing in rather odd places on the tunic.[63]

Woollen mantles with H-shaped patterns and *gammadia* were clearly a characteristic and popular type of clothing in Palmyra and its adjacent regions. Numerous iconographic representations from Palmyra and Dura Europos show

Fig. 12.10. Fragment of woollen fabric with a purple H-shaped pattern from the tomb of Elahbel. 1st–3rd century CE. After Schmidt-Colinet et al. *(2000, col. pl. IIIb (no. 414)). Courtesy of A. Schmidt-Colinet.*

that this type of garment was worn by the male citizens of these cities in a variety of contexts – though some of the characteristics which distinguished the Palmyrene clothing are not found elsewhere. Although most of the archaeological textiles are too small to reveal the shape and type of the garment of which they were once a part, the iconographic representations from both Dura Europos and Palmyra reveal that the fork-ended patterns are usually found on the large, rectangular cloaks – the *himatia.* In Dura Europos they are represented as a part of the Greek style garment, wrapped around a long tunic or *chiton.* In Palmyra, by contrast, this type of mantle is found associated with the Parthian dress.

This style, blending oriental and western elements of garments, seems to be purely Palmyrene. The typical Parthian dress, as represented in Iranian sculpture, was usually accompanied by a long-sleeved coat and sometimes a shoulder cloak in the style of the Greek *chlamys*, but

never with a *himation*-type mantle.[64] As has already been noted, the archaeological textiles from Palmyra were seldom found in context because the tombs were plundered. As a result, the archaeological finds cannot confirm whether such combinations of clothing were actually ever worn – though the colours of the preserved fragments from Palmyra may provide some clues.

Most of the fragments of this type of mantle found in archaeological contexts on sites such as Dura Europos, Masada or Mons Claudianus were made of undyed wool; they would therefore originally have had a creamy-white background with purple (or red) patterns added. This finding fits in well with the iconographic representations, mostly paintings, that were found in the Synagogue of Dura Europos; here, male figures are usually shown wearing white *himatia* with purple H-shaped patterns. In Palmyra, by contrast, almost all preserved fragments are made of dyed wool and the most popular seem to be yellow mantles with purple or deep blue ornamentation. The natural-white mantle was probably too modest to blend in well with the more colourful, richly ornamented elements of oriental dress. Therefore it is possible that in Palmyra the H-shaped motif, popular in the eastern Mediterranean region, was used and adapted to fit in with local fashions; indeed, the *himatia* with such decoration were worn with trousers in place of the classic *chiton* or tunic that was common in the Hellenised Mediterranean cities.

Such a conclusion might also shed some light on the location of the workshops that produced woollen mantles with tapestry patterns. Since the garment had a Mediterranean origin and developed most probably from Hellenistic dress, it is possible that specialised workshops were located in the Hellenistic cities in Greater Syria, where Hellenistic culture had replaced the earlier indigenous fashions. However, regional differences between woollen mantle fragments found at the different sites suggest that this type of garment was more likely to have been produced in local workshops to supply local markets. The differences between the materials are significant, though minor. For example, both the pattern and background of the cloaks found in Dura Europos were made of tapestry while in Palmyra and Masada the tapestry pattern is interwoven into a plain weave background; and in At Tar the background was plain with a ribbed pattern. Another discrepancy – already mentioned – is the colour. In Dura Europos, the white/natural wool-coloured mantles predominated, while in Palmyra there existed a wide spectrum of colours, from yellow through green to deep purple. These differences reveal the distinctive features of a local production in clothing that would in all other respects have fitted perfectly into the general clothing fashions of the Roman world. It can therefore be assumed that the colourful *himatia* were produced in Palmyra for the local market and were targeted at the local high-status citizens who could flaunt their social and economic status through the rich, vibrant clothing they wore.

It remains possible that the colour of the mantles had some additional meaning – perhaps an association with a particular profession or social status – or that a colour or colours were reserved for priests. The archaeological textiles cannot, unfortunately, be matched with the individual burials, often provided with inscriptions, so it is impossible as yet to support such a hypothesis. Further analyses of the original polychromy preserved on some reliefs may provide more answers in the future.

Iconographic material from Palmyra demonstrates that the H-shaped pattern would have been an important feature of the clothing, perhaps designed to highlight the high status or some other social aspect of the wearer. Where it appears on the reliefs it is always highly visible with its full frontal shape displayed, even if it does not fit the realistic representation of the fabric folds. The pattern is usually oversized. Although the preserved fragments of textiles from Palmyra show that the H-pattern was usually 10–15 cm long, it appears on the reliefs to be at least twice as long based on a comparison between it and the size of the wearer's body. Moreover, it is always represented as decorated with elaborate floral patterns. No examples of H- or *gammadion* patterning with this additional detail have been found on the archaeological sites in this region. The closest has been a textile fragment found at Dura Europos; here the decoration was shaded with the use of two different colours of the weft thread, as has already been mentioned.

These two features, the large size and the additional decorative detail, seem to be a purely artistic convention and therefore probably an attempt to represent the deceased's garment as the most luxurious possible. As already noted, recent analyses prove that the Palmyrene sculptures and reliefs were painted[65] and may therefore have reflected the actual colour of the textiles involved. If this is so, then there would have been no reason for the artists to have added an additional detail to their work by sculpting the decorative bands and in-fills with geometric or floral motifs that are not found within the archaeological record. Interestingly, the floral motifs used to fill the patterns and borders which, on preserved archaeological textiles, were distinguished by contrasting colours, were taken from the repertoire of the architectural decoration – rosettes, vine or peopled scrolls being among the most popular.

The convergence of decorative patterns of textile with architectural decoration in Palmyra was first observed and discussed by Andreas Schmidt-Colinet[66] who pointed out that the artisans from Palmyra must have been using the pattern books popular in the Mediterranean for more than one type of craft. This observation is well confirmed by multiple examples of patterned fabrics decorated with easily recognisable among motifs adorning Palmyrene monumental

architecture. It seems, however, that in some cases the motifs popular in architectural decoration were chosen by sculptors randomly and do not represent a realistic view of how the textiles worn by the Palmyrenes really looked. Instead, they are intended to give a general impression that the clothing was decorated. It is only natural that artisans working in stone were more accustomed to reproducing motifs from the masonry than those actually used to decorate fabrics.

Conclusion

Archaeological remains from Palmyra provide a unique opportunity to study its ancient clothing through the analysis of both the textiles recovered from the funerary contexts and the funerary sculpture representing citizens of different social status and different professions. The detailed study of just one type of garment, the woollen cloak, demonstrates how the archaeological evidence provides information from two types of sources: archaeological textiles and the iconography. These not only supplement each other but also facilitate the interpretation of the surviving artefacts.

The archaeological textiles yield plenty of data about the fibres, dyes, weaving techniques and colours, as well as about the production centres and the local features of weaving production. Only too often, however, crucial information about clothing fashions and typical costumes is lacking. Iconography, on the other hand, provides evidence about the styles of clothing – though this information must always be interpreted with caution: the iconographic intention, artistic convention and the varying skills of the makers can combine to misrepresent the clothes worn both routinely and on special occasions.

In the Palmyrene iconography, the perhaps richly decorated female mantles were portrayed as unpatterned; and some decoration on the male cloaks was produced in an unrealistic manner, suggesting the idea of patterned fabric rather than its realistic depiction. On the other hand, some patterns were emphasised by being made much larger than they would have been on real garments – and embellished with additional decorations unknown from the archaeological evidence.

There can be multiple reasons for the observed discrepancies between archaeological textiles and the way they appear on funerary portraits. The first and perhaps the most obvious would seem to be the skill of the sculptor; some portraits are of good quality while others are simplistic and ineptly made. Some artisans might be just not skilled enough to execute complicated floral designs in stone. This might apply especially to the fabrics decorated with patterned bands which would have been extremely difficult to sculpt in stone while maintaining a realistic representation of the fabric folds. Another reason, associated with the first, might have been economic. A more detailed portrait would have cost more; and only the richest citizens and the most prominent members of the families could have afforded (or been honoured with) high-quality portraits sculpted by the most expensive sculptors who alone would have had the skills to present them in richly ornamented garments.

The third reason, already discussed above, could be related to the fact that the Palmyrene reliefs were painted. Only traces of this decoration have survived, making it now impossible to reconstruct more than the colours used: the decorative details have vanished and there is now no way of knowing whether they were patterned or merely covered with one colour of paint. In short, an important part of the message encapsulated in the funerary portraits is now missing.

Finally, and most importantly, differences between the textiles and their images in the Palmyrene iconography appear to be a function of the funerary portraits themselves. These images promoted not only the memory of the deceased but presented a range of information about his or her social and family status, profession and values. These portraits, along with the funerary garments, were intended to show the deceased as they wanted to be seen – or as their families wanted to present them. The images, therefore, are in a sense idealised, perhaps not so much in the way the facial features are shown as in the clothes and the items that accompanied them. The representation of clothes and fabrics was not realistic; instead, it was designed to draw attention to those elements of the garment and its idealised decoration that fitted in with the visual conventions in vogue in Palmyrene society.

The Palmyrene portrait was for the most part a formalised one. In the majority of cases, the type of dress represented on the funerary sculpture together with the accessories held by the subjects were connected both to the deceased's profession and to the special attributes the sculptor intended to portray. The Parthian garment, for example, which accompanied the mantle and *modius*, was typically the dress of priests; Greek costume and writing accessories revealed the literacy accomplishments of an individual; and a woman wearing a veil and holding a spindle and distaff was a manifestation of the perfect symbol of the good wife.[67] Many of the details included on these funerary reliefs were evidently symbols designed to inform future generations. The garments in which the Palmyrenes were represented on the funerary portraits formed part of that self-same message. They speak of how the citizens wanted to be seen, not necessarily how they dressed in their everyday lives.

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Notes

1 This research was financed by the National Science Centre of Poland, within the project 'Textiles in the Palmyrene Iconography', grant no. 2016/21/B/HS3/00934.
2 Pfister (1934; 1937; 1940).
3 Schmidt-Colinet *et al*. (2000).
4 Maik (1994, 11–13).
5 Raja (2017, 115).
6 Wielgosz-Rondolino (2016, 69).
7 Raja (2018, 1–2); Heyn and Raja (2019, 39).
8 Gawlikowski (1970, 45–46).
9 There are rare banquet scenes on which the central reclining person is a deceased woman; these are usually represented on individual slabs rather than on sarcophagi covers. A good example of such an object is a relief in the collection of the Archaeological Museum in Istanbul (inv. no. 3728/O.M.180) representing a reclining woman accompanied by another, standing, woman placed behind the legs of the first one. A similar scene is represented on the relief from the collection of Damascus National Museum (inv. no. C2153/4523). Both are dated to the 3rd century CE; Krag (2018, 375–376, cat. nos 788 and 790).
10 Schmidt-Colinet *et al.* (2000, 1–2).
11 Heyn and Raja (2019, 43–44).
12 Seyrig (1937); Sarkhosh Curtis (2017).
13 Cussini (2005).
14 Vergil, *Aeneid* 1.282.
15 Brøns and Skovmøller (2017, 55).
16 Vout (1996).
17 Wielgosz-Rondolino (2016, 69).
18 Wielgosz-Rondolino (2016, 79).
19 Wielgosz-Rondolino (2016, 76–77).
20 Rothe (2020, 139–142).
21 Rothe (2020, 143).
22 Rothe (2020, 143).
23 Tertullian, *De Pallio* 3.7: … *ut hoc pallium, etsi Graecum magis, sed lingua iam penes Latium est. Cum uoce uestis intrauit.* 'It is, to be sure, more Greek, but as far as the word is concerned, it belongs to Latium by now. With the word the dress was introduced'. Translation: Hunink (2005, 45).
24 Tarbell (1906, 284–285).
25 Sadurska and Bounni (1994, 153 cat. no. 197). The Aramaic inscription reads as follows: 1. ŠLMLT BR 2. MLKW DYNYD 3. DY 'BDT M'RT' 4. DH: 'Šalmallat, son of Maliku, [son of] Dyonys[ios], who made this hypogeum'.
26 Lee (2012, 182).
27 Palmyra Museum, inv. no. B 2666/8967; Krag (2018, 300, cat. no. 498).
28 Louvre, inv. no. AO 2200; Dentzer-Feydy and Teixidor (1993, 184, cat. no. 185). Aramaic inscription on the upper right corner of the slab: 1. ḤBL 2. ZBDLH BR 3. BR'' BR 4. ZBD'TH 5. BYRḤ 'DR ŠNT 5. 400+20+20+20+20 6.+7: 'Alas! Zabdila, son of Bar'a, son of Zabdateh, in the month Adar 487 (March 176 CE)'.
29 Schmidt-Colinet (1992, tab. 37aB3); al-As'ad and Schmidt-Colinet (1995, 46–50, fig. 63).
30 Schmidt-Colinet *et al*. (2000, 145–146, cat. no. 240); Żuchowska (2014, 144).
31 Ny Carlsberg Glyptotek, inv. no. IN 1053; Krag (2018, 372, cat. no. 780). Aramaic inscription is as follows: 1. ṢLMT BTY 2. BRT YRḤY 3. ḤBL: 'Statue of Batti, daughter of Yarḥai, alas!'. Another example is a quite similar funerary portrait of 'Atti, daughter of Yarḥai from the collection of Bibliothèque Nationale Universitaire in Strasbourg. Krag (2018, 371, cat. no. 776).
32 Stauffer (1995, 59–60); Schmidt-Colinet *et al.* (2000, 154–55, cat. no. 300).
33 Stauffer (1995, 60); Schmidt-Colinet *et al*. (2000, 155).
34 Schmidt-Colinet *et al*. (2000, 155).
35 Brøns (2020); Ny Carlsberg Glyptotek, inv. no. IN 2795.
36 Brøns *et al.* (2020); Ny Carlsberg Glyptotek, inv. no. IN 1150.
37 Museo Nazionale d'Arte Orientale, Rome, inv. no. 6011/6827.
38 Brøns (2020, 156); Krag (2018, 355, cat. no. 721).
39 Schmidt-Colinet *et al.* (2000, 129-131, cat. no. 175).
40 The similarities between architectural decoration and the textiles patterns found in Palmyra were discussed in detail by Khaled al-As'ad and Andreas Schmidt-Colinet (1995, 49–52).
41 Pfister and Bellinger (1945, 36, cat. no. 128).
42 The *gammadia* were patterns in the form of a bending line forming the shape of the Greek letter *Gamma*. Sometimes the pattern had forked ends. The H-shaped patterns were probably a variant of *gammadion*. The origin of *gammadia* and H-shaped patterns is not clear, and no convincing explanation has yet been suggested. The use of this motive on textiles and garments in the Roman Empire was described in a comprehensive study by Szymaszek (2014). The motifs continued to be popular in the repertoire of textile ornaments over a long period and were still being used on church tablecloths in Byzantine times, when the term *gammadion* appears for the first time in the written sources. The Christian literature mentioning the term *gammadion* and the meaning of the term was recently discussed by the same author, Szymaszek (2017).
43 Louvre, inv. no. AO 2398; Dentzer-Feydy and Teixidor (1993, 190, cat. no. 191). The Aramaic inscription is as follows: 1. YRḤY BR 2. 'LHBL 3.ḤBL: 'Yarḥai, son of Elahbel, alas!'".
44 Sadurska (1977, cat. no. 1); Tanabe (1986, fig. 374).
45 Schmidt-Colinet *et al*. (2000, cat. nos 165, 167, 238, 296, 297, 414 and 515).
46 Schmidt-Colinet *et al.* (2000, 126, cat. no. 165).
47 Schmidt-Colinet *et al*. (2000, 126, cat. no. 167).
48 Schmidt-Colinet *et al*. (2000, 154, cat. no. 296).
49 Schmidt-Colinet *et al.* (2000, 154, cat. no. 297).
50 Schmidt-Colinet *et al.* (2000, 144, cat. no. 238).
51 Schmidt-Colinet *et al.* (2000, 169, cat. no. 414).
52 Schmidt-Colinet *et al.* (2000, 187–188, cat. no. 515).

53 Kraeling (1956).
54 Pfister and Bellinger (1945, cat. nos 18, 19, 22, 23, 24, 25 and 33).
55 Pfister and Bellinger (1945, cat. no. 18).
56 Pfister and Bellinger (1945, cat. no. 19).
57 Pfister and Bellinger (1945, cat. nos 22, 23, 24, 25).
58 Pfister and Bellinger (1945, cat. no. 33).
59 Pfister and Bellinger (1945, 20–22).
60 According to CIETA vocabulary it should be described as extended tabby, CIETA (1959, 17).
61 Fuji (1980, cat. 178).
62 Sheffer and Granger-Taylor (1994).
63 Bender Jørgensen (2018, 17, fig. 4).
64 Sarkhosh-Curtis (2017, 52–53).
65 Brøns (2020); Brøns *et al.* (2020).
66 Al-As'ad and Schmidt-Colinet (1995, 49–52).
67 Sokołowski (2014, 377); Kropp and Raja (2014, 400).

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Chapter 13

Reading dress and identity in the Roman mosaics of Carthage and Tabarka

Amy Place

Abstract

This paper examines the iconography in two mosaics: the Dominus Julius Mosaic from Carthage and a villa rustica mosaic from Tabarka, Tunisia. It explores the methodological issues of extrapolating Roman dress practice from mosaics. Depictions of dress in mosaic floors can be understood as a form of 'represented' clothing, a form that documents dominant societal ideas and ideals that have been transformed into the visual medium to become 'image-clothing'. The use of mosaic pavements formed part of broader mechanisms of identity negotiation and expression, particularly in elite circles. In such dress imagery, elite patrons signalled appropriate participation in clothing practice both by employing suitable themes and in the dress styles they were shown wearing. Social differentiation could also be maintained by contrasting how different figures were clothed. 'Reading' dress from mosaic imagery requires an appreciation of how visual imagery was intended to be viewed. It was, most significantly, a version of 'lived' dress practice manipulated to reflect contemporary visual conventions.

Introduction

The Roman world enjoyed a vibrant clothing culture. Roman dress offered a significant means of expressing identity and the clothed body was a highly symbolic medium. Dress served a functional purpose in protecting and covering the body, but it was also an important area of social competition and display. The wearer manipulated their clothing to signal important associations, promoting, to an extent, how they wished to be perceived.[1] This becomes particularly apparent from the 3rd century onwards when dressing fashions became increasingly more colourful and ornate. A multiplicity of interactions – from actual experiences to idealised interactions – conveyed aspects of dress experience, mediated through different media. It was not just the textiles themselves that negotiated and framed an individual's recognition of the language of dress. Many versions of dress served to structure and enhance an individual's engagement with clothing practices. The majority of Roman textiles have not survived, except in cases of extreme environmental conditions.[2] This material lacuna accurately reflects neither the ubiquity of textile production nor the integral part played by clothing in the diverse and dynamic cultural system that was such an integral part of identity construction.[3] Given this absence of material evidence, any study of ancient dress has to look to other categories of evidence. One such category is the visual representation of what can be described as 'image-clothing'. Dress imagery can never, of course, offer the rich details that textile fragments might, but they nevertheless provide some insights into aspects of Roman textile reality, at least visually, and thereby enhance the understanding of the language of clothing fashions.

This paper focuses on one type of visual media: mosaics. It examines two 4th-century mosaics from Tunisia: the Dominus Julius Mosaic from Carthage and a *villa rustica* mosaic from Tabarka. Mosaics offer a far more durable example of how people chose to portray themselves than do fragile textiles from archaeological contexts. Composed of vivid polychrome images, mosaics hint at a colourful textile world. Indeed, the use of increasingly vibrant textiles from the 4th century CE onwards mirrors the growing popularity of colour decor in elite residences.[4] But how far does the dress imagery found in mosaics relate to what was worn in real life? Do these mosaics present an 'accurate' view of clothing garments or are they merely highly stylised

representations? If the latter is the case, then how can such images be used to study Roman dress? Despite the somewhat surprising neglect of mosaic iconography as a resource for the exploration of Roman clothing habits, such evidence can, when studied closely, shed new light on the language of Roman dress.[5] Mosaics do this not by offering a photographic snapshot of Roman clothing as it was worn in normal life; instead, elements of Roman sartorial discourse were embedded in imagery and articulated tile by minute tile. It follows that mosaic dress iconography records the painstaking construction of a particular version of dress practice that can be used to decipher both the symbolic and semiotic role of clothing in the later Roman world.

The research begins by outlining some key methodological issues that arise when using mosaic pavement imagery to interpret contemporary later Roman dress, given that such images may not represent the actual clothing worn in real life. Its purpose is to demonstrate that, by adopting the correct approach, the visual portrayal of dress imagery in mosaic iconography can inform discussions about Roman dress. Two contemporary case studies, the Dominus Julius Mosaic from Carthage, *c*. 380–400 CE, and a *villa rustica* mosaic from Tabarka, *c*. 400 CE, both from Tunisia, North Africa, are used to contextualise the textile iconography that features figurative imagery.[6] All too often, modern scholarship dismisses mosaic pavements as being mere images, the illustrations to a text, and as such divorced from the material significance they once held. Their role in terms of identity construction and elite performance, however, influenced how people at the time interpreted their iconography. Conditioned through experience to interpret the iconography in particular ways, the responses of people at the time to the imagery would not have been the same as those of the modern viewer.[7] By examining the relationship between dress iconography and clothing discourse it is possible to appreciate both how such imagery contributed to the cultural rhythms of dress in the later Roman world and how dress iconography operated within the bounds of the visual rhetoric of dress.

Visual imagery as a source for Roman dress: Some methodological issues

Sources for Roman dress essentially fall into three groups: archaeological, visual and textual. Although each is undoubtedly informative in its own right, it would be wrong simply to combine evidence from each source without considering each within its own context. Different versions of clothing reveal different interpretations of clothing as worn in their respective circumstances. As a symbolic representational system, clothed bodies reflect prominent ideas and ideals. This is true for any form of dress, be it metaphorical clothing in literature, visual portrayals or the dressed individual who appears in public. On occasion, the resulting interpretations may appear to contradict each other as they seek to recognise different aspects of the clothing experience, but this does not necessarily invalidate the accuracy of these sartorial conclusions. Therefore, investigating the relationship between visual depictions of clothing and the version of dress that the image represents is a crucial step towards interpreting how ancient iconography, and more specifically mosaics, can be utilised in discussions about Roman dress.

How the three categories of evidence for dress, the archaeological, visual and textual, interrelate with each other from a theoretical perspective is a subject tackled by Roland Barthes in *Système de la Mode* (1967). In his study, he examines contemporary French fashion using evidence from fashion magazines. Barthes' structural framework offers a useful departure point for dress historians as it provides a methodological foundation for conceptualising different forms of dress evidence and understanding their relationship to one another. His fashion theory can readily be adapted for the study of ancient textiles and his tripartite structure for sources of dress has recently been employed with increasing enthusiasm in the study of Roman dress.[8]

For Barthes, clothing has three modalities: real clothing, clothing portrayed through images ('image-clothing') and clothing that is described in text ('written clothing').[9] This identification of the three constituent parts of clothing into three 'versions' of a garment is perhaps the most influential aspect of Barthes' formulation of fashion as a system: his tripartite scheme can also be neatly mapped onto the types of dress evidence used by dress historians.[10] The first of these categories refers to the actual textile itself – the 'technological' garment – while the other two – the 'iconic' and 'verbal' garments – can be understood as 'represented' clothing. Importantly, though, these two groups of represented clothing do not operate in an identical way; one is a system of images, the other a system of language. In fact, while they refer to the same reality – that is, dress experience – image-clothing and written clothing can inherently convey different ideas and details about the 'original' real garment and in so doing overwrite these ideas. Furthermore, they are not identical to the physical textile itself and can never fully encapsulate the reality of the actual garment; instead, they serve to signify different facets of the original textile and thus offer the modern scholar insights into the rhetoric of contemporary dress.

Knowledge of the structural and technical practicalities of Roman clothing has been enhanced by the developments in Roman textile research. Working from an extensive body of preserved archaeological fragments, this research throws fresh light on the material reality of Roman dress, offering insight into such things as yarn type, weaving technologies, dyeing techniques and decoration.[11] These details are important when exploring Roman dress. Yet, as Barthes' clothing system demonstrates, the technicalities of the garment run along parallel lines to that of the clothing

portrayed in the iconography. This paper focuses on the way clothing has been represented, on the translation of the garment as worn on the body into visual representations of the clothed body. Given how few textiles survive within the archaeological record in large parts of the Roman world, other dress sources inevitably come to the fore. This in not in itself a disadvantage: as Caroline Vout notes, the study of Roman dress is 'not a study of the clothes themselves but of the images of clothes, not a study of how Roman people looked but of how they perceived or defined themselves as looking'.[12] Ursula Rothe draws a similar conclusion in her study of 1st- to 4th-century CE funerary monuments in the Rhine-Moselle region, arguing that elements of selection and standardisation do not preclude these images being at the same time artefacts of how the people viewed themselves.[13]

According to Barthes' framework, the signals given out by 'represented' garments are governed by their respective structures. How Barthes constructs that interpretative structure is therefore a significant part of his methodology. For written clothing, the transformation of textiles into language through description or a photograph caption limits the number of potential meanings: 'words determine a single certainty'.[14] Barthes' comment referred to fashion photographs, a genre bound by its own agenda and language. As such, the written clothing which evokes the original technological garment (Barthes calls this the 'Fashion description') must describe this real clothing accordingly.[15] In the context of ancient textiles, written clothing is more akin to Barthes' 'literary description' where references to 'real' garments – whether through specific textile terminology, garment names or recognisable associations – are needed to make the garment exist for the reader. In many cases, though, the primary intention behind the written clothing discourse was not necessarily to debate dressing habits *per se*. The writings of authors like Tertullian or Cyprian of Carthage make the overt language of clothing a proxy for debating wider social anxieties. An example of this is the debate about gender dynamics achieved through Patristic recommendations of female dress practices, particularly those that promote female modesty in both dress and action.[16]

Effectively, verbal clothing reveals relevant socio-cultural associations through reference to specific articles of clothing or modes of dress. Visual media works similarly but offers far more possible meanings for image-clothing than does text, with its finite number of possible meanings. As Barthes writes, 'we know that in fact an image inevitably involves several levels of perception … every glance cast at an image inevitably implies a decision i.e. the meaning of an image is never certain … The image freezes an endless number of possibilities'.[17] Of course, the iconic garment created does not have to exist in a physical sense: it must merely be acknowledged by its audience as a reflection of cultural norms and practice. A pertinent example of this is the proliferation of Roman statues clad in *togas* as a result of the 'public and status-orientated nature of Roman art'.[18] As static modes of expression, these cultural artefacts performed a particular function and were subject to stylistic conventions and social expectations.[19] Public visual imagery of this kind displayed clothing practices deemed suitable for public consumption.[20] Although they might offer something worthy of imitation by reinforcing social and gender ideals, it is important to remember that 'it was never the primary aim of any artistic medium to render detailed representations of either Roman clothing, or of any other textiles'.[21] Visual dress was not intended to be copied in everyday life; instead, the ideas embedded within the imagery were meant to be absorbed and emulated by the wider social body.[22] This does not diminish the contribution made by visual media to the discussion of Roman textiles; instead, it thereby becomes an artefact that sheds light upon how the Romans visualised clothing, how the viewers responded to such depictions and, most significantly, how visual clothing functioned as a means of communication.[23]

There are, therefore, multiple versions of Roman dress rhetoric reflected in the different types of sources. These discourses take many different forms and run parallel to one another but at the same time still bear some relationship to each other insofar as they originate from the same composite system, *i.e.* the social reality of Roman sartorial fashions. Dress imagery represents clothing practice translated into the visual sphere. That being so, the image-conscious clothing portrayed in mosaics was surely governed by the relevant traditions of that artistic genre which, in turn, conditioned how image-clothing was constructed, displayed and interpreted. Ultimately, mosaic pavements are not exact records of the later Roman textile reality: this would be a far too literal interpretation of their imagery. Instead, such iconography should be appreciated as artefacts of a clothing discourse which reflects visual clothing as experienced in the context of contemporary societal discourse.

Clothing imagery in North African mosaics: Two case studies

Two well-known North African mosaics, the Dominus Julius Mosaic and the Tabarka *villa rustica* mosaic panel, both discussed below, illustrate the methodological issues involved in synthesising visual depictions of dress. These mosaics are frequently referred to in discussions of elite life, primarily because they showcase the world of rich African aristocrats. Scholars have suggested varying degrees of realism for the designs on the mosaics. Roger Wilson, for example, argues that generic representations of large houses and grounds were valued forms of iconography, producing desirable statements of wealth and status.[24] Katherine Dunbabin, by contrast, views such depictions as actual images of real places, basing her argument on the lack of conventional motifs included in their portrayal.[25]

The true position is likely to lie somewhere between these two interpretations. Clothing, as will be argued below, contributed to how viewers interpreted the imagery by framing the iconographic message within dominant cultural ideals. Both mosaics were excavated from urban settings, yet the mosaic iconography advertises elite *otium* – a somewhat ambiguous Latin term broadly denoting a sense of leisure or freedom.[26] The mosaic pavements transport the viewer into this rural ideal, communicating associated cultural connotations and core values.[27] In this respect, these mosaics were manifestations of a discourse that increasingly defined elite identity. Details of dress in the iconography contributed to this strategy of elite self-representation and thus can be seen as artefacts of an image-clothing rhetoric.

Dominus Julius Mosaic: Reinforcing social distinction through clothing

The desire to visualise aspects of the elite experience on mosaic floors can be seen in North African pavements that directly commemorate the patron's lifestyle. This ideal was neatly encapsulated by the well-known Dominus Julius Mosaic which portrays a version of the rural idyll even though found in an urban setting (Fig. 13.1).[28] Very little is known about the original archaeological context, although it has been suggested that the mosaic floor once decorated a room with a fountain.[29] Dating to around 380–400 CE, this vast mosaic (4.5 × 5.65 m) is composed of three registers of small vignettes organised around an image of a substantial building which dominates the landscape.[30] These vignettes anchor the imagery as the representation of the elite *habitus* by including activities associated with its inhabitants and the estate's productivity. In the upper left corner, a male servant carries two ducks. There are also peasants gathering olives in a basket. A female servant offers a basket full of olives to the *domina* who is seated under the shade of the cypress trees (Fig. 13.2). In the same row, another servant brings the *domina* a lamb while to the right of this scene a shepherd watches his flock. Flanking the estate in the centre is a mounted rider on the left, the *dominus*. He is accompanied by a servant. On the other side of this impressive structure are two hunters who appear to be leaving the

Fig. 13.1. Depiction of the Dominus Julius estate with various scenes of agricultural activities and rural life from Carthage, c. *380–400 CE. Musée du Bardo, Tunis, inv. no. 1. Photo: Sean Leatherbury/Manar al-Athar (CC BY-NC-SA 2.0).*

house with their hunting dogs. Imagery in the lower row also reinforces the performance of rural *otium*. The *domina* appears again on the left (Fig. 13.3). She leans against a column while her attendant offers her a necklace from a jewellery box. In the far right, a person carries a basket of roses. The other scene in this row depicts the seated *dominus* who receives a scroll from a figure. Completing this scene is another worker. He carries a basket and grasps a rabbit by the hind legs.

This mosaic, though composed of rather commonplace imagery, has adopted an unconventional format to produce a more personalised and selective approach to mosaic motifs.[31] With the use of superimposed levels, the design amalgamates aspects of estate life in one single artistic snapshot. The primary iconographic message is that of the leisurely lifestyle of the rural elite – no doubt due to the wealth of the estate – and this is exaggerated through the repeated depiction of the elite couple alongside their numerous workers. The imagery revolves around the *dominus* and *domina* and this confirms their superior status.[32] The patrons are either approached by the other figures who produce gifts for the *domini* or, in the case of the middle level, by an attendant who walks besides the *dominus* who is shown mounted on a horse.

The way the figures in the Dominus Julius Mosaic are dressed would have reinforced social distinction and reaffirmed the elite position of the patron and his family. In both of his visual depictions, the *dominus* is garbed in an ornamented *tunica strictoria* (a long-sleeved tunic). Clothed in these long voluminous tunics, the master is certainly not dressed for manual labour; his costume matches his leisured pose. His long tunic contrasts to the short garments worn by the labourers who are engaged in agricultural activities. Both *dominus* and workers wear the same tunic type – the *tunica strictoria* – so it is not the garment type but its variable length that signifies social status and occupation. The viewer is invited to reflect upon the differences in status between the *dominus* and his workers through reflecting on their clothing. This is not to say that patrons would commission imagery that depicted their labourers in rags, far from it. Since the *dominus* provided his servants with their wardrobe, the way workers were dressed in visual media was a direct reflection of the master's social position: ornate, but socially relevant, dress was therefore an effective way of claiming elite status.[33] Somewhat surprisingly it is the labourers' clothing that is colourful, rather than the *dominus* (or the *domina* for that matter). Again, the decision to present the figures in this way might be another mechanism for communicating status since white clothing was more expensive to maintain.[34] Furthermore, the range of coloured clothing supplied to estate workers would be seen as yet another sign of wealth.

Fig. 13.2. Seated domina *under the shade of a cypress tree in the upper register of the Dominus Julius Mosaic, from Carthage,* c. *380–400 CE. Musée du Bardo, Tunis, inv. no. 1. Photo: Sean Leatherbury/Manar al-Athar (CC BY-NC-SA 2.0).*

Not surprisingly in a floor pavement designed to show aspects of the elite world, the *domina* also uses her clothing to signal status. While her use of heavy jewellery immediately displays her wealth and brings to mind traditional Venus motifs – she wears a double-rowed necklace but is also shown in the process of accepting an additional necklace from her attendant – there is more subtle dress rhetoric at play to mark social difference.[35] In the upper scene, the *domina* is depicted wearing a short-sleeved tunic decorated with thin monochrome *clavi* (vertical decorative stripes).[36] Her figure is accentuated by the thinness of her gauzy garment which falls slightly down, revealing her shoulder. Perhaps this is meant to imply a silk tunic – another marker of her wealth. The *domina* is portrayed again in the lower level but her appearance is notably individualised and different from her portrayal in the upper one. Here, she is shown wearing a thin *tunica strictoria* decorated with continuous *clavi* that run from the shoulder to a floor-length hem. She leans on a pillar and accepts a necklace from her attendant who holds a jewellery box. This attendant is clothed also in a *tunica strictoria* which is worn under a *tunica dalmatica* (a type of tunic with wide long-sleeves). While this might at first suggest social distinction, this attendant is given a somewhat anonymous characterisation as her appearance is very similar to that of the female attendant in the upper level who carries a basket. A lack of individual stylisation is also apparent in the depiction of the *clavi* on this mosaic floor, although all *clavi* are monochrome. Despite wearing different types of tunic, the *clavi* decorating the attendants' tunics is identical and less ornate than that worn by the *domina*. This may be an attempt to replicate a bar stripe *clavi* on the attendants' tunics, which contrast to the block check design depicted on the *domina*'s *clavi*.[37] The mosaic iconography was intended to communicate some sort of distinction in *clavi* design. Furthermore, the voluminous sleeves of the attendant's *tunica dalmatica* are tied under the bust, a feature which suggests that this is designed to aid movement.[38] The female attendant's dress therefore reiterates her social position in contrast to the *domina* whose leisured lifestyle does not require such clothing adaptions. As a *graffito* from the forum at Timgad declares, *venari lavari ludere ridere occ est vivere*, 'hunting, bathing, playing, laughing, that is living' (CIL 8.17938).[39] At the same time, the social

Fig. 13.3. Standing domina *leaning against a pillar and accompanied by her attendant in the lower register of the Dominus Julius Mosaic from Carthage,* c. *380–400 CE. Musée du Bardo, Tunis, inv. no. 1. Photo: Sean Leatherbury/Manar al-Athar (CC BY-NC-SA 2.0).*

position of the domestic attendants who wear long tunics is also contrasted to that of the labourers whose agricultural role necessitated shorter garments. Overall, the repertoire of clothing presented by this image-clothing enhances the *domina*'s clothing display, highlighting not only her ability to alter her own costume as desired (a consequence of her leisure time) but also her ability to dress her attendants in different costumes according to their social status and identity which, in turn, reflect back on the status of the *dominus* and *domina*.

Tabarka villa rustica panel: Reaffirming social status through textile activity

The second example of how clothing in mosaics related to the elite lifestyle is seen in a suburban apse mosaic from Tabarka (Fig. 13.4).[40] Located west of Carthage, Tabarka, ancient *Thabraca*, was situated along the coastal road (Plin. *NH* 5.22). This panel is a *trifolium* apse mosaic arranged around a dining room in a building complex dated to around 400 CE.[41] This central dining space was decorated with a mosaic pavement that depicted scenes of hunting – another appropriate elite pursuit.[42] Unfortunately, only the reception space was excavated and recorded by Toutain and Pradére in 1890, but the scale of the room and the ornate mosaic floors suggest they belonged to a substantial building.[43] As a whole, these apse mosaics showcase traditional aspects of a rural estate, echoing Columella's earlier tripartite division: the *villa urbana*, *villa fructuaria* and the *villa rustica* (*Rust.* 1.6), referring respectively to the *villa* estate's dwelling space, the storehouse and the production quarter.[44] The composition of each panel depicts a central structure supplemented by thematically suitable flora and fauna to help with the interpretation. It is clear that these pavements were intended to be viewed as a whole.

Of the three panels, the floor mosaic most relevant to this discussion about the interpretation of mosaic iconography, identity construction and elite performance is the *villa rustica*. In this, the central building is flanked by agricultural scenes including trees and vines. A horse is tethered to the right of the complex. In the background, birds are scattered across a hilly landscape. The imagery in the foreground is obscured by damage to the mosaic but a seated figure is visible on the left and there are sheep below her. It is

Fig. 13.4. Villa Rustica *mosaic showing a rural scene dominated by a central building with supplementary rural scenes from Tabarka,* c. *400 CE. Musée du Bardo, Tunis, inv. no. A27. Photo: Sean Leatherbury/Manar al-Athar (CC BY-NC-SA 2.0).*

the seated woman that is of particular interest (Fig. 13.5). Significantly, she is the only figure depicted on these three apse floors.[45]

The Tabarka mosaic offers a more nuanced example of the language of contemporary dress and the intricacies of matching visual imagery with social reality. The *villa rustica* mosaic from Tabarka has only one preserved figure whose identity is at first sight ambiguous. Nevertheless, there are clues to be found in the details of the clothing that both promote the iconographic narrative in this floor pavement and provide a greater insight into how image-clothing reflected prominent cultural values. The sole figure is shown in the process of drop-spinning, as is indicated by the spindle and distaff. The woman's size, in comparison to the rest of the scene, and her posture, suggest that she is a part of the narrative rather than a principal character; the central building remains the iconographic focus. The presence of the woman spinning steers the viewer's interpretation towards identifying this panel as corresponding to the *pars rustica*. The figure has conventionally been identified as a shepherdess.[46] Although this interpretation at first appears logical, given the presence of the flock of sheep, it is too literal and does not account for the figure's clothing. This woman is dressed in a short-sleeved tunic which is decorated with continuous striped *clavi* that run the length of her garment. There is matching decoration on her sleeves. Her clothing appears too fine for that of a shepherdess but at the same time too plain for that of a wealthy *domina*, if the dress of the *domina* on the Dominus Julius Mosaic is accepted as being typical of visual clothing for elite women.

Fig. 13.5. Depiction of a female leisurely spinning while seated on a rock in the villa rustica *mosaic from Tabarka*, c. *400 CE. Musée du Bardo, Tunis, inv. no. A27. Photo: Sean Leatherbury/Manar al-Athar (CC BY-NC-SA 2.0).*

However, a closer examination of the way the spinning woman's clothing has been portrayed, together with a consideration of the theme of the mosaic, reveals that her wardrobe has in fact been carefully constructed. Her image is a carefully selective portrayal. Variations in the colour of the *tesserae* (the pieces of mosaic) give body to the figure under the clothing and help to accentuate the leisurely nature of her actions. Only a small element of the overall mosaic design remains; nevertheless, the woman's costume speaks volumes to the viewer. Although this portrayal of the spinning woman calls to mind the attendant in the lower level of the Dominus Julius Mosaic, her posture evokes a sense of elite *otium* as she sits to one side of the agricultural scene. Her actions may look like a form of manual work but they are unhurried and in direct contrast to the movement of the animals elsewhere in the scene. Unlike the first example from Carthage, this figure should not be interpreted as a straight depiction of a particular individual; instead, it should be viewed as an embodiment of an ideal of elite behaviour, *lanificium* (wool working).

The ideal of the virtuous Roman *matrona* spinning had a long and established history in Roman cultural discourse by the 4th century.[47] This cultural association carried on into the 5th century as a letter from Jerome to the wealthy ascetic Demetrias outlining suitable behaviours shows (*Ep.* 130.15). Images of *matronae* spinning or weaving were not necessarily intended to document actual female activities – although this possibility cannot be discounted – but rather to showcase female and gender appropriate roles.[48] Set within a wider discourse about feminine virtues which paradoxically presented wealthy *matronae* as modest both in character and by their rejection of *luxuria*, the wearing of modest clothing became part and parcel of the cultural uniform expected of this idealistic practice.[49] Such an interpretation is further confirmed by the depiction of the *matrona*'s head covering, one typically worn by married women as an outward sign of modesty.[50]

At Tabarka, the spinning female is depicted inhabiting her feminine ideal – the domestic space – and her clothing therefore reflects a fashion appropriate for this context. In fact, this modest clothing actually transports the literal interpretation of the imagery into the realm of idealisation and cultural construction. She does not hide away in a weaving room, as is implied by Sidonius' vivid and dramatic portrayal of his villa (*Epist.* 2.2.9) but acts as an active caricature in the villa scene. The inclusion of this spinning figure reveals an

aspect of female activity, her *lanificium*, that can potentially take place on these great African estates, even if only on a visual level. Such a representation also demonstrates the coexisting properties of identity markers and the emphasis of certain characteristics through the clothing forms chosen.

Visual imagery: Embodying the elite lifestyle through mosaic pavement

Mosaics are undoubtedly one of the most recognisable artefacts of Roman visual culture. Excavated throughout the Roman world – from the far reaches of Britannia to the Syrian deserts – mosaic floors were a shared and popular form of self-expression.[51] Frequently employed as decoration in domestic spaces in the urban *domus* or the rural *villa*, mosaics were interactive decorative features.[52] The Roman *domus*, as the locus of the proprietor's social, political and business activities, framed and choreographed social interactions.[53] Research into housing in *Africa Proconsularis* highlights a decided preference for reception rooms, with some residences found to have multiple such spaces.[54] A critical survey of North African mosaics also reveals an underlying desire to make patrons present in mosaic designs.[55] Despite a growing body of scholarship examining the complexities of ancient dress, research that focuses on non-textiles routinely treats dress in mosaic images in one of two ways.[56] In the first, clothing is treated as a passive, incidental element of the mosaic design, carried out with little care for its execution. As such, clothing is neither explicitly mentioned nor described and is not seen to contextualise the imagery beyond the basic characterisation of figures.[57] In the second, imagery is interpreted as a direct record of reality, with the assumption that such pavements accurately showcase dress as it was once worn. Clothing details are therefore used to establish chronology.[58] Neither approach fully appreciates the complexities of reading mosaic dress, nor appreciates that, as 'image-clothing', mosaic iconography reflects a particular version of the language of dress.

Both the Dominus Julius Mosaic and the Tabarka *villa rustica* mosaic, despite being excavated from urban contexts, evoke elite *otium* and transport the viewer into this social landscape. As such, these images do not depict a literal environment but an elite world in which the patron was thought to inhabit and operate.[59] As Brown remarks, this is 'art *by* the rich that was devoted with particular zest to the theme of *being* rich'.[60] Of course, both the subject and medium reinforced notions of status and prestige. A vivid episode from the 5th-century poet Luxorius recalls how Fridamal – presumably his patron – commissioned an '*imago*' of himself killing a boar.[61] While Chiara Tomassi Moreschini follows Dunbabin in viewing these African genre motifs as having a 'fantastic style' due to the increasingly 'unrealistic' compositions and animal groupings, this perspective plays down the self-promotional benefit of such images, especially given that this ingenious portrayal explicitly singles out Fridamal's mosaic from the other artworks.[62] Increasing cultural value was placed upon representing the patron's *habitus*; that this was achieved through mosaic pavements and echoed in visualisations of clothing demonstrates the symbolic function of dress.

It cannot be assumed that the ubiquity of mosaic floors as a mode of elite competition made them any the less effective strategies of elite self-expression, nor that these categories of mosaic motif therefore faded into the architectural background. Rather, the opposite is true. The consumption of such artefacts by other elites fuelled the proliferation of these scenes and reaffirmed the association between the elite lifestyle, mosaics and elite activities. In doing so, it blurred the lines between realism and representation. These images provided imitations of elite pursuits, not factual impressions, but were produced with the appropriate degree of thematic realism to communicate with the viewer. In a similar way, the clothing imagery in visual media were not exact translations of real garments but examples of image-clothing that documented a version of sartorial practice enacted out in the visual sphere. As with mosaic iconography, dress imagery in these mosaic pavements would present acceptable clothing fashions, even if they formed exaggerations or sartorial idealisations.

Conclusion: Understanding the context of dress imagery in mosaic iconography

Mosaic iconography was a familiar means of elite self-expression and it was that iconography as well as the ideas and ideals encoded in mosaic designs that reaffirmed elite culture. This conclusion is supported by the critical examination of the language of dress embedded in mosaic iconography. Dress, as represented in mosaics, contributed to the display of elite behaviours and was itself an arena for social display. Elite status was reinforced through clothing hierarchies; and clothing functioned as a means of social competition. Rather than being seen as direct statements of clothing practices, the dress images constructed in mosaic floors showcase 'acceptable' characteristics for dress in the visual sphere and thus document dress strategies which are bound by their own internal logic. This body of 'image-clothing' sits alongside other type of dress evidence. In this way, the *domina* on the Dominus Julius Mosaic presents the best 'version' of herself, an image that would be instantly recognisable to her viewer but nonetheless a constructed caricature of her identity. Her husband exhibits a similar caricature and his clothing reaffirms his social position rather than his actual sartorial reality. Similarly, the lone spinning female from Tabarka does not depict a real individual; instead, she acts as the embodiment of the Roman *matrona* engaged in her *lanificium*. However, without an understanding of the catalogue

of cultural intricacies that enabled contemporary society to recognise the artistic imagery, the modern viewer is likely to view mosaic floors solely as decorative vignettes. Frequently divorced from their original architectural contexts and displayed in museums, these mosaic floors belong to a world that has to be seen in a different context: clothing was an active component of mosaic iconography and as such provides another means of investigating mosaic imagery and providing insights into the elite world that that imagery evokes.

Deciphering textile imagery from extant textile iconography is not a precise science. Many methodological issues affect the simplistic extraction of styles of dress from clothing visualisations. Nonetheless, scholars should not dismiss all iconographic depictions of dress as being devoid of authenticity. The Roman viewer was adept at reading these cultural clues. The clothing depicted on mosaic floors takes the form of image-clothing, a version of the late Roman dress codes transported and translated via visual media. Although such examples are visually encoded and infused with a considerable degree of idealisation, as versions of elite activity they provide some insights into the study of Roman dress. Clothing as portrayed in mosaics filtered into the elite experience of dress as the negotiation of clothing behaviours appropriate to different contexts. Mosaic dress articulated important cultural associations. Such examples therefore offer significant insights into an important aspect of Roman dress.

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Notes

1 Harlow (2012a, 1).
2 The most extensive body of archaeological textiles comes from various sites across Egypt, see Schrenk (2006). The study of Egyptian textile remains has enhanced the knowledge of processes of textile production and structural elements of the textiles themselves, *e.g.* Pritchard (2006); de Moor and Fluck (2011); de Moor *et al.* (2013; 2016).
3 Wilson (2002; 2004) for textile production evidence in North Africa.
4 Brown (2012, 192–193).
5 There are exceptions which comprehensively examine dress in mosaic imagery but do not exclusively theorise the relationship between dress imagery and social reality, *e.g.* Rinaldi (1964–1965) for the study of clothing at Piazza. Beschaouch (1966) for Chasse amphitheatre, Armerina and Steinberg (2020) for the historical-geographic region of Eretz Israel including the sites of Beit She'an, Beit Guvrin, Beit Alpha, Gaza Maiumas, Zippori, Hammat Tiberias, Merot, Khirbet Wadi Hammam, Huqoq, Kissufim, Kibbutz Erez, Caesarea, Tel Malhata, Horvat Beit Loya, Be'er Shem'a, Ein Ya'el, Khirbet Mukhayyat, Jerash, Madaba, Mount Nebo, En Nashut, Sepphoris and Jerusalem.
6 This discussion focuses on mosaics from domestic contexts. Other types of mosaic pavement, such as Christian funerary mosaics, *e.g.* Downs (2007), bring with them a different set of traditions and values which greatly impact clothing imagery.
7 See Trimble (2017, 348–352) for a discussion of the modern viewing of Roman portrait statues.
8 Harlow (2012b); Rollason (2016).
9 Barthes (2010, 3–4).
10 Harlow (2012b, 38).
11 *E.g.* Granger-Taylor (1982); Handley (2017). See also papers in Alfaro *et al.* (2004; 2011); Alfaro and Karali (2008). The synthesis of some museum collections is, of course, impeded by a lack of contextual information and a tendency of early collectors to preserve embellished or ornate textile fragments, Morgan (2018, 148).
12 Vout (1996, 206).
13 Rothe (2009, 29–30).
14 Barthes (2010, 13).
15 Barthes (2010, 12–13).
16 In particular, Tertullian's *De Cultu Feminarum* and *De Virginibus Velandis* and Cyprian's *De Habitu Virginum* reveal underlying social anxiety about what changes to female attire (as a direct reflection of female practice) meant for the normative social structures. Daniel-Hughes (2010; 2011).
17 Barthes (2010, 13).
18 Stone (1994, 23).
19 Harlow (2012a, 1; 2012b, 38).
20 Davies (2005, 121; 2018) for the study of Roman statuary and body language.
21 Larsson Lovén (2014, 261; 2017, 135).
22 Larsson Lovén (2017, 146).
23 Larsson Lovén (2017); Larsson Lovén (2014) for discussion of the value of textile details in Roman art generally.
24 Wilson (2018, 276).
25 Dunbabin (1978, 122). Also Ennaïfer (1995); Nevett (2010) for a similar view that such mosaics offer an accurate picture of late Roman North Africa.
26 Fagan (2006, 369–371).
27 Nevett (2010, 158).
28 Dunbabin (1978 Carthage no. 32).
29 Morvillez (2004); Merlin (1921).
30 Merlin (1921, 95); Nevett (2010, 121). Merlin initially suggested a 4th century date for the mosaic, but subsequent interpretations have pinpointed the dating to the end of the 4th century.
31 Dunbabin (1978, 24–26).
32 Nevett (2010, 152); Muth (2015, 420).
33 George (2002, 43–44); Steinberg (2020, 92).
34 Bradley (2002); Olson (2017, 114).
35 Merlin (1921, 109 n. 4).
36 Bender Jørgensen (2011) for discussion of *clavi* terminology. The type of *clavi* here cannot be precisely identified but the

image was intended to show a thin, and likely continuous, design.

37 Again, the design of this *clavi* is difficult to identify from the image alone but an ornate pattern is suggested.

38 Harlow (2004, 207).

39 Translation by Purcell (1995).

40 Dunbabin (1978, Tabarka no. 1).

41 Gauckler (1910, 303–305).

42 Dunbabin (1978, 122); Nevett (2010, 155); Wilson (2018, 276).

43 Toutain (1892, 198).

44 Hirschfeld (1999, 265); Zarmakoupi (2014, 366).

45 Nevett (2010, 136).

46 Lavin (1963, 239); Dunbabin (1978, 122); Ennaïfer (1995, 177); Nevett (2010, 136).

47 As early as the *Odyssey*, Telemachus characterised his mother Penelope's duties in terms of her domestic activities, making specific reference to the loom and distaff, Cohen (1995). The symbolic and moral dimension to this textile work was further immortalised by the story of the virtuous Lucretia, as recounted by Livy, and embodied by Augustus' wife Livia who was said to produce clothing for the Imperial household (Livy 1.57; Suet. *Aug* 74). All references to ancient works and inscriptions used here follow the guidelines of the *Oxford Classical Dictionary* (fourth edition, 2012).

48 Larsson Lovén (1998). For the problems of relating literary and epigraphic evidence for female textile production to actual practice, Larsson Lovén (2013).

49 Edwards (1993, 26) frames moral rectitude as 'symbolic capital'.

50 Sebesta (1994, 48–49).

51 Scott (1997, 64); Dunbabin (1999, 1).

52 Muth (2015, 407). Also Thébert (1987), Ellis (1991; 1997).

53 Wallace-Hadrill (1988, 55–56).

54 Ghedini and Bullo (2007). Also Carucci (2007) for an examination of the Romano-African *domus*.

55 *E.g.* Dunbabin (1978); Sarnowski (1978).

56 There is now an extensive literature on the relationship between ancient dress and identity, in particular, Edmondson and Keith (2008); Harlow and Nosch (2014).

57 Symptomatic of this current lack of critical exploration in scholarship is Roger Ling's chapter on mosaics in the *Blackwell Companion to Roman Art* (2015) which includes no reference to clothing, Ling (2015). In contrast, Jane Fejfer's contribution to the same volume, which explores Roman portraits, reflects upon the relationship between statuary, clothing and the production of visual role models, Fejfer (2015).

58 Dunbabin (1978, 32). Examples include Ville (1965) on the Zliten Gladiator Mosaic, Ville (1967–1968) and Picard (1985) for the costuming of figures of Silin Bull mosaic; and Picard (1941) for using hairstyles to date a mosaic from Ellès. This of course presumes that such mosaics depict contemporary fashions.

59 Whereas in the 1st and 2nd centuries CE North Africa saw a proliferation of mythological or allegorical imagery such as seasons or temporal themes, the 3rd to 5th centuries saw an increasing preference for genre scenes, such as aristocratic hunting activities, rural settings and marine scenes. This so-called 'African style' is a striking feature of the North African mosaic corpus and was characterised by designs comprised of small episodes spread in levels across a white background or with a freer distribution, Février (1983, 160–161). Also Parrish (1984) who discusses seasonal imagery; Dunbabin (1978, 46–64) who examines hunting motifs; and Dunbabin (1978, 109–123) for rural scenes.

60 Brown (2012, 194), his emphasis.

61 *Anthologia Latina* 304, translated Rosenblum (1961).

62 Dunbabin (1978, 53); Tommasi Moreschini (2010, 268); Wasyl (2011, 212–213).

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Chapter 14

Epilogue

Mary Harlow

In the late summer of 2013 Marie-Louise Nosch and I wrote an introductory chapter with the improbably long title of 'Weaving the threads: Methodologies in textile and dress research for the Greek and Roman world – the state of the art and the case for cross-disciplinarity'.[1] In writing it we were excited and optimistic about the current state of research at that time, but we could not have predicted the explosion of textile-related scholarship which has appeared since then.[2] The chapters in this volume add hugely to this rich vein of study. Moreover, the focus on the iconography (in its widest definitions) makes this volume particularly relevant at this moment. For a general audience it is often images of textiles and the bodies and furniture they adorn which are the starting point of interest in ancient societies. Art and material culture are the media which dominate our visual imagining of antiquity. In my opinion, it is the job of those who study the past to make it come alive in the most authentic ways for a modern audience. As iconography is often the first step in this process for an uninformed viewer, it is important to ensure, as the authors herein have achieved, that it is well researched and clearly communicated. In this past year of isolation and pandemic, visual imagery in the form of online, television and even occasionally paper content has become very dominant, often without an informed commentary alongside it. It has been said many times, not least by me, that any writing about textiles is about so much more than just textiles. Textiles and clothing in their material form and in their representations create a non-verbal language; they communicate a myriad of messages defining status, gender, trade, communication, ethnicity, religious affiliation, ritual, technology and techniques. To that end, I would encourage those of you who might, like me, tend to read only the chapters in collected volumes which appeal directly to your own research and simply skim the others or 'save them for later', to find time to read this book from cover to cover. The varied approaches and subjects investigated here, particularly in areas that are unfamiliar, will challenge and stimulate thinking in your own corner of interest and repay your time.

This chapter has been conceived as a brief epilogue to the volume and will highlight some of the overarching themes which interweave across the various chapters. The study of textiles has been impressively successful in encouraging the breakdown of traditional academic disciplinary boundaries as the need to understand the effects of textile production (the material object) with the way textiles/dress are written about (written dress) and the way they are depicted (image-clothing) with all the conventions which surround those readings has become the standard for robust research. Several scholars in the volume address the influence of Roland Barthes' *Système de la Mode* (1967) on approaches to the study of dress in the past (*e.g.* Place, Brøns, Martin, following Cleland).[3] To take such a holistic view often requires scholars to step outside their disciplinary comfort zone and address the conventions of an unfamiliar area. As Marie-Louise Nosch and I argued, we cannot all be experts in everything but we can learn from each other and be open to the new knowledge that cross-disciplinary research generates, and we can, as chapters here demonstrate, absorb the methodologies of cognate disciplines and actively engage with our colleagues in those disciplines. It is this collegiate nature of research which makes working in the field of textile studies in any sub-specialism so rewarding.

In this volume Susanna Harris fluently articulates the 'textile approach', placing textiles or the representation of them at the forefront of any interpretation. Her detailed

analysis of the Phrasikleia Kore and the 'Kore wearing a *chiton*' demonstrate how the meticulous application of such an approach can identify new understandings of both garments and textiles on such well-known and well-documented statuary. In taking on board this type of analysis we begin to look differently at art and artefacts, we educate our 'ways of seeing'.[4] Magdalena Öhrman uses her expertise in Latin literature as an informed way of re-examining the frieze in the Forum Transitorium which depicts several scenes of textile work involving the two-beam loom. Öhrman's work is expanded by including experimental archaeology which provides new insights on what the iconography of the frieze might be depicting and how late 1st-century contemporaries might have understood the intended propaganda messages. This combination of traditional academic knowledge with experimental archaeology – a joining of the library with the practical – is evident across several of the chapters. Scholars are reading iconography anew in the light of their experience with textile production. Such in-depth knowledge of textile process is apparent in Agata Ulanowska's chapter which considers very small-scale representations of a range of potential textile-related motifs. Informed by a thorough understanding of textile production in the Cretan Middle Bronze Age, Ulanowska has created a challenging reading of previously understudied or misunderstood images, which in turn can illuminate the importance of textile production to ancient societies. Similarly, Thaddeus Nelson provides an alternative reading for the lyre on some Iron Age II Levantine images which he interprets as frames for sprang – a technique known in neighbouring areas but not yet recognised in the Levant. As he points out, this new interpretation has ramifications for broader understanding of the period and the geographical area. This is precisely what we should be aiming at – textile scholars who will change the narratives which dominate our understanding of the past and the history of textile production and its social and economic ramifications. Economically and socially, textile histories are arguably as important as military and political histories, but textile research is not yet held in that regard.

The consideration of colour which has been transformative of our understanding of the visual culture of the past is a case in point. Such knowledge is still slowly, slowly working its way into museums, galleries and the public perceptions of ancient life, but it is happening. In this volume research is exemplified by Cecilie Brøns and Daphne D. Martin. Cecilie Brøns brings together current polychromy research on gilded sculpture, archaeological textiles which show evidence of the use of gold, literary and epigraphic references to golden textiles and workers in gold in an impressive piece of cross-disciplinary research. In amalgamating so many sources, Brøns demonstrates that use of gold and fake gold in antiquity might be more widespread than previously thought. Daphne D. Martin looks specifically at *krokotos*, a saffron yellow textile, and its relationship to the cult of Artemis Brauronia. She too combines text and image to argue her case, adding a new depth of interpretation to Brinkmann's analysis of the polychromy of the Peplos Kore, and to identify her as Artemis. In these two cases, the combination of written, iconographic and archaeological material complements each other, providing scholars with springboards for new potential interpretations. However, not all scholars have such amenable evidence.

As nearly everyone notes, archaeological remains of textiles are few, far between and fragmentary and thus difficult to align with images of particular garments or furnishing textiles. Dimitra Andrianou's extensive catalogue of textile furnishings bring Classical and Hellenistic interiors to life by combining a range of literary references with iconographic examples from a number of contexts. Kelly Olson's examination of fringed garments in Classical art stresses the fact that the written and iconographic examples do not always marry. While fringed garments appear in ancient art it is difficult to find the terminology which might describe them. Items which are identified as fringed in literature are not identifiable in the iconography. Terminology and identification of particular garments/textiles/methods of production remain an issue, as does the translation of terms into our own varied languages. Brøns reminds us that translations are often responsible for long-lasting misunderstandings of particular techniques or styles of dress – as are generic terms.[5] Embroidery, for instance, is a very rare technique for the period covered by this volume but some scholars still use the term without clearly defining what they mean. The method of adding decoration by sewing onto and into a ready woven textile (embroidery) is worthy of comment precisely because it is unusual in a period when most decoration is woven in.[6] Likewise, while there is comparatively speaking relatively little change in shape in garment type in the woven-to-shape world of antiquity, clothing did not remain static. External influences, new materials, new ways of decorating textiles and new technology brought change and transformation that are worthy of note (Öhrman, Żuchowska).

The final theme that should be mentioned is the fluid relationship between representations and reality. Paintings and sculpture present us with more or less recognisable images and with some imagery it is easy to be seduced into imagining it is a reflection of real life, or life as we would like to imagine it. All the images we see in this volume are constructed within particular historic and social contexts. We are viewing carefully constructed realities. They possess elements of realism, often in very schematic forms. From

writing as script with an apparently recognisable logogram of cloth (TELA, Rachele Pierini) to the glyptics of the Aegean Bronze Age (Ulanowska) to the funerary reliefs of Palmyra (Marta Żuchowska) and mosaics of Roman North Africa in the early centuries CE (Amy Place), we are looking at very different ways of seeing which demand contextualisation in order to be fully understood.

Ricardo Basso Rial, Marta Żuchowska and Amy Place deal with issues of context and representational reality while looking at contrasting evidence. Iconography which underlines gender roles is practically *de rigueur* in ancient art of all periods, but Basso Rial's review of representations of male and female figures in Iberian culture (6th–1st century BCE) makes a significant point about the social and status differences between men and women. Taking the textile approach he identifies gender-based attributes which assign textile production to women, but further that the aristocratic context of such images implies a shared understanding that textile work is a worthy and status-bearing activity for upper-class women, who come to represent all women. Represented men, on the other hand, remain resolutely aristocratic. Archaeological finds of textile tools support Basso Rial's hypothesis as does (slightly later) written evidence which mentions the quality of Iberian textiles. While Basso Rial's case study is internally consistent, we still might ask the question – as we do of all iconography which supports a dominant ideology – how far did people of the time buy into it? This is a devil's advocate question as it is almost impossible to answer, but it does bring us back to the relationship between representation and reality.

The funerary sculpture of Roman Palmyra together with a relative wealth of surviving textiles have provided Marta Żuchowska with the opportunity to compare the ways in which people chose to be represented in funerary portraits with actual textiles, or fragments of textiles found in graves. The deceased and their families were choosing which persona they wished to present, in choosing to stress the local or Roman tradition or a cosmopolitan mix of both. The funerary sculptures tell interesting stories about acculturation, loyalty and ethnicity – again, it is about so much more than textiles expressed through textiles. In this body of evidence there is enough surviving textile material to make some rather astounding comparisons, but the problem remains in that there is unfortunately no direct match between individual grave and particular textiles. Amy Place takes a different tack in looking at the language of dress and how it might have been read in the context of Late Roman African mosaics. A shared cultural understanding of certain iconographic tropes demonstrates ways in which textiles, dress, adornment and body language were manipulated to negotiate not only an individual's identity but also their own recognition of the role dress played in communicating certain elements of that identity.

Images and text often complement one another and each can be used to fill gaps in our understanding, but they need to be taken in context and in terms of their particular media. As Place cogently argues, mosaic images, for instance, by virtue of the way they are constructed, and the reasons why they were designed, provide information on ideas of clothing and the language of dress understood by the commissioners and viewers of that mosaic but probably do not represent dress as worn. Such images add to the visual rhetoric of dress and its role in elite culture of Late Roman Africa; they have a tentative relationship with reality but still could be understood in a myriad of ways by contemporary viewers. The same can be said of most of the iconography discussed in this volume.

We might consider such approaches as 'using textiles to think with' – to misuse an old trope of gender studies ('using women to think with') as by fore-fronting the textiles/dress/technology we recognise the multiple ways they function as signs for phenomena other than description. As Thaddeus Nelson argues here, changing the interpretation of an image might refocus understanding of a culture. Reinterpreting and rediscovering textiles and textile production is putting textiles back where they should be – in the centre of society as essential and ubiquitous. Current researchers are turning back a wave of scholarship which established certain 'traditions' in the 19th century and are now slowly but surely being undermined, offering a far broader range of understanding of the social systems, gender relations, trade networks, production mechanisms of all periods – and the reading of iconography has a big part to play in this movement. Iconography, as I have already said, is often our most accessible way of looking at the textiles and dress of the past, now and in the future. We need to ensure it is also part of the bigger history of cloth and clothing cultures. This volume reflects the range of research that is being undertaken at present and the willingness of scholars to move between disciplines under the overarching themes of textile and dress studies. We now need to take this research out of our own bubbles into wider scholarship, to give papers at conferences that are tangential to our immediate interests and to bring the enormous body of knowledge that textile studies have to offer to transform our understanding of past societies on the larger stage.

Notes

1 Harlow and Nosch (2014).
2 There are too many monographs, articles and edited volumes to cite here; I refer you to the bibliographies that accompany the chapters in this volume.
3 Cleland (2005).
4 Berger (1972).

5 Harlow (2017, 155–157).
6 See Brøns, this volume, for a brief survey of recent discoveries of embroidery; Droß-Krüpe and Paetz gen. Schieck (2014) for further survey and discussion.

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Glossary

Cecilie Brøns, Peder Flemestad, Susanna Harris and Marta Żuchowska

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The following glossary is aimed at the general reader of the volume. Latin and Greek words are given in the singular and subsequently the plural form, where pertinent. For ease of legibility, adjectives are only given in the masculine.

Ampechonon, ampechona (Greek)	A female outer garment used for wrapping around the body. From *ampechō*, 'to put around, to drape'.
Andrōn, andrōnes (Greek)	The special room for a banquet in a house.
Arachne	'Spider' in Greek. In Greek mythology, Arachne was a talented weaver who dared to challenge the goddess Athena. Arachne's textile was so beautiful that Athena tore it to pieces in rage, and Arachne hung herself in despair. Athena pitied Arachne and changed her into a spider. Her name derives from the word for "spider" in Greek, arachnē. Ovid's *Metamorphoses* is the main source to the story.
Arkteia (Greek)	A religious rite taking place at Brauron, in which girls representing the polis of Athens imitated she-bears, *arktoi*.
Arrēphoros, arrēphoroi (Greek)	A girl, 7 to 11 years old, involved in the cult of Athena Polias on the Athenian Acropolis.
Attalica (Latin)	A term denoting cloth or clothing embroidered with gold or with in-woven gold. The name is attested in passages in Pliny (*NH* 8.74) and in Cicero (Verr.4.12.26) who suggested that the famous woollen fabrics woven with gold thread were invented by King Attalus of Pergamon.
Aurinētrix (Latin)	A spinner of gold thread.
Auripigmentum (Latin)	See Orpiment.
Balanced plain weave	See Balanced tabby.
Balanced tabby	Simple weave of one under, one over alternating in each row woven with a similar number and type of threads of in warp and weft. Also called balanced plain weave.
Barbaricarius, barbaricarii (Latin)	Usually understood to refer to a maker of cloth featuring gold or silver threads or a gilder in general.
Batrachos (Greek)	Frog-colour, pale-green.
Bolus (bole) technique	Gilding technique, when gold leaf is applied onto a preparatory layer of refined fine clayish earth pigment.
Camillus, camilli (Latin)	A religious attendant.
Chaîne opératoire (French)	French for 'operational sequence'. Method that describes the sequence of operations when producing an artefact from the raw material to the finish product.
Chitōn, chitōnes (Greek)	A tunic-like garment made from two large rectangles sewn up the sides.
Chitōn amorginos, chitōnes amorginoi (Greek)	An inner garment made of fine linen from the Cycladic island of Amorgos.

Chitōniskos, chitōniskoi (Greek) — Diminutive of *chitōn*. A short *chitōn* worn primarily by children, female athletes and Amazons, but also Etruscan and Greek men.

Chitōniskos cheirodotos, chitōniskoi cheirodotoi (Greek) — A sleeved *chitōniskos.* Of Persian origin and often featuring multi-coloured decoration.

Chlamys, *chlamydes* (Greek) — A male garment in the shape of a short woollen cloak, worn throughout the Greek world.

Chrysopoikilos (Greek) — Adjective conventionally translated as 'gold-embroidered', but it might equally refer to gold that has been woven into the fabric.

Cinnabar — Mercury sulphide: a toxic dense red mineral used as a pigment since antiquity. The name derives from Greek *kinnabari* and Latin *cinnabaris*. Described by Pliny and Vitruvius as *Minium*.

Cirrātas militāres (Latin) — 'Curly' military cloaks.

Clāvus, clāvi (Latin) — Stripe woven into tunics worn by Roman men and boys.

Cretan hieroglyphic — Hieroglyphic writing systems used in early Bronze Age Crete. Linear B predates Linear A by about a century, both then appear to have been used in parallel.

Distaff — A tool used for spinning, designed to hold the unspun fibres.

Domina, *dominae* (Latin) — See *dominus*.

Dominus, *domini* (Latin) — In ancient Rome the term meant 'master' or 'owner', particularly of slaves.

Domus, domūs (Latin) — The Latin word for house, or household.

Drapery — Art-historical term for textiles and clothing on statues.

Ekphorā, *ekphorai* (Greek) — Funeral procession.

Embroidery — A technique of patterning fabric with motifs created by stitching – *i.e.* the decorative application of applying thread or yarn with a needle. Embroidery may also be created by stitching on pearls or beads to the cloth.

Endogram — In Bronze Age Aegean scripts, an endogram refers to a syllabic sign written inside a logogram to specify its meaning.

Enkyklon, *enkykla* (Greek) — An encircling wrap or shawl of textile.

Ependytēs, *ependytai* (Greek) — An informal short garment worn over the *chitōn* / an outer garment of Eastern origin associated with divinity.

Ephod (Hebrew) — A decorative, ceremonial dress.

Epiblēma, epiblēmata (Greek) — A large, rectangular cloak worn by men or women, often drawn over the head as a veil. Also used as a general term for coverings, such as bedspreads, hangings and tapestries.

Fibre — A long filament suitable for spinning, may be animal, vegetable or mineral in origin.

Fibula, *fibulae* (Latin) — Used by modern scholars to denote a dress-fastener similar to the modern safety pin.

Fire-gilding — Gilding technique when a layer of gold is applied to the surface of a less rare metal.

Flaminica, flaminicae (Latin) — The wife of the flamen (a Roman priest).

Flavonoids — Compounds in dye plants used for dyeing yellow. From the Latin word *flavus*, meaning yellow.

Fulcrum, *fulcra* (Latin) — S-shaped head rest.

Fullery — Facility where wool cloth is fulled.

Gammadion, *gammadia* (Greek) — A decorative pattern in the form of the Greek capital letter *gamma*.

Gilding — Suite of techniques to apply a fine layer of gold to the surface of another material.

Glaukos (Greek) — Bluish-green or grey, gleaming.

Goethite — Main component of yellow ochre. An iron oxide hydroxide, a naturally occurring mineral with the formula, α-FeO(OH). Produces a yellow or brown pigment, used since antiquity.

Hallstatt culture — Late Bronze Age to Early Iron Age archaeological culture of Western and Central Europe (12th to 8th centuries BCE).

Halourgos (Greek) — The term derives from the Greek words *hals* (sea/salt) and *ergon* (work). The original meaning of *halourgos* can therefore be translated as 'made from the sea' or 'made from/with salt'. Dictionaries usually translate it with 'purple' or 'sea-purple' (*i.e.* purple dye, see murex purple) or purple.

Handloom	Any loom where an aspect of the weaving operations is performed manually, without an additional power source.
Haruspex, *haruspices* (Latin)	A Roman priest practicing a form of divination called *haruspicīna*, which was the inspection of the entrails of sacrificed animals.
Heddle	The loop of thread, or other material (see *Rigid heddle*), through which the end of the warp thread is passed so that it may be raised or lowered to open the shed and thereby permit the passage of the weft.
Heddle bars	A frame in which the heddles are sometimes held.
Heddling	The act of threading each strand of the warp through the eye of a heddle.
Hematite	Red ochre. A common iron oxide compound with the formula Fe_2O_3. Widely found in rocks and soils. Used as a red pigment in ancient polychromy since the prehistoric period.
Heröon	Shrine or monument dedicated to a Greek or Roman hero.
Himation, *himatia* (Greek)	General term for clothing or dress. Often used to refer to a mantle or wrap, made of a rectangular piece of fabric, worn on the upper body.
Horizontal loom	Loom with its warp arranged horizontally.
Hydria, *hydriai* (Greek)	A vessel for water.
Hypogeum, *hypogea* (Greek)	Underground structure, usually for funerary purposes. In Palmyra *hypogea* were the large underground tombs with rows of burial niches (*loculi*).
Indigo	Indigo was used as an ancient blue dyestuff. It was termed *indikon* or *indicum* by the Greeks and Romans. Natural indigo is obtained from a variety of plants, the most widely used ones being *Indigofera tinctoria* and woad, *Isatis tinctoria*.
Jin silk	Multi-coloured, patterned silk produced in China during the Han (206 BCE–220 CE) and Jin (265–440) dynasties, sometimes called incorrectly 'Chinese brocade'. Jin silk was a warp-faced compound tabby in which the pattern was made by alteration of two or more warps (usually between 2 and 5, but up to 7 sets of coloured warps are evidenced), while only one weft was used to bind the warp threads and divide colours.
Kalasīris, kalasīreis (Greek)	A long, loose tunic of fine linen with a fringed hem. Of Egyptian or Persian origin.
Kalathos, *kalathoi* (Greek)	A basket containing combed wool for spinning.
Kandys, kandyes (Greek)	A Median or Persian coat with sleeves. Also worn by women in Classical Athens.
Kanēphoros, kanēphoroi (Greek)	'Basket bearer'. An honour given to unmarried, young women in ancient Greece. They led the procession to sacrifice at festivals.
Kantharos, *kantharoi* (Greek)	Wine-drinking cup.
Katastikton dipterygon (Greek)	An embroidered mantle with two fluttering corners.
Klinē, klinai (Greek)	A type of bed-couch used for *symposia*.
Korē, korai (Greek)	Statue of young woman.
Kouros, *kouroi* (Greek)	Statue of young man.
Kratēr, kratēres (Greek)	Vessel for mixing wine and water.
Krokōtos, krokōtoi (Greek)	Saffron-coloured, a saffron-dyed garment. Generally a feminine garment.
Kylix, *kylikes* (Greek)	Wine-drinking cup.
Lamella, *lamellae* (Latin)	A narrow strip of precious or base metal, or gilt or silvered leather, membrane, metal or paper used for thread. It may be used flat or wound around a core.
Lanificium (Latin)	Wool working, *i.e.* spinning or weaving.
Lapis lazuli	Blue semi-precious stone, mined in Afghanistan.
Larnax, *larnakes* (Greek)	A small, closed coffin or urn.
Lēkythos, lēkythoi (Greek)	Vessel with one handle used for storing oil, especially olive oil.
Leukos (Greek)	White, bright, light.
Ligature	A ligature is a written character composed of two or more signs.
Linear A	A writing system used by the Minoans (Cretans) from about 1800 to 1450 BCE. It remains undeciphered.
Linear B	A syllabic writing script used in Mycenaean Greece from around 1450 BCE.
Loculus, *loculi* (Latin)	A burial niche.
Logogram	A character or pictorial symbol that is used to designate a word.

Loom weight	Loom weights are objects of a similar shape and weight, often made in terracotta, used to hold the warp-threads of the vertical warp-weighted loom taught.
Mafurtium, *marfurtia* (Latin)	A short, wrapped mantle (*palla*), worn by women, found only in later Latin sources.
Matrōna, *matrōnae* (Latin)	A married woman, especially one considered as a female of dignified character.
Mēniskos, mēniskoi (Greek)	Literally 'crescent moons', made out of metal and mounted on a statue's head to keep birds away.
Mitrā, *mitrai* (Greek)	A head band or headdress.
Modius, modiī (Latin)	Characteristic cylindrical hat with flat top and without brim. Its shape is similar to the jar used in Roman world as a measure unit – the *modius* – from which it took its name in modern scholarship. It was usually represented as a headdress of the gods, in Palmyrene iconography it symbolised the priestly profession.
Multi spectral imaging	Different imaging techniques used to identify various pigments as well as organic substances on artworks. Acronym: MSI.
Murex purple	Purple vat dye obtained from the glands of three species of sea molluscs (*Hexaplex trunculus* L., *Bolinus brandaris* L. and *Stramonita haemastoma* L.). Also known as 'Tyrian purple', 'shellfish purple', or 'True purple'.
Murex shells	See murex purple.
Nefesh (Aramaic)	Literally 'soul'. In Semitic culture, the term designates funerary monuments, usually in the form of stelae.
Oak apple	Also known as oak gall, it is the common name for a large, round gall found on many species of oak. Oak apples are caused by the larva of certain kinds of gall wasp in the family *Cynipidae*. They are an abundant source of tannin, and were used for dyeing textiles in antiquity.
Oikos, *oikoi* (Greek)	Three distinct concepts: the family or household, the family's property and the house. Together they formed the social unit in ancient Greek city-states.
Orpiment	Arsenic sulphide mineral characterised by its bright yellow colour. Derived from the Latin *auripigmentum*, literally 'gold pigment'. It was used in ancient polychromy, often as a substitute for gold.
Oscillum, *oscilla* (Latin)	Masks, faces or small figures hung up as offerings to deities.
Otium, otia (Latin)	A somewhat ambiguous Latin term broadly denoting a sense of leisure or freedom.
Palla, *pallae* (Latin)	Female equivalent of the *pallium*, a wrapped, rectangular mantle worn in a variety of different ways. It covered the body from shoulder to knees and was never fastened but draped.
Paludamentum, *paludamenta* (Latin)	The military cloak worn by Roman generals and emperors. Fastened by a brooch or *fibula* on the right shoulder.
Panathēnaia (Greek)	An important Greek festival held in honour of the goddess Athena at Athens.
Pannychis, pannychides (Greek)	A ritual celebration of the Eleusinian Mysteries that lasted through the night.
Pars rustica (Latin)	See *villa rustica.*
Parthenos, *parthenoi* (Greek)	Young maiden/virgin. Also used as an epithet for several goddesses, particularly Athena.
Paryphē, paryphai (Greek)	A border woven along a textile or garment.
Pasmation, *pasmatia* (Greek)	A metal ornament sewn onto garments.
Peplos, *peploi* (Greek)	Rectangular, wrapped and pinned garment.
Peripoikilos, peripoikiloi (Greek)	Many-coloured, spotted all over or all around.
Phiale, Phialai (Greek)	A shallow bowl used for drinking or pouring libations.
Pinakion, pinakia (Greek)	A small writing tablet.
Pithos, *pithoi* (Greek)	A large storage container.
Ply/plying	A process to create stronger or thicker yarn by twisting two or more threads together.
Polychromy	Term referring to the paint of ancient artefacts, particularly sculpture and architecture. From the Greek words '*poly*' (many) and '*chroma*' (colour), *i.e.* 'many-coloured'.
Praetextātus, praetextāti (Latin)	Wearing the purple-bordered toga.
Promagister, *promagistri* (Latin)	Vice-master of the priests who wears the *ricinium.*
Rica, *ricae* (Latin)	A kerchief worn as a veil, especially worn by the *flaminicae*, or used as a handkerchief.

Riciniātus, riciniāti (Latin)	Wearing the *ricinium.*
Ricinium, ricinia (Latin)	A square mantle, worn thrown back or double.
Ricula, riculae (Latin)	Diminutive of *rica*, a veil thrown over the head by women during sacrifice.
Rigid heddle	Wooden device with holes and slots used to lift and lower alternating warp threads to create a shed when weaving, , first attested in the Roman era.
Sagum, saga (Latin)	A rectangular cloak of coarse wool, worn fastened with a brooch or *fibula*. Primarily associated with soldiers.
Segmenta (Latin)	Bands or borders on women's dress.
Sha'atnez (Hebrew)	Textiles combining wool and linen mixed together. It is prohibited by Jewish law.
Soleātus, soleāti (Latin)	Wearing sandals (*solea* = sandal).
Soumak	A type of weave where the weft does not pass through the shed in the warp, but rather the weft is manually wrapped around one or more warps. Soumak and other warp-wrapping techniques are typically used to create patterns in different colours.
Spindle whorl	A disc or spherical object fitted onto the spindle to increase and maintain the speed of the spin.
Sprang	A form of interlinking worked with one set of threads, made on a small portable frame. Typically creates a stretchy fabric similar to knitting.
Stamnos, stamnoi (Greek)	A vessel with two handles used to store liquids, primarily wine.
Stephanē, stephanai (Greek)	A diadem-like woman's headdress.
Stola, stolae (Latin)	A long, sleeveless, tube-shaped overdress suspended from shoulder straps, characterising the Roman matron.
Strophion, strophia (Greek)	An elusive garment item, interpreted as a breast-band worn by women or a headdress worn by priests.
Subura (Latin)	A densely settled, poor district in central Rome with many workshops and shops. It was situated in the area between the Viminal and Esquiline hills.
Supplementary weft or warp	Supplementary weft or wrap is a weaving technique where an additional thread which is worked into the ground weave (*i.e.* the main warp or weft), usually to create a decorative effect.
Syllabograms	Signs used to write the syllables of words.
Symposion, symposia (Greek)	In ancient Greece, the *symposion* was a relaxing stage that followed the banquet meal, it involved drinking music, recitals and conversation.
Tabby	Simple weave of one under, one over alternating in each row. There are many variations, for example if two or more warps and wefts move together it is called extended tabby.
Tablet weave	A twined warp weave made using tablets. The warp yarns are threaded through holes in the tablets, the tablets are twisted between each passing of the weft. Typically used to make narrow, decorative bands.
Tabula, tabulae (Latin)	A decorative pattern in form of a square or a rectangle, distinctive by its colour. Sometimes, especially in the Late Roman and Byzantine period, also ornamented. It was usually used as decoration for plain tunics, often together with *clāvi*.
Tannin	Term commonly used for substances of vegetable origin, which give a greenish or bluish-black hue in the presence of iron salts, and have the property of tanning – the process whereby animal hides and skins are turned into leather. Tannins are very common in the plant world and have been used since prehistoric times. Tannins can act both as a mordant and also contribute to the final colour of the dye.
Tapestry	Tapestry weave is a version of weft-faced tabby textile where distinctive coloured wefts are interwoven only in the patches of the warp required by the pattern. The wefts completely cover the warps, making this an ideal technique to create decorative surfaces and defined motifs.
Tarantīnon, tarantīna (Greek)	A garment made of semi-transparent cloth, interpreted as coming from Taras/Tarentum, southern Italy.
Tēbenna, tēbennai (Greek)	Term used by some writers for the *toga*. Also used in modern research for the Etruscan forerunner of the Roman *toga*.
Textile	A fabric woven on a loom in any fibrous material.

Tintinnābulum, tintinnābula (Latin)	A wind chime or sort of mobile with bells attached. It often took the form of an ithyphallic figure or a phallus. It was thought to ward off the evil eye.
Toga, *togae* (Latin)	A quintessential Roman garment, worn as the formal dress of Roman citizens for the entire Roman history. At first a very simple, draped garment worn by men and women, and was never fastened. It has a curved edge, which could be emphasised with a coloured border. It was usually made of woven wool.
Toga picta, togae pictae (Latin)	A decorated, ceremonial *toga* worn by triumphant generals and by the cult statue of Jupiter Optimus Maximus in Rome.
Toga praetexta, togae praetextae (Latin)	A *toga* with a purplish-red coloured border, worn by magistrates, some priests when sacrificing, and children.
Tower-tomb	In Palmyra a type of multi-storey family tomb with multiple rows of *loculi* along the walls. This type of funerary structure was popular from the late 1st century BCE to the first half of the 2nd century CE.
Tunica dalmatica, tunicae dalmaticae (Latin)	A type of tunic with wide long-sleeves.
Tunica strictoria, tunicae strictoriae (Latin)	A long-sleeved tunic.
Two-beam loom	A loom where the warp is stretched between two bars or beams. Weaving on this loom began at the bottom, and the weft was beaten down.
UV – Visible absorption spectroscopy	Scientific technique to analyse pigments by measuring how much a chemical compound absorbs light. Acronym: UV-VIS spectroscopy, also photospectroscopy.
Vestes (Latin)	Generic term for clothes and garments.
Villa fructuāria (Latin)	The storage rooms of the classic Roman villa-complex, where the products of the farm were stored.
Villa rustica (Latin)	The production quarter of the classic Roman villa.
Villa urbāna (Latin)	The dwelling space of the classic Roman villa where the owner and his family lived.
Visible induced luminescence	A photographic technique commonly used in polychromy research to map the distribution of the ancient pigment Egyptian blue. Acronym: VIL.
Vitta, *vittae* (Latin)	A band or fillet of wool, used especially for women's hairstyles.
Warp	Warp and weft are the two basic components used in weaving. The vertical warp threads are held in tension on a frame or loom while the horizontal weft is passed through the shed (space between the warps) to intersect with the warps.
Warp-faced compound tabby	See Jin silk.
Warp-weighted loom	A simple loom in which the warp is held in tension between a supported bar and a set of weights. Weaving proceeds from the top of the loom.
Weaving sword	A flat, blade-like stick used in *handlooms* to beat in the weft.
Weft	The transverse threads of a textile, which intersect at right angles to the warp. See Warp.
Weft-beater	A weaving tool designed to compress each line of weft.
Weft-faced weave	Term used to describe a weave in which the weft predominates and covers the warp.
Weft-wrapping	A technique of weaving in which the weft thread is wrapped around the warp threads instead of being threaded between them. See Soumak.
Whorl	See Spindle whorl.
Xoanon, *xoana* (Greek)	Wooden cult image of the Archaic period in Ancient Greece.
X-ray fluorescence	Scientific technique used to analyse inorganic pigments by determining the elemental composition of materials. Acronym: XRF.
Xenismos, *xenismoi* (Greek)	The act of receiving or entertaining guests in Ancient Greece.
Zōnē, zōnai (Greek)	A belt, more broadly anything that encircles.

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