

MEDIEVAL AND EARLY MODERN PHILOSOPHY AND SCIENCE

The Body of Evidence

*Corpses and Proofs in
Early Modern European Medicine*

EDITED BY
FRANCESCO PAOLO DE CEGLIA

SERIES EDITORS
C.H. LÜTHY AND P.J.J.M. BAKKER



BRILL

The Body of Evidence

Medieval and Early Modern Philosophy and Science

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Corpses, Evidence and Medical Knowledge in the Late Middle Ages and the Early Modern Age

Francesco Paolo de Ceglia

0.1 The Corpse on Trial

In Bologna it was the only topic of conversation. Rumor had it that Azzolino Onesti had been poisoned. It was for this reason that the *ad maleficia* judge arranged for Bartolomeo da Varignana, a renowned professor of medicine at the local university, the *physicus* Giacomo di Rolandino, and the three surgeons Tommaso Grincius, Giovanni da Brescia and Pace di Angelo, to carry out the autopsy. It was March 1, 1302, when what tradition recognizes as the first documented record of a judicial autopsy was written. In the end, it excluded the hypothesis of poisoning:

Azzolino did not die from the poison, but rather, and more certainly, because of the large quantity of blood that gathered in the large vein known as [inferior] vena cava, and in the veins of the liver close to it, which prevented the spirit from spreading through effusion throughout the body and consequently caused the complete mortification or extinction of the innate heat, wherefore the body underwent a rapid decay after death [...].¹

The fact that this is the first document that can be dated with certainty does not imply, of course, that it is the first episode of judicial autopsy, the story of which still awaits being written in its infinite detail.² But starting at the end of the 13th century the statutes of the city of Bologna were increasingly stimulating the emergence of the role that professionals with a specific medical or

1 “Açolinum ex veneno aliquo mortuum non fuisse, sed potius et certius ex multitudine sanguinis agregati circa venam magnam, que dicitur vena chilis et venas epatis propinquas eidem, unde prohibita fuit spirtus quia ipsum in totum corpus effluxio et facta caloris innati in toto mortificatio sive extincio ex quo post mortem celeriter circa totum corpus denigratio facta est [...]” Simili, “Bartolomeo da Varignana,” 1102. Cf. Chandelier-Nicoud, “Entre droit et médecine.”

2 King, “A History of Autopsies”; Gross, *Die Entwicklung*; Menenteau, *L'autopsie judiciaire*.

surgical training were called to take on in the identification of the causes of a death presumed to be of a violent nature. Not by chance while a source from Bologna from 1265 required that if a person were injured or killed, a notary must ascertain the number of wounds and in which parts of the body they were located, in another source from 1288, and with small differences in one from 1292, the assignment was entrusted to two physicians “periti in arte medicandi,” who had at least a certain age, had lived in the city for at least a certain period and had a certain census.³ Medical experts began being involved in the inquiry on the dead body, which would later appear to be their ‘natural’ prerogative. To do so, at the beginning, however, they had to prove they were capable of doing the job, as well as not easily influenced.

Bologna, home to an important university, was one of the first cities to resort to professionals with medical and health expertise in the broadest sense: physicians, surgeons, apothecaries, midwives, barbers, and so on. But, from this point of view, the 13th century marked a turning point elsewhere on the Continent as well. The earliest known episode concerns two letters written in 1209 in which Pope Innocent III urged physicians and surgeons to examine (though without performing a true autopsy) two corpses to make it easier to determine possible criminal liability.⁴ One way or another, from the middle of the century the use of this type of professionals also became standard practice elsewhere in Europe: in Manosque, in Provence, starting at least in 1262; in Aragon starting in 1275; in Venice starting in 1281; in Paris starting in 1311.⁵ Professionals of body-related knowledge – obviously, the living body, like that studied by medicine, not the dead body, like the one that was now often examined – came into the courtroom, formally as expert witnesses. However, they would over time create an increasingly important role for themselves, in practice as well as in legal doctrine, so much so that it was recognized that they “are not truly witnesses, but rather almost judges who judge [at least] that article of the case.”⁶ But a few centuries would pass before their intervention was recognized everywhere in its plain nature of expertise.⁷

However, this volume does not primarily aim at reconstructing this history. Over the last few years, competent scholars have been working in this field, and

3 Simili, “Sui primordi.”

4 O’Neill, “Innocent III”; Paravicini Bagliani, *Il corpo del papa*, 281.

5 Busacchi, “Necroscopie trecentesche”; Carraway Vitiello, “Forensic Evidence”; Collard, “Secundum artem”; Ferragud, “Expert Examinations”; Kantorowicz, “Cino da Pistoia”; Park, “The Criminal”; Pouchelle, “La prise en charge”; Ruggerio, “The Cooperation”; Shatzmiller, “The Jurisprudence.”

6 Bartolo da Sassoferrato, *Tractatus*, 26. Cf. Mausen, “Ex scientia et arte sua.”

7 McClive, “Blood and Expertise”; De Renzi, “Witnesses of the Body.”

have patiently been following the evolution of the role played by the ‘experts of the body’ in the various legal systems. Instead, here we have attempted to outline not so much the affirmation of medical expertise in criminal trials, but the assertion of a new object of investigation, precisely the dead body, which was finally consulted so that it could, in its own way, speak and tell its story. The western world had been in a certain sense submerged by corpses, which were stacked up in the churches exuding miasmas, and yet no one had had the idea of dragging them into the courtroom.⁸ Or maybe not: to tell the truth, at least once this had been done. Moreover, in literal, not metaphorical, terms. It was in the year 897, in the so-called “Synod of the Corpse,” when Pope Stephen VI decided to exhume Pope Formosus’ body in Rome to put it on trial. A 19th century historian tells the tale in a very vivid, although not very precise, manner:

The Pope’s corpse, torn from the tomb where he had been resting for some months, was dressed in pontifical garments, and placed on a throne in the council chamber. Pope Stephen’s lawyer stood up and turned to the horrible mummy, at whose side was a trembling deacon, who was supposed to act in his defense, and proposed the charges. And the living pope, in an insane fury, asked the dead one: “Why, ambitious man, have you usurped the apostolic chair in Rome, you who were already bishop of Porto?” Formosus’ lawyer delivered his defense, provided his horror allowed him to speak. The corpse was found guilty and sentenced. The synod signed the deposition, cursed the pope eternally, and decreed that all those whom he had ordained as priests should be newly ordained. The garments were ripped off the mummy, they cut off the three fingers of his right hand which the Latins use to bless, and with barbaric cries, they threw the corpse out of the chamber; dragged him through the streets, and, amidst the screams of the mob, he was thrown into the Tiber.⁹

8 Schmitz-Esser, *Der Leichnam*, 405–431.

9 “Die Leiche des Papsts, ihrer Gruft entrissen, worin sie schon mehrere Monate geruht hatte, wurde mit den pontificalen Gewändern bekleidet und im Konziliensaal auf einen Thron niedergesetzt. Der Advokat des Papsts Stephanus erhob sich, richtete sich gegen diese schauerliche Mumie, welcher ein bebender Diaconus als Anwalt zur Seite stand, hielt ihr die Klagepunkte entgegen, und der lebende Papst fragte den toten in irrsinniger Wut: ‘Warum hast du aus Ehrsucht den Apostolischen Stuhl usurpiert, da du doch zuvor Bischof von Portus warst?’ Der Anwalt des Formosus brachte seine Verteidigung vor, wenn ihm Schauer zu reden erlaubte; der Tote ward überführt und verurteilt; die Synode unterschrieb sein Absetzungsdekret, sprach das Verdammungsurteil über ihn aus und bestimmte, daß alle diejenigen, welche Formosus ordiniert hatte, neu zu ordinieren seien. Die päpstlichen Gewänder wurden der Mumie abgerissen, die drei Finger der rechten Hand, womit die Lateiner den Segen erteilen, abgeschnitten, und man schleppte den Toten mit barbarischem

Now, between the end of the 13th and the beginning of the 14th century, the corpse was no longer accused, but somehow it continued to act as a witness. It spoke through signs that, depending on the context, men of law or medicine reported and interpreted. From an exquisitely 'theatrical' point of view, the experts of the body did not play a very different role from that of Formosus' horrified lawyer: they gave a corpse a voice. This is clearly evident in the persistence in the early modern age of practices such as the bier right or cruentation, in which the suspects in a homicide walked past the victim's body, in the belief that the latter would begin to bleed in the presence of the assassin, thus identifying him or her. The body would testify using the language of blood, and the experts would only serve as interpreters.¹⁰

0.2 In Search of Signs

In August of 1308, only six years after the mysterious death of Azzolino Onesti, Clare of Montefalco passed away in the odor of sanctity in the monastery where she was "mother, teacher and spiritual director." Her sisters, stricken with grief, decided to embalm the body, so that it could be venerated by the faithful. Her internal organs were extracted and buried separately, with the exception of the heart, which was left in a container pending further investigation. It was only the next day that some of them went to get the heart, which was in the box, as they later told the other nuns. "And the said Francesca of Foligno cut open the heart with her own hand, and opening it they found in the heart a cross, or the image of the crucified Christ" along with something that looked like the scourge with which she had been oppressed during the passion.¹¹ More investigations of the saint revealed other symbolic concretions, like the crown of thorns, some nails and a lance. And the secrets of that holy body certainly did not end there.

The story of the examinations in the body of Clare of Montefalco has already been beautifully told by Katharine Park.¹² It shows the semiotic attitude, in this case clearly over-interpretative, to the corpse, which, here related to religious beliefs, was not altogether alien to the first attempts to 'open' the lay

Geschrei aus dem Saal, schleifte ihn durch die Straßen und stürzte ihn unter dem Zulauf des heulenden Pöbels in den Tiberfluß." Gregorovius, *Geschichte der Stadt Rom*, vol. III, 236. Cf. Cathala, *Le Synode du cadavre*.

10 Brittain, "Cruentation," 82–88; Boureau, "La preuve," 247–281.

11 "Et dicta Francescha de Fulgineo scindit cor ipsum sua manu, quo scisso invenerunt cruce in corde ipso, seu ymaginem Christi crucifissi." *Il processo di canonizzazione*, 339, 344.

12 Park, *Secrets of Women*, 39–76.

body to obtain the truth.¹³ This is because in the examination of the cadaver of an abbess who died in the odor of sanctity, as in the autopsy of a man who was thought to have been a victim of poisoning, the experts of the body, holy or laic that they may have been, acted, on different levels and more or less consciously, to search for signs that, through proper negotiation, could be transformed into evidence. As Mary Douglas puts it, they were in search of symbols, with all the inherent problems that such a type of procedure involves, “nature must be expressed in symbols; nature is known through symbols which are themselves a construction upon experience, a product of the mind, an artifice or conventional product, therefore the reverse of natural.”¹⁴ An area that has been particularly darkened or rotted by the toxic action of a poison is in fact a symbol of impurity, just as a cross imprinted in the heart is one of purity.

The late Middle Ages witnessed a new semiotic interest in the body. The living one, yes, probably for reasons connected with a greater desire for social control, as suggested by Valentin Groebner.¹⁵ But also the dead one, which began to be almost obsessively represented.¹⁶ Perhaps the emergence of urban social forces was imposing on the *oratores* the concept that – for the sake of brevity, let me use an anachronistic Merleau-Pontian expression – not only does one have, but one is a body. And it is legitimate to hypothesize that these developments in the construction of identity, which during those centuries led men and women to start perceiving themselves as “psychosomatic units,” gave the human remains a new and important role.¹⁷

A cadaver was not *caro data vermibus*, “flesh given to the worms” anymore. And, maybe, this is why in the bull *Detestandae feritatis*, promulgated on 27 September 1299 and again on 18 February 1300, the Pope Boniface VIII forbade that the body of a person dying in a Christian land be – according to the so-called *mos Teutonicus*, i.e., German custom – eviscerated, divided, or boiled, terming the practices he outlawed: abusive, detestable, beastly, horrible, horrifying, impious, abominable, abhorrent, cruel, harsh, monstrous, barbarous, savage, hideous, and filthy (while some interpreted the bull as condemning anatomical dissections altogether, it was not really directed against the study of anatomy and was of little consequence to it).¹⁸

13 de Ceglia, “The Historian.”

14 Douglas, *Natural Symbols*, XXI.

15 Groebner, “Describing the Person.”

16 Ariès, *L’homme devant la mort*. Cf. Berlioz, “Crapauds et cadavres.”

17 Walker Bynum, *The Resurrection*, 159–199. Cf. Boquet and Nagy, *Sensible Moyen Âge*.

18 Brown, “Authority, the Family, and the Dead,” 826. Cf. Paravicini Bagliani, “Storia della scienza”; Walker Bynum, “Material Continuity”; Binski, *Medieval Death*, 63–69. Katharine Park suggests: “from all available evidence, Boniface’s bull and letter were taken as

Life acquired new value and death seemed to be a phenomenon that was somehow extraneous, therefore uncanny.¹⁹ To be tamed. Also spatially circumscribed in the newly established cemeteries.²⁰ This is why the dead were no longer considered as a sort of “age class” of the community, as Patrick J. Geary pointedly observed in relation to high medieval society, but as ‘others’ who it was now necessary to learn about anew.²¹ Paradoxically, as if the living and the dead had never met before.²² Ghosts invaded the world or, at least, the marvel and exemplary literature of the 12th and 13th centuries.²³ “With the establishment of life on earth and the newfound mastery over time, and with the extension of the life beyond the grave into Purgatory,” Jacques Le Goff sums up, “the primary concern was for the dead.”²⁴ And for death, which was finally pictured as a disturbing personage who shared the characteristics of both a dead woman (rather than man) in an advanced state of decomposition and a demon. Death became something, indeed someone.²⁵

All this happened in conjunction with what André Vauchez has identified in the spreading of the so-called “physiological wonders”: of the idea that the body of those who had a direct relationship with the deity, especially with Christ, had to have specific signs.²⁶ ‘Brands’ or ‘marks’, that reminded everyone that *Verbum caro factum*, “the Word was made Flesh” (John 1:14) and that this could continue to happen. Somewhat like what happened to Francis of Assisi, whose stigmata were only spoken of after his death.²⁷ A corpse could reveal what the living saint ought to have been silent about for modesty.²⁸ Bradford A. Bouley comments, “through their corpses these individuals could offer confirmation of their connection with the divine or, conversely, reveal themselves as traitors of faith. Anatomy, interpreted by skilled medical practitioners, was the key to knowing the true nature of an individual, physically and spiritually.”²⁹ Death

irrelevant by generations of Italian medical professors, private doctors, judges, city councils, and even by later popes, several of whom were themselves embalmed.” Park, “The Criminal,” 18.

19 Lecouteux, *Elle mangeait son linceul*, 1–14.

20 Lauwers, *Naissance du cimetière*.

21 Geary, *Living with the Dead*, 36.

22 Scaramella, *L’Italia dei trionfi*, 7–52.

23 Schmitt, *Les revenants*, 253.

24 Le Goff, *The Birth of Purgatory*, 233.

25 Tenenti, *Humana fragilitas*; Frugoni and Facchinetti, *Senza misericordia*, 3–38.

26 Vauchez, *La sainteté en Occident*, 518.

27 Frugoni, *Francesco e l’invenzione delle stimmate*; Benfatti, *The Five Wounds of Saint Francis*; Klaniczay, “Signes corporels de la présence divine.”

28 Andretta, “Anatomie du vénérable.”

29 Bouley, *Pious Postmortems*, 3. Cf. Ziegler, “Practitioners and Saints.”

marked the boundary between dissimulation and truth. All this was true, for practical reasons related to the possibility of conducting in-depth examinations, but also because the corpse could be the passive subject of a storytelling performed by third parties who were looking for evidence or at least pretexts to be able to tell their own version of the facts.³⁰

Certainly, in the case of 'aspiring saints' (or witches) it is easier to understand that what led to an interpretation and overinterpretation of their bodies was the fideistic persuasion that they were a sort of casket of divine (or diabolical) messages to be discovered, decoded and disseminated.³¹ But, although with differences, a similar argument could be made for those who were subjected to a judicial autopsy. The introduction of the latter has long been exalted as an expression of a scientific aptitude, a more 'rational' mentality than the one that used ordeals for instance. And in many ways this reading of the facts is still correct. One cannot, however, deny the subtle line of continuity that connects the practice of autopsy to necromantic procedures broadly speaking, just like the aforementioned bier right: in the one as in the other, experts on the living body began to question a dead body which had thus far been mute, boasting of certainties they often did not possess. The bier right decoded virtually any postmortem phenomenon, not just bleeding – depending on the times, legal systems, and interpreters – as evidence or an implication of guilt. In the judicial autopsy, the Hippocratic-Galenic humoral pathology not infrequently prompted practitioners to identify in virtually every darkened or rotted region of the corpse a place where the toxic substances responsible for the death were thought to have acted.³² However, as Nancy Siraisi has shown, the correlation was subject to negotiation.³³ Indeed, centuries would pass before anatomical pathology provided the tools needed to begin to provide more reliable readings of the alleged abnormalities found in the autopsied body.³⁴ Only then would Giovanni Maria Lancisi, interested to lesions in the solid parts of the body rather than in humoral alterations, be able to say, actually in a most optimistic manner, that "nothing teaches us in a clearer way than the dissection of bodies, which brings the hidden causes of death into the clear light of day."³⁵

30 Ferrari, "Public Anatomy Lessons"; Klestinec, "Civility."

31 Darr, *Marks of an Absolute Witch*.

32 Collard, "Le Couteau de Bohémond"; Wear, *Knowledge and Practice*, 136–141; Pastore, *Veleno*.

33 Siraisi, "Segni evidenti."

34 Donato, *Sudden Death*; Bertoloni Meli, *Visualizing Disease*, 23–52.

35 "Nihil est, quod nos doceat apertius, quam ipsam cadaverum sectio, quae occultas nescis causas ad solis lucem evidenter exponit." Lancisi, *De subitaneis mortibus*, 144. Cf. Carlino,

In short, it was as if at a certain point there was a need to involve the corpse in the trial or anyway in the process of ascertaining the truth by requiring it to speak, even though the medical expertise that would question it had not yet been sufficiently developed. It was only then that, with the discovery of that new epistemic scientific-judicial object, a basin of skills, that over time would become known as anatomical pathology and legal medicine, began to be developed.³⁶ From a certain point of view it was the involvement of the experts of the living body that let them develop, over time, skills on the dead body.³⁷ Their social visibility came first, in some way connected to the development of surgery and the creation of the universities; it was then followed by their specific know-how on an subject which was yet to be fully understood. In the beginning there was only a dead body and the will to start from it to find some answers. Because death was conceived as the ideal place of truth and it was believed that a corpse could not lie.

This is the narrative that this volume intends to follow, thus reconstructing the story of a corpse that in a given era was interpreted as if it were a treasure chest containing the truth. A sort of box that, certainly, they knew how to open. But one which offered elements apparently abnormal and sometimes even marvelous – *miracula mortuorum*, to echo the 17th–18th century literature – that science would take centuries to understand.³⁸ Not that there is not a rich literature on the subject. However, predetermining its subject – normal anatomy, anatomical pathology, forensic medicine, medical examination during canonization processes, and so on – it has sometimes created “regressive stories” of individual medical disciplines, as defined by Maria Pia Donato, or, in any case, of individual professional specialties, which have fragmented the narration, in many cases unitary, of the discovery of the corpse as a bearer of signs.³⁹ That is why we will talk about physicians, anatomists, surgeons, barbers, apothecaries and midwives, yes, but also of men of law and religion, and – why not? – even laypeople who, from the late Middle Ages through the early modern age, observed, manipulated, incised, examined, dismembered and, above all, questioned bodies in order that they provide answers about the nature of their death. And it is from this point of view that the *sectio* of a cadaver can be understood as a form of anatomical necromancy.

Books of the Body; French, *Dissection and Vivisection*; Cunningham, *The Anatomical Renaissance*; Mandressi, *Le regard*; Sawday, *The Body Emblazoned*.

36 Long, *A History of Pathology*; Hamberger, ‘*Mortuus non mordet*’, 46–54; Cunningham, *The Anatomist Anatomist’s*; De Renzi, Bresadola, Conforti, *Pathology in Practice*.

37 McVaugh, *The Rational Surgery*.

38 Kornmann, *De miraculis mortuorum*; Garmann, *De miraculis mortuorum*.

39 Donato, “Anatomia, autopsia, *sectio*.”

Or in any case the exploration of a 'land of signs' which, even for judicial purposes, would be interpreted immediately, despite their non-univocal meaning.

0.3 Evidence, Rationalities and Genres

It was the dead body that had to provide the answers that magistrates were looking for. But how could an element found in a corpse acquire probative value? It would be impossible here even to touch upon the complex evolution of European culture in general and the criminal law debate between the end of the Middle Ages and the early modern age.⁴⁰ Nevertheless, it is necessary to remember the rather generalized changes that occurred in the conceptualization of the notion of evidence starting in the 12th century. It is clear that a significant role in this process was played by the extension, starting in that period, of the Roman law tradition to most of the continent. An analogous evolution should, however, be observed, as Raoul Van Caenegem has repeatedly illustrated, even in contexts where it is not apparent that Roman law had an appreciable influence. In other words, in addition to the admittedly fundamental changes in the legal systems, the importance of a transformation in the paradigms of rationality, not just judicial, should be recognized in conjunction with the shaping of new social structures.⁴¹

There were, of course, elements of continuity with the past, notably evident, for example, in the trial by jury, typical of Anglo-Saxon legal culture.⁴² As Catherine Crawford explains, "early English jurors combined the functions of witness and arbiter of fact. Being from the neighbourhood, they were expected to have personal knowledge of the circumstances surrounding an alleged crime and to decide on the basis of that knowledge." But, above all, regarding our topic of interest, "like the judgement by ordeal, the verdict of a trial jury was a simple pronouncement, for which no rationale was given."⁴³ It could be argued that between the 12th and 15th centuries the English jurors stopped informing themselves about the habits of the suspects and, although slowly, began to base their decisions on the evidence formally produced during the trial.⁴⁴ Nevertheless, the change was never fully accomplished because, as

40 Lancaster and Raiswell, "Evidence before Science."

41 Van Caenegem, "Reflexions on Rational and Irrational Modes," 73–79.

42 Klerman, "Was the Jury Ever Self-Informing?"

43 Crawford, "Legalizing Medicine," 95. Cf. Van Caenegem, "Reflexions on Rational and Irrational Modes," 95.

44 Green, *Verdict according to Conscience*. Cf. Holford, "Thrifty Men of the Country?"; Butler, *Forensic Medicine*, 94–107.

John Langbein recalls, “the medieval jury came to court not to listen but to speak, but not to hear evidence but to deliver a verdict formulated in advance.”⁴⁵ Moreover, the jurors’ pronouncements were always attributed with a certain “presumption of oracular infallibility,” almost as if those jurors were inspired, in the exercise of their collegiate action, by a sort of divine spark which guaranteed that they make the right decision, to which the magistrate had to yield, as he did and, in some cases, continued to do so when he had to deal with the outcome of an ordeal.⁴⁶ The jury came to the truth in a more intuitive than demonstrative way. Or at least through a process that must have looked that way to many.

This aspect is particularly interesting because for historians of science it cannot fail to point to the way in which, especially in early modern times, the same investigation of nature was understood in the British Isles: a civil and religious *ethos*, already glimpsed by Robert Merton in his pioneering studies, to be lived as a mission.⁴⁷ As Peter Dear showed, at that time there seem to have been two gnoseological perspectives that co-existed, sometimes clashing, in Europe.⁴⁸ In simplified terms, on the one hand, there was a Central-Northern Germanic Europe, in this case Anglo-Saxon, faced with a nature that, especially after the Protestant Reformation, appeared to be very lively, in some cases animated almost directly by God through secondary causes.⁴⁹ That is why naturalistic research could easily become physico-theological works, through which scientists could ascend from the creatures to the Creator;⁵⁰ which, as Andrew Cunningham has shown, is also true in the case of anatomic investigation.⁵¹ As if that were not enough, not only nature was guided by God: also the story of individuals and of humanity as a whole was directed or at least inspired by Him through a powerful Providence.⁵² And it is probably also for this reason that the knowledge, judicial and scientific processes were collectively entrusted to people who, in verifying the truth of single events, came into contact with some transcendent dimension. In those societies there were no longer any official (catholic) priests or *sacerdotes*, i.e., exclusive custodians and overseers

45 Langbein, “Historical Foundations,” 1170.

46 Esmein, *A History of Continental Criminal Procedure*, 629; Shapiro, ‘*Beyond Reasonable Doubt*’, 241; Jones, *Expert Witnesses*; Van Caenegem, *Legal History*, 95–98.

47 Merton, *Science*. Cf. Preston, *The Poetics*, 128–130.

48 Dear, “Miracle.”

49 Schaffer, “Godly Men”; Harrison, *The Bible*, 15–27.

50 Vidal, “Extraordinary Bodies”; Calloway, *Natural Theology*.

51 Cunningham, *Anatomical Renaissance*, 216–236; cf. Kusukawa, *Transformation of Natural Philosophy*, 75–123.

52 Crawford, *Marvelous Protestantism*, 15; Walsham, *Providence*; Burns, *An Age of Wonders*, 57–96.

of the *sacer*, etymologically the sacred enclosure separating the temple from the rest of the city. There were only (protestant) pastors, i.e., shepherds, guides who did not 'possess' the sacred more than any other believer, which led to a 'democratization' of the numinous or at least a sharing of it with other social actors. As it was no longer confined behind rigid boundaries, the sacred could, in fact, be diluted in nature and in history: if God ceased to express Himself only in 'holy matter' – hosts and relics, as well as objects that had had contact with them or had been somehow utilized in sacramental celebrations, or even statues and icons – He could be freely perceived in any event, both natural or human.⁵³ And it is credibly precisely for this reason that scientists and jurors acquired a certain crypto-oracular function. Or perhaps they simply kept it, since the accusatory system, typical of British Common Law, more or less explicitly recognized it for the members of the jury. These men, when making judicial decisions, were perceived to be 'secular priests' of human history, in the same way that scientists felt themselves to be 'secular priests' of natural history.⁵⁴ In this cultural milieu, 'matters of fact' were preferred over 'matters of law'.⁵⁵

In contrast, there existed a Mediterranean and Latin Europe that questioned a nature relatively independent of God, whose interventions corresponded not so much to a general directing of history similar to the actions of Providence (which, of course, was nevertheless accepted), as to punctual violations of its normal course, such as miracles. The latter were set in a specific dimension whose otherness compared to nature was claimed by the Church of Rome even more so after the Council of Trent.⁵⁶ In such contexts the priests did not lose their prerogatives, but instead continued to control a 'sacred enclosure' that was never dismantled nor shared with other social actors. The *sacer* remained the space, separate from nature and civil society, in which were centered the numinous forces that only the Church had the right to control. Scientists and magistrates could not take on any sacred role. Instead, they bolstered their image as experts of knowledge processes, which they had to make clear when explaining how they came to certain conclusions. They could, in fact they had to, draw on the expertise of others, but ultimately they were individually responsible for their own pronouncements. And that is why they explained and demonstrated their every step, at least in theory: in the sciences with the

53 Walker Bynum, *Christian Materiality*.

54 Hunter, *Boyle*; Iliffe, *Priest of Nature*.

55 Shapiro, *A Culture of Facts*; cf. Shapin, *Social History of Truth*.

56 Gotor, *I beati del Papa*, 285–334; Pomata, *Malpighi and the Holy Body*; de Ceglia, *Il segreto*, 128–168.

predilection of, for example, the literary genre of the physical-mathematical treatise, rather than that of natural history which could only yield ‘moral’ certainty;⁵⁷ in the judicial practice with the production of a wealth of written documentation and the development of a legal literature in which, driven by the probative needs of the inquisitorial system, they tormented themselves on algebraic relationships with numerical values attributed to clues, half-proofs, evidence, etc.⁵⁸ In brief,

The aim of Roman-canon legal procedure was to guarantee the certainty of judgements by requiring proof that came close to a demonstration. Whereas the English standard of proof was that jurors should be persuaded in their ‘conscience’ or (from the 18th century) convinced “beyond reasonable doubt,” the Roman canon-idea was that proof should be “as clear as the sun at noon” or “clearer than day.”⁵⁹

What is outlined is, as is clear, a very generic framework of interpretation: the Catholic world, with its unique central authority, was already very complex and structured; it would be inconceivable to offer a unitary view of the multifaceted and intimately dialectical situation of the various confessions and doctrines which emerged more or less directly from the Protestant Reformation. Not to mention the multiform and stratified continental Germanic contexts, in which adherence to the inquisitorial system, despite the persistence of previous habits not always fully compatible with it, even existed together, as the Protestant Reform gained ground, with the attribution to magistrates and scientists of a certain sacred imagery.⁶⁰ Nevertheless, as for example Ole Peter Grell considers when talking about Caspar Bartholin, there were no doubts

about what was needed in order to become a good Protestant physician. Only through the continued personal study of the Bible could faith and piety be obtained. It was exclusively on this basis that the physician could properly comprehend God’s Creation – the Book of Nature – and thereby truly understand his own *métier*.⁶¹

57 Berman, *Law and Revolution II*, 265–269.

58 Rosoni, *Quae singula*.

59 Crawford, “Legalizing Medicine,” 96. Cf. Esmein, *A History of Continental Criminal Procedure*, 133, 170; Daston, *Classical Probability*, 320.

60 Fuhrmann, *Kirche und Dorf*; Geyer-Kordesch: *Pietismus*; Thornhill, *German Political Philosophy*; Withman, *The Origins*; Butler, *Forensic Medicine*, 8–9.

61 Grell, “Caspar Bartholin,” 79.

And it seems John Witte Jr. echoes Grell himself when he says that “the Lutheran Reformation brought fundamental changes to legal and political life. Lutheran Reformers pressed to radical conclusions the theological concept of the magistrate as father of the community, called by God to enforce both tables of the Decalogue for his political children.”⁶² In fact, Martin Luther stated that the magistrate represented God in this earthly Kingdom.⁶³

In general, it would be difficult to draw ethnic, linguistic, political-social, religious, juridical and cultural boundaries which do not always coincide. As it is, in the accusatory system the judges, perhaps because of their almost sacred role, would never have allowed specific external professional figures with their own baggage of knowledge and practices to emerge nor to have importance. Certainly, even in England it was possible to engage physicians, surgeons, barbers, apothecaries and midwives in the investigations, but no formal role was attributed to their expert testimony, of which there remained almost no written trace. It is true, the most attentive historiography has shown how the differences between the accusatory system and the inquisitorial system were not so clear-cut.⁶⁴ However, it is undeniable that while British experts of the body saw their involvement as “generally painful [and] always inconvenient,” those on the Continent mostly worked for remuneration, which gives a certain measure of the peritoneal nature that was recognized to their testimony.⁶⁵

Therefore, it was the inquisitorial system, in particular the Latin one, that, by involving people socially extraneous to the events, became a tool for disseminating an ‘epistemology of experts’, within which medical knowledge had a role to play, still in the form of testimony, but which became greater over time.⁶⁶ This, so much so that we can speak of a truly “graphic obsession,” as for example demonstrated by the over ten thousand volumes stored in the archives of Bologna’s Torrione courthouse.⁶⁷ The sense of vision slowly gained more importance, mitigating its distinctly social characterization, typical of the procedures of the accusatory system, to emphasize a scientific one, at least in the broader sense of the term, which – to echo Foucauldian suggestions – started from the data gathered by the eyes of the expert and moved on to include them in a demonstrative syntax. The road to professionalization was open. Katharine D. Watson sums it up:

62 Witte, “God is Hidden,” 80.

63 Luther, *Werke*, 3, 3911; 51, 211.

64 Pastore, *Il medico in tribunale*, 15–16, 28–29; Porret, *Sur la scène*.

65 Percival, *Medical Ethics*, 106.

66 Alessi Palazzolo, *Prova legale e pena*; Pastore, *Il medico in tribunale*; De Renzi, “Witnesses of the Body.”

67 Cordero, *Riti e sapienza*, 363.

in England, juries became the finders of fact and based their decisions on oral eyewitness testimony; there was no formal mechanism for obtaining evidence from anyone who had not been a direct observer of the events in question. On the Continent, by contrast, judges investigated crime and determined guilt or innocence on the strength of the evidence they gathered and compiled in written dossiers; their need to establish the facts of a case required them to seek out relevant information from anyone who could provide it. It was this feature of Continental practice that was to provide medical practitioners with a key point of entry to the legal system.⁶⁸

It is, however, a fact that between the late Middle Ages and the early modern age, forensic medicine took shape in the areas of the adoption of the inquisitorial system. It slowly imposed itself as a professional practice, then as a theoretical discipline, although there was still a long way to go before its academic institutionalization. In the mid-16th century the role of body experts had already been envisaged in some of the continental laws such as *Ordonnance générale sur le fait de la justice, police et finances* (1539) in France, the *Criminal Ordinances* (1570) in the Spanish Low Countries or the *Constitutio criminalis Carolina* (1532) for the Holy Roman Empire.⁶⁹ A few short decades later, the Sicilian Fortunato Fedele would print the *De relationibus medicorum*, traditionally considered the first book specifically dedicated to legal medicine.⁷⁰ It would soon be followed by the monumental *Quaestiones medico-legales* by the Roman Paolo Zacchia, which, as a reference for generations of physicians and jurists, contributed to the foundation of the discipline and imposed the expression “legal medicine” in the Latin languages.⁷¹ Men like Fedele and Zacchia, of course, did not emerge out of nowhere, but offered a critical synthesis of the knowledge acquired in the previous three centuries.⁷² Above all, they helped to transform what had been single disordered observations, whose rhetoric of truth was based on the accumulation of unselected information, into a true genre with ambitions of systematicity that would be very successful.⁷³

68 Watson, *Forensic Medicine*, 9.

69 *Ibid.*, 8–21.

70 Fedele, *De relationibus medicorum*.

71 Zacchia, *Quaestiones medico-legales*.

72 Simili, “Sulle origini”; McVaugh, “Strategie terapeutiche.”

73 Pomata and Siraisi, *Historia*; Pomata, *Observation Rising*.

0.4 The Construction of an Epistemic Object

It is precisely by taking into account this complex panorama that this volume proposes to explore the paths that, starting in the late Middle Ages, have been beaten in an attempt to make the corpse assume the status of an epistemic object: no longer something to get rid of, at most, to be venerated; but a 'problematic text' to be studied.⁷⁴ A core of condensation around which the various disciplinary knowledges have over time deposited methods and information, until the full recognition, even social recognition, of the judicial autopsy and the impetus given to the other forensic sciences finally occurred in the 19th century.⁷⁵ From this point of view, the book recounts the uncertain paths of formation, in early modern age, of specific knowledge about the dead body and the slow construction of the relationship of familiarity that those who became experts instituted with the law and the magistrates.

The book is divided into three parts. The one entitled *From Divination to Autopsy* explores some episodes connected to the first attempts to use the dead body to ascertain a *lato sensu* legal truth, starting from ordeals and continuing on to the Bologna judicial autopsies. The part shows the efforts made by professionals in various sectors – medicine, theology, law, etc. – to find elements in or on the body which could be attributed with the status of signs with some probative value. In this context, Francesco Paolo de Ceglia examines the origins of the bier right, the different rituals in which it, depending on place and time, was expressed and, above all, the theoretical reflections to which it gave rise. It is interesting to see in the early modern age how, in order not to abandon this judicial custom – which in any case was quite widespread and, with its theatricality, made it possible to resolve the most difficult cases quickly and unquestionably – there was a proliferation of explanations as to why a corpse might bleed before the murderer. In an era of confessional struggles and controversies, the bier right also became the object of contention between miraculists and anti-miraculists. It is for this reason that in this volume it has been presented historiographically as a sort of window through which to look at the overall evolution between the natural, (preternatural) and supernatural in the different European philosophical-natural, medical, religious and juridical cultures. And, at the same time, to fathom the beliefs that were held in the various contexts on the origin of postmortem phenomena and on their procedural usability.

74 Daston, "The Coming into Being."

75 See, for instance, Menenteau, *L'autopsie judiciaire*; Duca, *Cadaveri in tribunale*; Gee and Mason, *The Courts and the Doctor*.

Carmel Ferragud talks about the techniques for identifying cadavers in 15th century Valencia, when great importance was given to the style of clothes, which could have said much about the social position of the victim, as well as tattoos or mutilations, which could reveal whether the corpse was that of a slave or criminal. In particular, however, some “extracorporeal religious signs,” such as the badges imposed on Jews and Muslims, were scrutinized: indeed, if there was one thing that became very important as a way of identifying a corpse, period when ceremonies associated with death were essential in the functioning of the community of the living. The practices aimed at recognition were more connected to giving the corpse the correct social and religious position than to ascertaining its personal identity. This was true at least until the medicalization of such procedures, which occurred in the middle of the 15th century and was due, on the one hand, to the Romanization of the law and, and on the other, to the assimilation of the medical tradition which occurred through contacts with the Arab world.

The part concludes with the contribution of Tommaso Duranti who focuses precisely on the medicalization of certain procedures for establishing judicial truth, which led to the first Bologna autopsies known to us. At the time, on the opinion of the experts in the field of clinical trials, it was not unprecedented: even Galen hints at autoptic practices, and some indications in this sense can be found in the Digest as well. Nonetheless historians seem to converge on the view that the 13th century was a turning point, not only because in that period the use of medical expertise became more common, but first and foremost because it made its way into legal theory and legal codes. This implied, however, the need to give knowledge of the dead body the status of *scientia*, which not everyone was willing to attribute to it. Therefore, the chapter analyzes the epistemological re-elaboration that accompanied the post mortem examinations and the new emphasis that, especially in the Bologna context, was attributed to empirical approaches and sensory knowledge.

After examining the first attempts, the volume dedicates the second part to *The Uncertainties of the Anatomical Gaze*, which seeks to shed light on the slow construction and elaboration of this knowledge in the early modern age. Going forward a few centuries after the situation outlined by Tommaso Duranti, Allen Shotwell establishes a significant comparison between anatomical dissections and autopsies in the 16th century, when both had already, at least partially, earned a certain scientific and social credit. Certainly, dissections and autopsies followed procedures, and were set in a rather wide variety of social frameworks: the former were often public (not those carried out for the purpose of research, obviously) and conducted according to the long and ritualized time

frames of the feast; the latter, were carried out much more privately and in a shorter period of time. In dissections one offered, along with a 'philosophical' lesson, a performance aimed at cannibalizing, i.e., dismembering all the way down to the skeleton, the body of those who had been stained with particularly fierce crimes to inflict a post-mortem punishment upon them. In autopsy often only the three main cavities – head, chest and abdomen – were explored in order to determine the cause of the subject's death, and sometimes the bodily signs of his or her moral superiority. Quite different practices, then. Nevertheless, it cannot be forgotten that the modalities and techniques of dismemberment and the semantization of the body were very similar and that the practices were carried out by the same individuals.

Having in mind this complexity, but also convergence, of techniques, protagonists and horizons, Alan W.H. Bates takes up the studies collected in his previous volume on the subject and deals with a specific case that is to some extent paradigmatic: that of the "examination" of the so-called "double monsters," later known as Siamese or conjoined twins. One thing is sure: despite their scarcity, they comprise the great majority of recorded infant post-mortem examinations before the late 17th century. This because they embody an ambiguous and liminal condition – are they human or not? one or two individuals? – in being described they were often little more than a pretext for commentators to promote their own agenda: rather than seeking to make new discoveries, they saw what they expected to see and imposed preconceived interpretations. In other words, these cadavers were formidable 'texts', which, precisely because of their complexity, could support the most disparate medical, philosophical-natural, theological, political and juridical positions.

However, to interrogate a corpse it was necessary to be in contact with it (unless, as many did, you wanted to decode the signs on the basis of descriptions provided by others). Little has been written exploring how fear of infection influenced post-mortem investigations in the early modern world. Dead bodies rotted, as everyone knew. Moreover, some might continue to harbor the contagions that killed them. It is in light of these considerations that Kevin Siena has explored how contagion-anxieties influenced investigations of corpses in 17th-century London. Such fear thus constitutes an important contextual factor for understanding the circumstances under which the corpse-as-evidence was explored – or not explored – in early modern England. Resuming a case examined a few years ago by Ole Grell, Siena explores this tension within the context of the 1665–66 London plague epidemic. In that context, the debates not infrequently hinged on revealing assertions about factors like bravery and fear. As empiricism gained value during the scientific revolution some dissectors

linked masculine bravery to intellectual advancement by maligning as cowards those who shied away from handling cadavers.

The same ambivalent behavior towards the corpse is explored by Massimo Galtarossa, in a chapter that, while taking an in-depth look above all at the religious scruples of the people of the past, focuses on the city of Padua between the 16th and 18th centuries. He argues that the entry of anatomical speech into the procedural steps of the old regime collided with strong resistance against the use of the body to become aware of, and then to prove, legal facts. The anthropological unease generated by the desecration, opening and handling of corpses in the 16th, 17th, and 18th centuries, which was not yet sufficiently recognized by Venice, discredited the practice of dissection in broad ranges of society, and the speech given on its supposed merits was not limited to involving the religious and judicial authorities. The customary practices used, at least on paper, corresponded to a system of rituals through which consent to the anatomical spectacle and the knowledge derived from it was organized.

Upon having reconstructed the theoretical debate and the practical difficulties encountered in making the corpse assume the status of an epistemic object, the third and final part, entitled *Corpses and Evidences*, is dedicated to specific case studies of the use of the evidence provided by the corpse for the purposes of the ascertainment of judicial truth. Western societies have always asked why someone would commit suicide. However, the answers supplied have been determined by specific religious, legal and social contexts as well as for different purposes. That is why Alexander Kästner analyzes how early modern lawyers, respectively Catholic and Reformed theologians and physicians tried to explain suicides and in so doing, created a whole typology of suicides, with different kinds of evidence that they used to bargain and struggle for the prerogative of interpretation. He first shows how protagonists developed specific criteria and procedures based on ancient and medieval traditions and customs, in order to determine whether a suicidal act could be deemed self-murder or not. Secondly, he addresses the question of how medical expertise, and the kind of evidence its practitioners could provide, was bound to previous knowledge. As modern suicidology has clearly demonstrated, any piece of new evidence in a suicide case is indeed capable of influencing our understanding of the tragedy that can probably never be fully explained.

The unexpected discovery of the corpse of an infant almost always sparked a criminal investigation into potential infanticide. This kind of narration can be seen as a cause célèbre of the centuries following the Reformation, as reformers' concerns about morality focused almost obsessively on sexuality.

Margaret Brannan Lewis, referring to the results of her previous volume on the subject, explains how in early modern Germany, infanticide was a crime with a singular, clear definition: an unwed mother, wanting to hide her sexual indiscretions, kept her resulting pregnancy and childbirth a secret, and killed her newborn child. Prosecuting authorities did consider many kinds of evidence when possible. Some case files preserved supposed abortifacients, letters from witnesses, and statements of character. The location of the alleged crime was also evidence that could reveal intention: could the child have died from a fall into the privy? Was a corpse found under a mattress proof of intent to smother it? Also important as evidence were the bodies of the mothers themselves, which were poked and prodded for signs of recent pregnancy and parturition. Did the woman's breasts produce milk? Did the firmness of her belly reveal a recent pregnancy? But by far the most important evidence was the corpse of the child.

From a more theoretical perspective, Diego Carnevale's essay aims to analyze the place of medico-legal expertise in both the medical and juridical treatises of the 17th and early 18th centuries by comparing two different realities of continental Europe: France and the Kingdom of Naples. The purpose of this comparison is to determine which factors most influenced the emergence of the discipline in judicial practice. The two case studies examined in this chapter highlight the role played by politico-institutional factors in the process of building forensic medicine, over the period between the emerging importance of medical expertise in judicial procedure, during the 16th century, and the Enlightenment reflection regarding public medicine.

Up to the 18th century, physicians had a very vague idea of death by drowning. It was described as asphyxia, i.e., cardio-circulatory arrest produced by respiratory impairment. Lucia De Frenza and Caterina Tisci finally show how a more precise definition was only given at the beginning of the following century. The two authors intersect social, religious, scientific and cultural history to demonstrate how the debates on the borders between life and death that developed between the 18th and 19th centuries made it possible to conceive of drowning as a drowsing condition, which for a certain time was not death. The moment of passage expanded well beyond the experimentally established threshold to justify the use of resuscitation practices.

In the mid-18th century the use of autopsy was already relatively widespread. Less used was the term, which in antiquity was not used in the medical field, but rather in religious and mystical contexts. Testimony of this is the entry *Autopsie* of the *Encyclopédie* of Diderot and d'Alembert: "The autopsy of the ancients was a state of the soul in which there was an intimate trade with

the gods. It is thus that in the mysteries of Eleusis and Samothrace, the priests called the ultimate explanation that they gave to their proselytes, that is, so to speak, the enigma.”⁷⁶ This volume is dedicated precisely to this sort of ideal filiation, but also to the liberation, of the modern autopsy from more spiritual practices.

76 “L’autopsie des anciens étoit un état de l’ame où l’on avoit un commerce intime avec les dieux. C’est ainsi que dans les mysteres d’Eleusis et de Samothrace, les prêtres nommoient la dernière explication qu’ils donnoient à leurs prosélytes, & pour ainsi parler, le mot de l’énigme.” Mallet, “Autopsie.”

PART 1

From Divination to Autopsy



Saving the Phenomenon: Why Corpses Bled in the Presence of Their Murderer in Early Modern Science

Francesco Paolo de Ceglia

Now, one finds among all peoples, savage or not, at all times and in every part of the world, the conviction, clearly or obscurely formulated, that there subsists between the soul of the blood of the victim and the murderer (as well as the places surrounding him) an effective relationship – as has been said earlier, a *vis sanguinis ultra mortem*.¹



1.1 A Tragedy as an Introduction

In Shakespeare's grand retelling, the funeral procession of King Henry VI proceeds slowly. Lady Anne, widow of Edward, son of the murdered king, stops the march and laments the fate of the House of Lancaster. She then asks that the sad procession continue, whereupon the deformed Duke of Gloucester, who is responsible for the crime, appears and blocks the hearse. At that moment something remarkable happens, which Lady Anne (who would soon be betrothed to the villainous Duke) describes and interprets:

O, gentlemen, see, see! dead Henry's wounds
Open their congeal'd mouths and bleed afresh!
Blush, Blush, thou lump of foul deformity;

¹ "Man findet nun bei allen sowohl nichtverwilderten als selbst verwilderten Völkern aller Zeiten und Zonen die theils klare, theils dunkle Ueberzeugung geltend von einem zwischen des Gemordeten Blutseele und dem Mörder (somit auch dessen Umgebungen) fortbestehenden effectiven Rapport (als einer, wie bereits gesagt worden, *vis sanguinis ultra mortem*) [...]." von Baader, *Über die Todesstrafe*, 328.

For 'tis thy presence that exhales this blood
 From cold and empty veins, where no blood dwells;
 Thy deed, inhuman and unnatural,
 Provokes this deluge most unnatural.
 O God, which this blood madest, revenge his death!
 O earth, which this blood drink'st revenge his death!

Richard III, Act I, Scene II, vv. 229–3

The belief that a cadaver that 'died badly' would bleed in the presence of its assassin is a literary *topos* with a long history.² Indeed it can be found in much older works, like *Yvain* by Chrétien de Troyes (vv. 1175–1200), written at the end of the 12th century, in its adaptation *Iwein* by Hartmann von Aue (vv. 1355–1364) as well as in *Nibelungenlied* (vv. 987–990), both written in the first half of the 13th century.³ However, it is not mere narrative fiction: the practice, which, for expressive immediacy, I, like the physicians of the early modern era, call cruentation [*cruentatio cadaverum*], but which was called by different terms in different countries when referring to its judicial aspect – in Germanic Europe, *Bahrrecht*, *Bahrprobe*, *Bahrgericht*, *Blutungsrecht* etc.; in Latin Europe, *jus* or *judicium feretri* or *sandapilae* or *cruentationis* or *aimatoxis* etc.; in Anglo-Saxon lands, *bier right* etc. – was relatively widespread and, with varying validity depending on the era and context, was admitted as evidence by magistrates in murder investigations.⁴ The legal literature, albeit with many doubts, continued to speak of it explicitly at least up to the beginning of the 18th century, at which time that judicial practise was abandoned, although it was maintained in an even more underground manner – hence that much more difficult to document – in peripheral contexts up to relatively recent times.⁵

The bleeding of cadavers in the presence of their presumed assassins was, in its theatricality and symbolism, a formidably efficacious tool which the judges did not want to lose, because it made it possible to 'externalize' the decision-making process: to attribute it to the outcome, in theory unquestionable, of an

2 Floyd-Wilson, *Occult Knowledge*, 47–72.

3 Bildhauer, *Medieval Blood*, 41–50.

4 For a review of the sources up to the beginning of the 18th century, see Garmann, *De miraculis mortuorum*, book 2, chap. 7, 537–625. For literature with a more historical approach, see Majer, *Geschichte der Ordalien*, 113–122; Patetta, *Le ordalie*, 196–202; Lehmann, "Das Bahrgericht," 23–45; Brittain, "Cruentation," 82–88; Boureau, "La preuve," 247–281; Erchingen, *Bahrprobe*; Schild, *Folter*, 35–36.

5 For example, Müller-Bergström, "Gottesurteil," 994–1064; Nottarp, *Gottesurteilsstudien*, 207–208; Plessix-Buisset, *Le criminel*; Silverman, 'Pour savoir la vérité'; Reik, *Le besoin d'avouer*, 265–272.

event independent of the will of the magistrate, who could thus solve a case, in a certain sense without assuming responsibility.⁶ James Q. Whitman shows:

Procedure in such cases does not serve a proof function: it does not aim to eliminate our ignorance about the facts. Instead, it aims to reassure those of us who act as judges. It offers us a kind of moral safe harbor in administering punishment [...]. That does not mean that premodern trials were never concerned with factual proof. Of course they sometimes were. Nor does it mean, to say again, that modern procedures never offer moral comfort. Procedure in any legal system sometimes serves both of these functions. But the mix has changed.⁷

Nevertheless, the acceptance of this practice implied the discussion of at least two types of problems of a theoretical nature: one had to do with the inconsistency of the emission of blood; the other with its cause, which remained unknown. In other terms, how could evidentiary value be attributed to a phenomenon that only took place sometimes and for which there was no common explanation? This chapter, after addressing the origins and diffusion of that judicial practice, attempts to answer this question, supplying general taxonomies which impose order on the hundreds of early modern texts. The story that this chapter hopes to tell is that of the numerous hypotheses set forth in order to avoid abandoning that which, in reality, was the *quod erat demonstrandum*, i.e., that there was a cause and effect relationship between the presence of the presumed assassin and the bleeding of the cadaver.

One aspect of the dispute must be clarified: it was not only the jurists who debated cruentation, but also physicians, natural philosophers and theologians. In fact, the possibility that the blood of a dead person might have some form of revivalism in the presence of the murderer called into question far more wide-reaching issues on the boundaries between life and death as well as on the relationship between the natural order and the miraculous. This was particularly evident starting from the Protestant Reformation, when, with the criticism of Catholic miracles, cruentation accelerated, for example, in the Lutheran and Anglican contexts its process of naturalization, while halting it in Catholic ones. This is why the evolution of the discussions on cruentation can also be taken as a window through which to look at the relationship between life and death, natural and miraculous, in the various juridical, philosophical-natural and theological cultures of early modern Europe.

6 Spreckelmeier, "Vom erzählten Brauch."

7 Whitman, *The Origins*, 13.

1.2 The Origins

It is not certain when the practice of cruentation began. According to some, the first clear mention of its judiciary use dates back to the 10th century. The mention is made in the tale of the murder of Dub, King of Scotland, which, however, was passed down in sources dating from a few centuries later: they should be treated with great caution.⁸ In truth, as Alain Boureau, among others, has shown, there are no certain accounts that can be dated to before the end of the 13th century, when, on the contrary, discussions of the topic multiplied.⁹ Actually in that period the concept of identity itself was changing, as Caroline Walker Bynum explains:

Although certain early thinkers such as Hugh of St. Victor and Robert of Melun used Platonic concepts that made the soul the person, schoolmen after mid-century usually understood “person” as a composite of body and soul. According to this definition, a self is not a soul using a body but a psychosomatic entity, to which body is integral.¹⁰

The body, living and dead, acquired an unprecedented protagonism. Winston Black connects the explosion of interest in the literature between the 12th and 13th centuries to changes in the theology of Scholasticism – before the definitive imposition of Thomas Aquinas and his doctrine of the unity of substantial forms – which induced some thinkers to explore the possibilities of a residual vitality in human remains.¹¹ So much so as to think that in that temporal phase the corpse acquired its own dimension as an “epistemic object.”

Be that as it may, it is a fact that Europe began to fill with bodies that bled in the presence of their killer in conjunction with a change in the common European sensibility, when, as has been shown for example by Hans Belting, the images in the visual arts became more realistic and bloody, and a peak in stigmatized cases of saints and visions in which the blood flowed profusely, was recorded. Not to mention the outbreak of Eucharistic miracles, connected with the debate on transubstantiation.¹² In short, there was the spread of what André Vauchez called the “physiological wonders,” linked mainly to a blood

8 Buchanan, *Rerum Scotticarum historia*, 180; Pitcairn, *Ancient Criminal*, vol. 3, 182–199.

9 Boureau, “La prevue.”

10 Walker Bynum, *The Resurrection*, 135.

11 Black, “Animated Corpses.”

12 Walker Bynum, *Wonderful Blood*, 1–2; Macy, “Theology of the Eucharist.”

which seemed more alive than ever in the last centuries of the Middle Ages.¹³ The body, in particular the dead body, seemed to acquire a sort of intimate activity and capacity to communicate, so much so as to induce the people of the period to investigate it semiotically.

The only certainty in the history of cruentation is that there are documents on it only from the period of its maturity: in fact, in the 13th century the ritual already seems to have been relatively common.¹⁴ Indeed, the practice seems to have taken shape in the late Middle Ages. But then why did many refer to the Bible or Greco-Roman sources to defend its use? “Vox sanguinis fratris tui clamat ad me de agro,” “The voice of thy brothers blood crieth unto me out of the ground,” said God to Cain (*Genesis*, 4.10): the biblical passage and the theme of *vox sanguinis* were, in fact, mentioned obsessively in the literature on the topic.¹⁵ The same was true for references, for example, to Homer (*Iliad*, xvii, 79–86), Plato (*Laws*, 865 d6–e10), (Pseudo) Aristotle (*Prob.* 6), and Lucretius (*De rer. nat.*, 4, 1046–1051). However, under careful analysis, these citations can only describe phenomena vaguely comparable to cruentation, and, moreover, only if considered in very wide and indefinite terms. After all, there are no cultures in which blood has not been assigned symbolic value and special dynamic properties. In brief, the mention of the ancient sources was clearly a way to institute a continuity with the past and to establish historically, and with authority, much more recent customs. However, it does not help us to understand the origins of the practice.

It is a shared belief that cruentation should be situated, at least for a few of its aspects, within the framework of the broader legal institution of the ordeal. It would, for the sake of accuracy, be an ‘oracular ordeal’ or one of ‘fate’, in which, unlike the ‘ordeals of the elements’ – like walking on fire, being tied up and immersed in water (and surviving), etc. – the suspect did not have to pass a performative test, but rather be judged on the basis of the occurrence or nonoccurrence of a phenomenon, that he or she could not (theoretically) influence in any way.

According to an ancient and authoritative tradition of legal historians, the ordeal – although accepted in many cultures of the ancient world and in contexts quite different from Europe –¹⁶ finds its roots, at least in its medieval configuration, in the customs and beliefs of the Germanic peoples

13 Belting, *L'image et son public*, 58–69; Walker Bynum, *Christian Materiality*, 21–22; Vauchez, *La sainteté en Occident*, 518.

14 Brunner, *Deutsche Rechtsgeschichte*, vol. 2, 404–405.

15 Platelle, “La voix du sang,” 161–179.

16 Thomas, *Anthropologie de la mort*, 409–410.

before Christianization.¹⁷ More recently, a specifically Frankish origin has been discussed.¹⁸ However, one ancient tradition is interesting: in front of a cadaver, Jews invoked the pardon of the departed for all the injustices that he had suffered. If these were too serious, the body lost blood. This led some scholars to set forward a 'Jewish hypothesis', that would connect cruentation with beliefs that were fairly widespread in the Jewish communities of central Europe in the late Middle Ages (remember that, for *Levit. 17:11* "the life of the flesh is in the blood").¹⁹ The hypothesis, which does seem all that attractive and which might not be completely different from the 'Frankish hypothesis' (Jewish beliefs in the post mortem vitality of the blood could be connected, in medieval central Europe, with the notion of the ordeal), would nonetheless require, in the current state of affairs, the support of more solid proof. Be that as it may, as a matter of fact in the late Middle Ages episodes of cruentation were used in the anti-Jewish Polemic, as "the effusion of the victim's blood not only established the Jews' guilt [in the murder], but had a parallel in the flux of blood Jews experienced as divine punishment for the 'curse of the parents'."²⁰

Perhaps less likely are a few of the perplexities advanced by Christian Villads Christensen, author of the only, highly erudite, modern monograph of genuinely historical research dedicated to the subject, but which is relatively unknown, due in large part to its having been written in Danish. Having found, for the 15th and 16th centuries, a relatively large number of Latin sources, he was led to question the Germanic genesis of a judicial practice, which in Italy, in his opinion, became common in concurrence with the affirmation of a sort of "Renaissance neo-paganism."²¹ However, upon more careful examination, the sources in question, more than attesting to a 'Mediterranean' or, specifically, Italian familiarity with cruentation, seem to document the curiosity of the 'Latins' about 'exotic' or, in any case, 'imported' traditions. In brief, it is true that the Italians discussed cruentation in the centuries in question, but it is also true that: 1) up to the first decades of the 17th century, the criminalistic and medico-legal debates were, in fact, largely Italian and in any case 'Latin';²² 2) although the discussions should be interpreted as expressions of 'scientific' curiosity about the subject, the historical documents available on the actual

17 von Amira, *Grundriß*, 277–280. But there is a long tradition of that type of study. See, for example, Schottelius, *De singularibus*, 60–104.

18 Bartlett, *Trial by Fire and Water*, 4–12.

19 Lea, *Superstition*, 315–323. Cf. Kohut, "Blood Test," 129–144. On the subject, see the account of Judah ben Samuel related by Christensen, *Baareproven*, 66.

20 Resnick, "Cruentation, Anti-Jewish Polemic," 114.

21 Christensen, *Baareproven*, 183–184.

22 Crawford, "Legalizing Medicine."

use of the judicial practice relate mainly to Germany,²³ France,²⁴ Holland and Belgium,²⁵ Denmark,²⁶ England²⁷ and Scotland.²⁸ In other terms, the impression is that the Italians spoke about it, while the practice was in use mostly on the other side of the Alps.

The institution of the ordeal was not expressly considered in Roman law, but, as has been shown, it integrated well in the *Ius commune*.²⁹ Differently from what has been asserted, its assimilation was not simply a tribute to a “primitive mentality.”³⁰ On the contrary, this was the result of the reworking by the new legal system of investigative tools which at the time had their own rationality as well as an evident practical use.³¹ As is known, the Roman Church condemned the participation of clerics in ordeals in 1215, during the fourth Concilium Lateranum. For some, this was an expression of the Church’s late coming to awareness, which, in any case, brought an end to the practice. However, this statement is doubly incorrect. First of all, there had been condemnations much earlier, which had, for example, led to the conclusion that “they who draw the sacraments of the Lord ought not to agitate the judgment of blood.”³² Secondly, the indications from Rome would be not uncommonly disregarded by the local communities, especially those most distant geographically. Here, where turning to God’s judgment was more deeply rooted, inertia would be stronger than the prohibition,³³ so much so that Mathias Schmoeckel affirmed that “the history of the ordeal after 1215 still remains to be written.”³⁴

In this framework, cruentation was exceptionally long-lived, perhaps because, much more than other ordeals (think of water or fire), it was susceptible to naturalization: it could be reinterpreted in non-supernatural terms. In my

23 Francisci [Finx], “Das Baahr-Recht,” 336–345; Christensen, *Baareproven*, 200–201.

24 Papon, *Recueil darrests*, vol. 2, 1329; Plessix-Buisset, *Le criminel*, 265–272; Gauvard, “*De grace especial*,” 179–189.

25 Lemnius, *Occulta naturae miracula*, 118; Moorman van Kappen, “Zur Geschichte der Bahrprobe,” 79–98.

26 Christensen, *Baareproven*, 248–287.

27 *Ibid.*, 209–217; Gaskill, “Reporting Murder.”

28 Boece, *Scotorum historia*, 222 v.; Buchanan, *Rerum Scoticarum historia*, 180; Kinloch, *Ancient Scottish Ballads*, 11.

29 Schmoeckel, “*Ein sonderbares Wunderwerck*,” 124–164, particularly 148–157.

30 Fraher, “The Theoretical Justification”; Van Caenegem, “Reflexions,” 263–279; Barthélemy, *Chevaliers et miracles*, 225–260; Marrone, “Magic and the Physical World.”

31 Damaska, “Rational and Irrational,” 69–78.

32 “Non debent agitare iudicium sanguinis qui sacramenta Domini tractant.” *Corpus Iuris Canonici*, quest. VIII, 30. On the subject, see Baldwin, “The Intellectual Preparation,” 612–636; Whitman, *The Origins*, 50–90.

33 Bartlett, *Trial by Fire and Water*, 130–135.

34 Schmoeckel, “*Ein sonderbares Wunderwerck*,” 137.

opinion, this very aspect was a propelling force in its diffusion after the (more or less binding) condemnation by the Church: cruentation had indeed the same function as the ordeals, but could not formally be considered one of them. It was not so much God who expressed himself through the body, but the bodies which spoke (as much as the difference might make sense in contexts in which the boundaries between natural and miraculous were still being defined). The status of cruentation as a not necessarily miraculous phenomenon rendered it more compatible with the juridical and medical-philosophical sensibility of the early modern era, especially once, with the Protestant Reformation, many began to be highly suspicious of miracles and punctual divine interventions in human history. This led, from a strictly judicial point of view, to a *diminutio* of its status: from *Probe* or proof, which it had been, or element which, in virtue of its divine origin, gave the certainty of responsibility, and, therefore, made it possible to put the accused to death immediately, cruentation became more commonly a clue or, for some, a half-proof, in any case an element with imperfect evidential validity.³⁵

1.3 Cruentation and the Law

1.3.1 *Status*

What makes it difficult to speak of cruentation as a judicial practice is that, although widely used in various countries, it was never expressly codified.³⁶ The Italian jurist and magistrate Ippolito Marsili recounts:

And I remember when another time, during my youth, I saw an admirable and stupendous thing when I was governor of the city of Albenga [...]. In fact, a man had been killed during the night and the assassin was not known: nevertheless, there were many suspects and an old man told me, "Sir Governor, if you want to know the truth about this homicide, have the cadaver of the assassinated man brought before you, then have all the suspects of the homicide called. And one after the other have them come to the place where the cadaver is: when the real murderer arrives, the wounds of the cadaver will bleed again and you will be sure of the homicide [in truth, of the murderer]." Upon hearing these words, I had the cadaver brought before me and I had the murder suspects called one by one. And when the real assassin arrived, from the wounds of the cadaver

35 Fraher, "Conviction."

36 Platelle, "La voix du sang."

blood began to flow, which amazed me greatly; nevertheless, I did not say anything, not trusting such a thing, which is not a proof anywhere. Nevertheless, after the event, over the course of many days, sufficient clues were found for the torture of that culprit, whom I had arrested. He, given the abundance of the clues, confessed to having killed that man, after which I condemned him [...].³⁷

The episode, which took place in the last decade of the 15th century, clearly explains, in my opinion, the status of cruentation: it was not known by the young magistrate, bearer of written legal culture, for whom that practice was “not a proof anywhere,” but only by the old man, without specific competences, bearer of the oral culture.

1.3.2 *Ritual*

For its very unofficial nature, the judicial practice included highly variable rituals, depending on the local customs and the fantasy of the magistrates. The first real juridical source, though not prescriptive – therefore, not literary or philosophical-natural – in which reference is made to cruentation is the *Freisinger Rechtsbuch*, in 1328. *Bahrprobe* is described as a voluntary practice, which the suspect could choose to undergo to exculpate himself (showing himself, in turn, to be prepared to accept the consequences of a negative outcome). The ritual took place within the fifth day of the murder, when the cadaver was brought to the *Ring* of the court, its wounds were washed with water and wine, dried and examined by a physician or, if there was not one available, by two wise men, to determine if, in the meantime, any change had taken place. At this point,

37 “Memini tempore juventutis mea vidisse rem mirabilem, et stupendam, dum eram Gubernator civitatis Albinligana [...]. Nam fuerat mortuus quidam homo nocturno tempore, et nesciebatur a quo, attamen multi erant suspecti; quidem senex dixit mihi: ‘Domine Gubernator, vultis scire veritatem hujus homicidii? Faciatis coram vobis portari cadaver, postea faciatis vocari illos, qui sunt suspecti, unus post alium ad cadaver accedat; et cum supervenerit verus homicida, vulnera illius fluent sanguinem de novo, et sic habebitis certitudinem’. Quo audito, feci portari cadaver coram me, et suspectos feci vocari; et cum supervenit verus homicida, vulnera illius inceperunt mittere sanguinem, de quo summe fui admiratus, attamen nihil dixi, non praestans fidem tali rei, quae nullibi probatur; attamen ex post per plures dies reperta sunt indicia sufficientia ad torturam contra illum verum reum, quem capi feci, qui habita copia indiciorum absque tortura confessus fuit se occidisse illum hominem, et postea eum condemnavi [...].” Marsili, *Practica criminalis*, 197–198.

the accused has to circle the casket on his knees for three hours, kiss the dead man, call him by name and pronounce the following words, “I swear to God and you that I am innocent of your death.” If he does it for three hours and the wounds do not change, he is free in the eyes of the friends and the court. But if the wounds change, because they are sad, then he has become guilty of the death in the eyes of the friends and the court: he judged himself, because he chose which test to undergo without anyone forcing him to do it.³⁸

Among the sources from the 16th century there is one that is particularly important, because it is accompanied by the one of the two only images of the ritual ever passed down (Figure 1.1). It is the Lucerne *Chronik* by Diebold Schilling, which tells of the soldier Hans Spiess, who neglected and was unfaithful to his wife Margret. Once, after having spent the night with her, he left the house and went to Berne. The woman was then found dead, but without signs of aggression or wounds. She was buried, but many began to think that it had been a murder. Word had reached the legal authorities, whose suspicions fell onto Hans, who was arrested:

So, the woman was disinterred [20 days had passed] and he, who had been detained at Ettiswil, shaved and nude, was brought before the casket; he was told to put two fingers on the right side of the dead woman’s chest and to take an oath in the way that he had been taught.³⁹

The cadaver bled and the man, subjected to the torture of the wheel, confessed. In the end he died. Other texts speak of different rituals, which, in any

38 “Man sol in auf den rinch tragen fur daz recht und sol di wunden lazzen truchen, und sol man in schwamen mit einem wunt artzt, ob man in hât, oder sust zwên weis man, ein welcher gestalt si sein, ob si sich verchêrn, daz man daz erchennen chunne. Er sol auch dreistunt, der daz gericht tuot, an seinen chnien um di pârgên und sol den tôten chussen und sol in nennen und sol diseu wart sprechen: ‘Ich ziuch an got und an dich, daz ich an deinem tôd unschludich pin’. Alz er daz dreistunt tuot, habent sich di wunten nicht verchêrt, sô ist er ledich von den freunten und von dem gericht. Habent aver sich di wunten verchêrt, daz si trôrich sint, sôist er des tôts schuldich worden den freuten und dem gericht und hât di urtail uber sich selben geben, daz er sich daz gericht an genomen hât, wan in sein niemant genoett maecht haben.” *Freisinger Rechtsbuch*, art. 273, 314–315.

39 “Und also ward die tott frow ussgraben und er gar beschoren, ouch gefenglich gan Ettiswil, nackent abzogen und zuo der bar gefürt und geheissen, zwen finger uff ir rächten Brust ze legen und gelerten eyd ze sweren, wie obstat.” *Die Schweizer Bilderchronik*, 20–21. The episode is also recounted in other sources: *Valerius Anshelm’s, genannt Rüd*, vol. 3, 254; Etterlin, *Kronica*, 319–320. On the subject, see Dinzelbacher, *Das fremde Mittelalter*, 27–35.



FIGURE 1.1 Cruentation in the episode of Hans Spiess

case, had to be public. They might include pronouncing the name of the dead several times, like in the *conclamatio*, but also in the exorcistic practices or the invocation of occult powers; carrying a lighted candle; passing three times near or, in some cases, over the cadaver; touching or even putting a finger in the wounds, the mouth or the belly button of the dead etc. Some required the suspect to move closer and then farther away to ascertain that the cruentation had the same intermittence.⁴⁰ The French physician François Ranchin even

40 d'Afflitto, *Amplissima commentaria*, vol. 3, rub. 31, 4, n. 34.

speaks of a sort of ‘control group’: besides the suspect, it was necessary to subject people who were clearly innocent or extraneous to the event to the test, to ascertain that the body did not also bleed near them.⁴¹

1.3.3 *Time*

There was a wide variation of time periods within which to carry out the proof: from seven⁴² to, sometimes, twelve hours from the murder to two-three days.⁴³ However, for some there were no rigid time limits, so much so that the French jurist Nicolas de Bohier speaks, for example, of a cadaver disinterred after two months.⁴⁴ In any case, almost everyone considered the emission of blood after a sufficiently long time an indicator of the supernatural origin of the phenomenon.

1.3.4 *Modality of the Emission of Blood*

For the majority of interpreters the blood should come out of the (only) mortal wound; however, there are also authors for whom the emission could be from the nose, eyes, mouth, ears or any other orifice of the cadaver.⁴⁵ Or, in a somewhat more theatrical manner, the blood could flow at the same time from the victim’s wounds and the assassin’s nose.⁴⁶ However, according to some, much depended on the type of death: if, for example, the victims were strangled or suffocated, i.e., they were not allowed to breathe, the blood would flow from the nose and mouth.⁴⁷ Or from the mark left by the wedding ring, if the offender had been the spouse.⁴⁸ Instead, for others, cruentation could take place only if the death happened *per ferrum*. There are those who believed that the blood had to flow towards the murderer, while for others the direction was not important; for many it was not necessary for the blood to flow or splash, but it was enough that it seethe (for example, that a rosy foam appeared at the mouth or on the wounds of the cadaver). There is also no agreement on whether there could be cruentation if the murder was unintentional. In the same way, many ask if the flow of blood could also take place in the presence

41 Tesauro, *Novae decisiones*, dec. 173, 94rv.; Ranchin, “Traicté sur les causes de la cruentation,” 720.

42 Vallerioli, *Observationes*, book 2, obs. 7, 101.

43 Tesauro, *Novae decisiones*, dec. 173, 193r–194v.

44 de Bohier, *Prima pars*, quest. 156, 177v.

45 Ibid., quest. 156, 177v.

46 Zacchia, *Quaestionum medico-legalium*, vol. 1, book 5, tit. 2, quest. 8, n. 2, 387.

47 Bossi, *Tractatus varii*, De homicidio, n. 106, 277.

48 *The Diary of Dudley Ryder*, 332.

not of the perpetrator of the crime, but the instigator or he who covered for the murderer and expressed solidarity with him or he who simply had a moral responsibility.⁴⁹

1.3.5 *Contradictory Testimony and Variations in the Practice*

As early as the end of the 16th century there were those who, like the German physician Andreas Libavius, author of a wide-ranging treatise on the subject, were frankly embarrassed by the enormous variability of the practice, with its sometimes contradictory rituals.⁵⁰ For instance, through Paolo Zacchia many jurists of 'Latin' culture found out about a variation in which it was necessary to cut off the thumb of the murder victim, along with the muscles of the hand that were attached to it. The thumb was preserved for 10, 12, 15 or more days: if it bled in the presence of a suspect, the next step was torture.⁵¹ Zacchia's source was the Bavarian scientist Johannes Faber, but this judicial practice, once again with numerous variations, is also mentioned in other sources from continental Europe. The physician Hermann Neuwaldt, for example, tells of the custom of cutting off other parts of the victim as well, drying or even smoking them, waiting for them to bleed in the presence of the murderer. This practice, relatively common in both Germany and Holland, was generally called *Scheines Recht* or *Scheingehen*.⁵² It was a judicial custom that should perhaps be placed in connection with the custom, attested to in some areas of Germanic Europe, of desiccating the victim's body and keeping it exposed in the family home until the relatives had done it justice. In any case, the cruentation of a part or of a whole 'dry' cadaver was on average more frightening than that of a 'fresh' one. Excluding an explicit intervention by God, there was indeed no way that blood could 'naturally' flow from a dry member. It was, therefore, necessary to postulate the intervention of the devil, which could not be tolerated.

Probatory value. In literary fiction everything was relatively clear: the test of blood always provided a certainty of responsibility. In the scholarly literature, however, the matter could appear far more complex.⁵³ Indeed more for theologians, natural philosophers and physicians, less for legal experts who, apparently more interested in the resolution of cases than in the identification of the causes of the phenomenon, were relatively certain in affirming the efficacy of the custom. In countries that remained loyal to the accusatory system, notably

49 Zacchia, *Quaestionum medico-legalium*, vol. 1, book 5, tit. 2, quest. 8, n. 5–8, 387.

50 Libavius, *De cruentatione cadaverum*, 172–173.

51 Zacchia, *Quaestionum medico-legalium*, vol. 1, book 5, tit. 2, quest. 8, n. 8, 387. Cf. Pedrazza Gorlero, "L'accusa di sangue," 1–15.

52 Neuwaldt, *Exegesis*, n.p.

53 Marcos Marín, "Sangre y tinta."

England and Scotland, this faith in cruentation can be extracted mainly from the examination of individual trials.⁵⁴ In fact, there is no adequate criminal literature that explains why this practice “hath seldome, or never, fayled in the Tryall.”⁵⁵ The debate was instead more lively on the continent, where the inquisitorial system had been adopted.⁵⁶ Here, in the early modern age cruentation was not yet seen overridingly as proof, which would in itself lead to conviction, i.e., the putting to death of the accused. But it was considered more as a clue, nevertheless usually sufficient to proceed with torture.⁵⁷ The French and the German remained among those most attached to this position which could be called ‘continental strong’.

Following the indications of the legal historian Ubaldo Villani-Lubelli, a taxonomy of the opinions of the continental jurists can be roughly articulated as follows:⁵⁸

1. *Indicium perfectum*, or at least *credibile et proximum*, in any case sufficient *ad torturam*.⁵⁹ The position was shared by many in the 16th and in the early decades of the 17th century, when it began to be discredited in most areas. Generally, the jurists who expressed themselves in this sense did not wonder very much about the cause of the phenomenon, considering that its probative value was based on *experientia*.⁶⁰ France, where supernatural causes were commonly attributed to the phenomenon, was one of the countries which expressed greater faith in its heuristic value: for the canonist Pierre Grégoire cruentation is completely certain;⁶¹ Nicolas de Bohier, a judge in Bordeaux, tells of a case discussed in “in curia nostra,” i.e., in his court, in which the cadaver had even bled two months after death;⁶² Claude Le Brun de la Rochette considers bleeding a “très-violent” piece of evidence, i.e., with strong probative value.⁶³ In the

54 Ridell, *At the Murder's Touch*; Cohen, *The Crossroads of Justice*, 140; Gaskill, “Reporting Murder.”

55 Potts, *The Wonderfull*, Y3.

56 Brundage, *Medieval Canon Law*, 94–95; Porret, “La preuve du corps,” 47; Texier, “Corps en procès.”

57 Lea, *Superstition*, 429–590; Fiorelli, *La tortura giudiziaria*; Levy-Bruhl, *La preuve judiciaire*; Rosoni, “*Quae singula non prosunt*,” 226–228; Brundage, “Full and Partial Proof”; Schmoeckel, *Humanität*.

58 Villani-Lubelli, “*Ius feretri*,” 207–222.

59 Menochio, *De arbitrariis iudicium*, casus 270, n. 16, 275r; Farinacci, *Praxis*, quest. 36, n. 61, 562a.

60 del Pozzo, *De syndicatu tractatus*, Tortura, §. Mandavit rex, n. 29, 1030.

61 Grégoire, *Syntagma*, 3rd part, book 48, chap. 12, n. 18.

62 de Bohier, *Prima pars*.

63 Le Brun de la Rochette, *Le proces civil*, vol. 2, 156.

German context, Adrian Glymann also speaks of “*conjectura violenta*,” and he is followed by many others.⁶⁴ Nevertheless, it is appropriate to make a clarification: even among ‘the convinced’, individual positions varied widely. The Italian Marcantonio Bianchi, for example, as early as the first half of the 16th century, expressed a view that might be called ‘proto-psychological’. The ritual was indeed important not so much for the bleeding itself, but because it was also a kind of theater in which to observe the suspect: if he trembled, turned pale, blushed, etc., he gave indirect confirmation of his guilt beyond a reasonable doubt.⁶⁵

2. *Indicium ad inquirendum* or *ad procedendum*. This category includes many who, while giving some probative value to cruentation, considered it to be sufficient for carrying out an investigation, but, in general, avoiding the great *prejudicium* that torture entailed.⁶⁶ What makes this different from the previous position is sometimes only nuance, so that the same author not infrequently oscillated between the one and the other. Some jurists, before starting torture, required that there be other evidence or even simple rumors of enmity between the suspect and the victim.⁶⁷ But even this might not be enough, when the cause of the phenomenon remained so “intrinsic and occult” as to paralyze the judge, who could have been deceived by evil forces: who, for example, could have ruled out the possibility that the bleeding was the result of a wicked joke played by the devil?⁶⁸ There was also a problem linked to the foundation of this practice: the magistrate could only apply the laws; nonetheless, cruentation “is not written anywhere by the authors of civil and canon law”; for which reason the judge was called upon to exercise his main virtue, *prudentia*.⁶⁹
3. *Indicium falsum* or *fallax, periculosum et incertum*. This position began to assert itself in the second quarter of the 17th century, especially among those who tried to enrich the legal perspective through considerations which had been reached in the meantime within the fields of natural philosophy and forensic medicine. This is the case, for example, in the German area, of Johann Zanger, who, in fact, says it was impossible to

64 Glymann, *Symphoremata*, vol. 3, 311. Matthias Berlich, Paul Matthias Wehner, Johann Hering, Christoph Besold, Johann Benedikt Carpzov and numerous others express an analogous opinion.

65 Bianchi, *Tractatus*, artt. 397 and 408, n.p.

66 Gómez, *Variae resolutiones*, vol. 3, chap. 13, 211–212.

67 Novelli, *Practica*, § 73, 29; Mascardi, *Conclusiones*, vol. 2, conc. 867, n. 24, 175.

68 Tesauro, *Novae decisiones*, n. 1, 193r. Tesauro nevertheless does not exclude the possibility of subjecting the suspect to the first level of torture.

69 Casoni, *De indicis*, chap. 3, 10v–11r.

conduct a rigorous analysis independent of the “opinion of philosophers and physicians,”⁷⁰ or, in the French area, of Pierre Ayrault, who, drawing on the theological debate, judges the belief that the body would retain some awareness and ability to act as an “old lady [*anile*]” idea.⁷¹ An emblematic attitude – in the category of, so to speak, “skeptics” – is certainly that of Paolo Zacchia.⁷² Even with numerous doubts, in his opinion, “it seems we should say that this effect is neither real nor, therefore, can a cause be found in nature, because this cause does not exist.”⁷³ If there really was post-mortem blood loss, it depended – notes Zacchia, as a physician – on a previous medical condition of the bleeding subject, which had rendered the blood particularly fluid. Even if, as has been seen, cruentation was definitively abandoned in judicial practice much later, as early as the last quarter of the 17th century works finally began to appear on legal history (in some cases, even almost the history of science), more than on strictly legal theory, which addressed the issue with the detachment used to speak of a practice that is considered to belong to the past.⁷⁴

1.4 Cruentation in Philosophical-Natural and Medical Reflection

In 1572 in Cheshire, the coroner summoned the people of Nantwich, saying “that they might stand by, and be present about the corps, that all the people according to the opinion of Aristotle and the common experiment, might behold and see whether the body would expell excrements and fall to bleed afreshe in the sight of them all.”⁷⁵ Evidently the coroner had no idea of the fact that Aristotle had never spoken about cruentation and cited the philosopher as a simple authoritarian reference to science. The problem that the coroner did not understand, however, was precisely the difficulty of framing cruentation within Aristotelianism, as well as any other general interpretive horizon that hoped to be *scientia*, that is to “scire per causas.” Why did what happened

70 Zanger, *Tractatus duo*, chap. 2, art. 160, 541.

71 Ayrault, *Rerum*, book 8, tit. 4, chap. 18, 446.

72 On Zacchia, see *Paolo Zacchia*.

73 “Videtur, neque effectum hunc realem esse, neque consequenter posse causam eius, quod nequaquam est, in natura assignari.” Zacchia, *Quaestionum medico-legalium*, vol. 1, book 5, tit. 2, quest. 8, n. 17, 390.

74 Schottelius, *De singularibus*, 60–104; Müller, *De iure feretri*; Kirchmeier, *De cruentatione cadaverum*.

75 Cit. in Gaskill, “Reporting Murder,” 9.

happen? And, above all, why did this occur only certain times? Was it necessary to think that the cause of the phenomenon, divine or not, was intelligent?

1.4.1 *Medieval Explanations*

Christensen believes that until the 13th century, when testimonies began to multiply, cruentation was generally understood as a phenomenon which responded to a natural order of causation. Instead, the miraculous interpretation is thought to have gained ground following the discussions which arose at the end of the century thanks to the text of the Dominican theologian Thomas of Cantimpré *Bonum universale de apibus*, On the Universal Good of Bees, in which some controversial cases of cruentation were reported.⁷⁶ Nevertheless, the question is very complex, firstly because of the scarcity of sources, but also because of the difficulty that is encountered, for periods prior to the 13th century, when you attempt to mark a clearer demarcation between natural and miraculous: it is, in fact, likely that there were various levels of interpretation for the same phenomenon.⁷⁷ Moreover, as Boureau clearly demonstrated, the same attempts at explanation that emerged in the late 13th and early 14th century led to very different results (not infrequently tainted by a clearly political desire to validate one interpretation rather than another): for some the phenomenon was natural, for others supernatural, for still others, the one and the other at the same time.⁷⁸

1.4.2 *Early Modern Explanations*

Setting aside the medieval discussions on which there is already a fairly abundant literature, which causes were considered more credible in the early modern era? Although it is difficult to find the authors who do not express concerns and fluctuations, the causes can be schematically summarized as follows:

[A] *Supernatural Causes (or those at least with Strong Theological Implications)*

[A.1] *God.* A first hypothesis was that the phenomenon was caused by express divine intervention, which would, in fact, make cruentation a miracle with the function of ordeal: the advantage, from an epistemological point of view, was that the inscrutability of God's will clearly explained the inconstancy of the phenomenon, which, in this way, was no longer a problem. Not everyone was convinced, however. The Restoration physician, John Webster, says:

76 Thomas of Cantimpré, *Bonum universale*, book 2, chap. 29, 303–304; cf. Christensen, *Baareproven*, 66.

77 Clark, *Thinking with Demons*, 1–147; cf. Delumeau, *Le peur*, 119–151.

78 Boureau, “La preuve.” Cf. Vincensini, “Entre pensée savante et raison narrative.”

And of this opinion are most of the Pontifical Writers, that thereby they might the better maintain their Tenent, that miracles are not ceased; though we do not understand that if we should grant, that in these things there should be some concurrence of Divine Power more than ordinary, that therefore it must be a miracle, for it is yet not infallibly concluded what a miracle is, and every wonderful thing is not therefore concluded to be a miracle, and a miracle being not absolutely defined, what is not one cannot be certainly resolved.⁷⁹

Although Melanchthon had considered the bleeding of corpses as a divine sign [*signa ... divinitus addita*],⁸⁰ many Protestants – who, as is known, were very critical of Catholic miraculism – disassociated themselves from the path that he had traced, convinced instead that “immediate recourse to supernatural causes for natural and obscure things is to close, because of ignorance, the book of nature opened by God.”⁸¹ They thus assumed the supernatural interpretation as an *asylum ignorantiae* and, moreover, was considered theologically frightening: if indeed the emission of blood were a divine work, each time God would be unnecessarily “tempted.”⁸²

This concern was not perceived by the Catholics, who never excluded a miraculous origin.⁸³ Of course, they also had doubts, but in a less blunt and generalized manner and, above all, on the basis motivations that were more natural philosophical than theological in the strict sense. The aforementioned Zacchia, for example, declared himself to be puzzled: first of all, miracles were performed to support faith, while cruentation also occurred among infidels; it, in the second place, was not ‘proportionate’ to the severity of the murder (taking a life by the sword was thought to be less severe than doing so with poison, yet it was in the first case which, according to tradition, the phenomenon happened with more frequency); finally, there were much more serious sins than murder, which, however, were not punished in any way by an immediate divine intervention.⁸⁴

79 Webster, *The Displaying of Supposed Witchcraft*, 308.

80 Melanchthon, *Initia doctrinae physicae*, book 1, De Providentia, art. 3, col. 205.

81 “In rebus naturalibus iisque obscuris ad causas supernaturales immediate confungere est prae incertiam Naturae librum a Deo apertum claudere.” Hundeshagen, *De stillicidio sanguinis*, frontespice and paragraph 65; vs. Leyser, *Adamus*, 407.

82 Alberti, *De haemorrhagiis mortuorum*, 32–33.

83 Mersenne, *Quaestiones celeberrimae*, quest. 53, art. 3, col. 1443. Cf. Lenoble, *Mersenne*; Ashworth Jr., “Catholicism,” 136–166; Henry, “The Fragmentation,” 1–48.

84 Zacchia, *Quaestionum medico-legalium*, vol. 1, book 5, tit. 2, quest. 8, nn. 21–23, 390.

[A.2] *Soul*. The belief in the revenant is one of the most ancient and common to all cultures:⁸⁵ in this case, he who returns, because of a desire for revenge or at least for justice, is he who died badly or *biothanatos*.⁸⁶ The option can have a three-fold variation. What is responsible may, first of all, be the *indivisible divine soul* [A.2.1]: this is the position – in the minority among learned authors, but in the majority among the common people – embraced by those who, doxographers, philosophers and theologians more than physicians, were inspired by the aforementioned Platonic tradition of *Laws* (in truth, very vague on this issue) reinterpreted by Marsilio Ficino.⁸⁷ This theoretical choice led to thorny issues of the theological type: should one not, in fact, believe that the soul leaves the body instantly at death to reach supramundane places of punishment or bliss? In addition, the idea that the soul could remain temporarily near the corpse appeared to some Catholics to be only a gimmick used by the ‘infidels’ to recover a ‘waiting area’ similar to Purgatory, which the Protestants did not acknowledge. That of the ‘infidels’ was, therefore, a kind of ‘naturalized Purgatory’ – historically, it would nevertheless be more correct to say that the Catholic Purgatory was a ‘theologized waiting area’ –⁸⁸ which souls could enter and exit as they pleased, almost as if they were outside the jurisdiction of the divine.⁸⁹ Precisely for this reason, although criticism of the A.2 position came a bit from all sides, it seems to me that the Catholics were more compact and resolute in their objections: “This statement has no place among Christians,” condemns the Jesuit Kaspar Schott;⁹⁰ while for another Jesuit, Théophile Raynaud, “it is ridiculous that the soul remain in the body of a dead man.”⁹¹

The problems posed by the other two variants, which were more often embraced by those who sought to have a more technically medical or at least natural-philosophical discussion, were not very different. Given that the permanence of the soul tout court created so many problems, was it not possible to think that what lingered in the body were the minor souls, namely the *sensitive* [A.2.2] or *vegetative* [A.2.3] ones, or possibly both?⁹² These variants were also challenged, especially by Catholics, who, availing themselves of an

85 Frazer, *The Fear*.

86 Tertullian, *De anima*, 57, 1–5; cf. Waszink, *Biothanati*.

87 Ficino, *Theologia Platonica de immortalitate animorum*, book 16, chap. 5, 299. Cf. Bodin, *La Démonomanie*, book 2, chap. 3.

88 Hertz, “A Contribution,” 27–86; Le Goff, *The Birth of Purgatory*; Moreira, *Heaven’s Purge*.

89 Allatius, *De utriusque ecclesiae*, 41–42.

90 “Haec sententia apud Christianos locum non habet.” Schott, *Magia universalis*, vol. 4, book 5, synt. 2, digressio, 495.

91 “Animam enim in demortui corpore permanere, ridiculum est.” Raynaud, *De incorruptione*, 28.

92 Langius, *Epistolarum*, book 1, n. 40, 172–176; Lemnius, *Occulta naturae miracula*, 117–119.

Aristotelianism reinterpreted by Thomas Aquinas (*Summa Th.* 1, 118, 1, *ad* 4), objected that the minor souls were faculties of the immortal soul, not separate souls: they could not, therefore, exist independently. In other terms, the traditional tripartite division was to be understood as dynamic-functional, not ontological. As Emily Michael has shown, the doctrine of the plurality of substantial forms, on the other hand, was quite successful, especially in Lutheran universities, thus providing a theoretical basis for the idea that even after death there might remain something in the body that could function.⁹³

In short, according to some, Catholics, who needed to know when to administer the sacraments, seemed to protect the idea of the theological unity of the soul, whilst Protestants seemed to offer a looser, more ‘confederal’ definition of the vital principle (souls, spirits, *archaei*, ferments, *semina*, etc.), which was capable of extinguishing itself gradually over time rather than instantaneously.⁹⁴

[B] *Occult and Remote Causes*

Some authors attributed the phenomenon to the *devil* [B.1], often acting through the intermediary of a *witch* [B.1.1]. This interpretation, strongly supported by Paracelsus, was met with some success, especially among members of the iatrochemical school and, regarding religious confessions, among the Protestants, in particular Germanic ones.⁹⁵ The attention to this option should be directly related to the demonomania that spread, especially in the Lutheran context, when the narrative of the mythical imagery of Catholicism (lives of saints, tales of miracles, etc.) declined and there was an upsurge in witchcraft and in the perception that the devil could operate on the living and the dead.⁹⁶ In short, it was as if, when the supernatural was minimized, the field of the preternatural (the devil included) expanded to satisfy mankind’s need to believe in the non-natural.⁹⁷ That is why many people, especially in central and northern Europe, believed that occult forces were at work in the natural world, and dead bodies offered an obvious field for their activities.⁹⁸ All this does not mean, of course, that the ‘Latins’ and the Catholics did not refer to the action of the devil,⁹⁹ but that they generally considered the possibility remote and redundant, if nothing else.¹⁰⁰

93 Michael, *Daniel Sennert*.

94 Prosperi, *Dare l'anima*, 175–308.

95 Paracelsus, *Liber de sanguine*, 280–292; Hannaway, *The Chemists*, 1–21.

96 Midelfort, “The Devil and the German People”; Schürmann, *Nachzehrerglauben*.

97 Daston, “Preternatural Philosophy,” 15–41; Clark, *Thinking with Demons*, 294–311.

98 Schaffer, “Occultism and Reason,” 117–143.

99 Feyens, *De viribus imaginationis*, quest. 24, 374–375.

100 Delrio, *Disquisitiones magicae*, book 1, 55; Zacchia, *Quaestionum medico-legalium*, vol. 1, book 4, part 1, chap. 31, n. 7, 477.

[B.2] Another hypothesis strongly supported by Paracelsus was that a corpse retained a *vis imaginativa*, able to produce effects within its own body or in the bodies of others.¹⁰¹ Certainly, he was not the first to speak of an operative or effective imagination: many, for example, cited Avicenna (who, however, did not speak of post-mortem imagination).¹⁰² It was in any case the Paracelsian interpretation that received more support, even if sometimes with some doubts. As Francis Bacon comments:

It is an usuall Observation, that if the Body of one Murthered, be brought before the Murtherer, the Wounds will bleed a-fresh. Some doe affirm, that the Dead Body, upon the Presence of the Murtherer, hath opened the Eyes; And that there have beene Strangled, or Drowned, as where they have beene killed by Wounds. It may be, that this participateth of a Miracle, by Gods Iust Iudgement, who usually bringeth Murthers to Light: But if it be Naturall, it must be referred to Imagination.¹⁰³

This interpretation of the facts led to some problems: indeed, it was first of all necessary to show that the *phantasia* could produce effects in the body of others, in the case where it was the murderer's imagination that caused cruentation, or that it could remain in the body and act on it, if the cause was attributed to the imagination of the dead person.¹⁰⁴ It was, however, this last position, that of an "imaging blood," that was widespread among the supporters of the *occulta philosophia*. For Cornelius Gemma, for example, images or ideas etched and represented in the thickened blood would persist until the third day, and, in the presence of the murderer, would activate the residue of the spirit.¹⁰⁵ Jean-Baptista van Helmont, for whom blood contains the principle of life itself, summarizing this complex tradition, explains:

And hence is it, that at the approach of the assassine, the blood whose fountaine death had sealed up, begins a *tumultuation* and *ebullition* in the veines, and violently gusheth forth, being, as in a furious fit of anger, enraged and agitated by the *image* or *impreste* of revenge conceived against the murderer, at the instant of the soules immature, and compulsive exile from the body. For indeed the blood after death retaines a peculiar *sense* of the murderer being present, and enjoys a certaine, though obscure,

101 Paracelsus, *Liber de sanguine*, 280–292.

102 Avicenna, *Liber de anima*, 65–66.

103 Bacon, *Sylva Sylvarum*, century 10, exp. 958, 132.

104 Reyes Franco, *Elysium*, quaest. 33, 382–402.

105 Gemma, *De naturae*, lib. 1, chap. 6; Charleton, *Physiologia*, III, chap. 15, art. 3–4, 364 and ff.

kind of *revenge*: because it hath its peculiar *phantasie*: and for this reason, not *Abel* himselfe, but his innocent blood cries loud in the eares of divine justice for revenge.¹⁰⁶

[B.3] One rather widespread hypothesis was that a particular action took place between the murderer and the victim at a distance. What was its nature? Firstly, of *antipathy* [B.3.1]: it is an interpretation that became established in the 17th century and spread more or less everywhere, especially in the countries of Central Europe, where the tradition of the *miracula mortuorum*, i.e., the ‘extravagant’ behavior of cadavers, was particularly widespread.¹⁰⁷ Some authors identified an analogy, more or less loose, between the action at a distance responsible for cruentation and magnetism.¹⁰⁸ As it was, that option introduced a continuity between life and death on the material plane, which, although not as dangerous as the continuity guaranteed by the permanence of the soul, was subject to objections.¹⁰⁹ For a physician with great theological interests such as Gaspar de los Reyes Franco, if it were antipathy that led to an action at a distance, it would be necessary to prove that such a predisposition, if it were of the body, remained after death: would a man who did not like cheese or who was afraid of mice or who could not stand the smell of roses, by chance maintain the same antipathies as a cadaver? The only activity of a dead body was, more modestly, that of putrefaction.¹¹⁰ On the other hand, as noted by the monk and theologian Leonardo Vairo, according to Aristotle (*De part. an.* A 640b 30–37 641a 38–14) a cadaver was only for homonymy a man, as, without a soul, he had no principle of motion.¹¹¹

The action at a distance could also be caused by *sympathy* [B.3.2]. The point of reference for this position is the Dutchman Levinus Lemnius, who, in pages that were often cited in the 17th century, tells of the corpses of the drowned, which bled in the presence of loved ones. Lemnius’ opinion seems to be an attempt to re-interpret the phenomenon, which aims to maintain a ‘meaning’ of cruentation that otherwise could have been lost: seeing that it occurred even when the cadavers were not in the presence of people who

106 van Helmont, “The Magnetic Cure of Wounds,” 66. Cf. Halleux, “Le procès d’inquisition,” 1059–1086. The same position is in James I, *Daemonologie*, 229; Webster, *The Displaying of Supposed Witchcraft*, 305–310.

107 Kornmann, *De miraculis mortuorum*; Garmann, *De miraculis mortuorum*.

108 Kircher, *Magnes*, book 3, part 9, 788–789; Schott, *Magia universalis*, vol. 4, book 5, synt. 2, digressio, 494–498. Cf. Waddell, *Jesuit Science*.

109 Campanella, *De sensu*, book 4, chap. 9, 296–298. Cf. Nieremberg, *Curiosa y oculta filosofia*.

110 Reyes Franco, *Elysus*, quaest. 33, 382–402.

111 Vairo, *De Fascino*, book 2, chap. 10, 136.

might have had some responsibility for their death – which was sometimes entirely accidental – rather than attributing the phenomenon to chance, it was attributed to the presence of loved ones – relatives or friends – to whom the dead body bid, so to speak, its final farewell.¹¹² The bleeding, in other words, necessarily had to have an emotional significance, in this case, positive. If this new semiotics of cruentation had been established, it could have reversed the judgments of the courts, which, as we have seen, had hitherto considered it as evidence or an indication of guilt.

It is not always easy to distinguish between positions B.1 and B.2. They, among other things, were subject to the same theological criticisms. Admitting that a dead body retained a kind of intelligence that made it possible to recognize a living person and react to it suggested: 1) the existence of an action at a distance, which Aristotelian physics strongly denied, particularly in the interpretation given by the Jesuits; 2) the possibility that it was legitimate to interpret as preternatural the exceptional phenomena of the relics, which the Church of Rome judged to be miracles. It is not a coincidence that at one point authors such as the aforementioned Libavius jointly treated cruentation and weapon salve: in either case there were parts of a corpse that seem to operate, even at a distance, in a more active manner than their nature, strictly speaking, would lead one to believe possible.¹¹³ It is also not without significance that the debate on cruentation intertwined, between the 17th and 18th centuries, with that of the miracle of the liquefaction of the blood of Saint Januarius. According to the ritual of the time in Naples, the latter “bubbled” in the presence of the martyr’s head. But for the critics, especially Lutherans, the skull attributed to Januarius could have been that of the judge who had sent him to death: what occurred was, therefore, not a miracle, but a purely preternatural cruentation.¹¹⁴ This would be enough to show how severe Catholics were in judging every possibility of post mortem imagination and sympathetic or anti-patetic action of the blood of a dead person.¹¹⁵

[C] *Natural Causes (or with more Obvious Physiological Connotations)*

[C.1] A good number of physicians, working within a broadly Aristotelian-Galenic context, attributed the phenomenon to the action of the residual *heat in the body*. Obviously, heat could only act within a relatively short time after

112 Lemnius, *Occulta naturae miracula*, 117–119.

113 Poma, *Magie et guérison*, 68–88.

114 de Ceglia, “Thinking with the Saint,” 133–173.

115 Webster, “Paracelsus,” 403–421; Kahn, “Cinquante-neuf thèses,” 161–178; Ziller Camenietzki, “Jesuits and Alchemy,” 83–101.

death, after which, if there had been cruentation, it could not in any way have been of natural origin. For the physician François Valleriola, for example, before the heat was completely extinguished, the desire for revenge heated the bile, which inflamed the blood, which burst out from the wound (in this case the emphasis is on the ‘causal mechanism’ of the heat, rather than on the imagination in itself).¹¹⁶

Sometimes the ‘thermal’ etiology [C.1] was associated with the attribution of a propulsive value, more or less decisive, to the *spirits* [C.2]. In this case, there were two possibilities: first of all, it might be the *spirits of the dead* at work [C.2.1]. For Ficino, who this time commented on Plato’s *Symposium*, when a man was struck, the spirits, who were very light, pushed toward the wound and some escaped, flying onto the killer, where they remained for a while. When the offender passed close to the victim, the spirits in the former attracted the blood of the latter.¹¹⁷ In its variants the position included the possibility of mutual recognition between the spirits of the dead, some of which were still in the corpse and others which had flown onto the killer. This, as is clear, was not accepted by everyone or, if nothing else, was considered prodigious by some.¹¹⁸

The second option is that it was the *spirits of the murderer* that acted [C.2.2], and which were transmitted to the victim at the time of the killing, through the weapon or simply through the air, possibly infecting the wounds inflicted. At the reappearance of the offender, his spirits, hosted in the wounds of the victim, felt the presence of what was similar to them: some believed they simply fomented, others believed they moved toward the murderer, carrying with them the blood of the dead. It was a widespread interpretation – although, as usual, with variations and perplexities – including those that could be called ‘rationalists’, who thought it was more sensible to attribute a residual vitality to the spirits, although separated from the others, of a person still alive (the guilty party), rather than to those of the dead (the victim).¹¹⁹ A variation of this position is that of those who, like Peter of Abano, inspired by the Aristotle of *Problemata*, argued that the transfusion of spirits from murderer to the murdered took place *through the eyes* of the first [C.2.2.1].¹²⁰ It is interesting to note how this interpretation was associated, in the authors of later centuries,

116 Valleriola, *Observationes*, book 2, obs. 7, 101.

117 Ficino, *Commentarium*, orat. v11, chap. 5, 411–412.

118 Reyes Franco, *Elysium*, quaest. 33, 390; Kircher, *Magnes*, book 3, part 9, 788–789.

119 Descartes, *Principes*, part 4, cap. 187, 457. The question is not mentioned in the original Latin *Principia philosophiae* (1644).

120 Aristotle, *Problemata*, fol. 81b.

with discussions of the evil eye: could someone have a (negative) influence on someone else through his eyes?¹²¹

The last possibility is that the phenomenon was caused by the *exchange of spirits* between murderer and victim, that would take place precisely at the moment of the crime [C.2.3]. As explained by the Italian humanist Galeotto Marzio, when the next meeting took place between the two parties, the spirits of each reached their companions and their rightful place. Hence, the emission of blood; which, however, did not always occur, because of the inherent weakness of the spirits.¹²²

All these positions were criticized despite their attempt to keep the conversation within the boundaries of the physiological knowledge shared at the time. First of all, many believed that the spirits almost instantly lost all power with the death of the individual. But it was, above all, the ‘crypto-intelligence’ attributed to them that aroused suspicion. For example, the polymath Girolamo Maggi asked various questions: why does cruentation not occur in animals? Why does it not happen to a person who is injured, but not killed in battle? In this situation, there should be, in any case, an exchange of spirits, which, indeed, belonging to two living men, should have that much more energy and propulsive attitude. Why does it also happen to those who, for example, are killed in their sleep and are unable to develop a desire for revenge against the killer? Why does it also take place when someone has been killed from a long distance (for example with a bullet)? In this case, the exchange of spirits would have to be excluded.¹²³ Zacchia added: why do animals not bleed in front of the butcher and the executed in front of the executioner? Why, on the contrary, do children bleed in the presence of mothers and the drowned in front of friends and relatives? Where lies the *vis cognitrix* that governs recognition? Why, above all, does enmity have no effect on two living enemies? Additionally, if aversion makes the blood move, should it not warm up the body? And yet, it normally cools.¹²⁴

121 Santorelli, *Postpraxis medica*, chap. 21, 60. Jacob Sprenger and Heinrich Institor Kramer, also offers a “spiritual” interpretation, but that gives a major role to the imagination, in *Malleus maleficarum*, part 1, quest. 2, 25. Vs. Gutierrez, *De fascino*, doub. 7, chapters 22–24, 160–163.

122 Marzio, *De doctrina promiscua*, chap. 22, 232–233.

123 Gruter, *Lampas*, vol. 2, 1370 ff.

124 Zacchia, *Quaestionum medico-legalium*, vol. 1, book 5, tit. 2, quest. 8, nn. 17–21, 389–90.

1.5 Conclusion: the Charm of Necromancy

In short, each new explanation triggered objections and criticisms. The multiplication of hypotheses is, moreover, proof of how the phenomenon itself was not in doubt, but its etiology: “There is, therefore, no doubt about the fact, while as to the cause, there is a great dispute among the authors,” contemplates Schott in the mid-17th century.¹²⁵ The desire for cruentation to be a sign – namely the expression of a specific message sent to identify the culprit, or if it could not be interpreted in this way, as a second choice, a parting gesture for loved ones – imposed a relationship of cause and effect with the appearance on the scene of the suspect or possibly of a loved one. The symbolic value of blood was too strong not to have a meaning. In other words, people wanted the dead to speak to the living, delivering a judicial message. They wanted cruentation, even after its (preter)naturalization, to retain its original divining character and to confer to the judge or the jury what Barbara J. Shapiro called the traditional “special, near divine, spark”: an external truth, arcane and unquestionable.¹²⁶

The hypothesis that a cadaver could bleed regardless of the presence of enemies or friends – possibly for diseases that have made the blood very watery or because of particular climatic conditions – began to be seen in the literature in the early 17th century, taking about a hundred years to become established.¹²⁷ From this point of view, the period between the 17th and 18th centuries should be interpreted as the period of the questioning of ancient certainties on the cadaver and postmortem phenomena. The critical reconsideration of cruentation did not happen, however, as a result of observations able to debunk the belief, such as a case of bleeding near people who were obviously unrelated to the events or, on the contrary, a failure to bleed in the presence of persons who were clearly guilty. The phenomenon was, in fact, so variable and anormative that – to use Popper’s terminology – it was possible to verify it, but not to falsify it. Therefore, the attention of 17th century critics focused, more than anything else, on the inability to include in *scientia* something that did not seem to have any proportionality and, even more so, normativity.¹²⁸ Once labeled by science – philosophical-natural, medical, legal and theological – as an

125 “De facto itaque rei dubium nullum est, de causa vero lis ingens est inter autores.” Schott, *Magia universalis*, vol. 4, book 5, synt. 2, digressio, 495.

126 Shapiro, *Beyond Reasonable Doubt*, 241.

127 Horst, *De naturali conservatione*.

128 Liceti, *De secundo-quaesitis*, 209–210; Zacchia, *Quaestionum medico-legalium*, vol. 1, book 5, tit. 2, quest. 8, nn. 16–17, 389; Mersenne, *Quaestiones celeberrimae*, quest. 53, art. 3, col. 1443.

exceptional fact for which it was not possible to identify any rule, it was increasingly neglected and considered as something that now belonged to the past. Just like that, without proof. Just as there had not been any proof when people had been sent to death following the emission of blood from a corpse.

But there is more, because the belief in cruentation can be used as a litmus test that can detect the way in which early modern Europe understood the borders between life and death. The attribution of peculiar activity to cadavers was, in fact, generally associated with the belief that there was a kind of physiological continuity between life and death that allowed more or less occult qualities residing in the body to stay there and operate post mortem. This belief, though very ancient and deep-rooted more or less all over the world, was present, in the opinion of some historians, non-uniformly in the European territory. Katharine Park argued that as early as the late Middle Ages, “while Italians envisage physical death as a quick and radical separation of body and soul, Northern Europeans saw it as an extended and gradual process, corresponding to the slow decomposition of the corpse and reduction to the skeleton and hard tissues, which was thought to last about a year.”¹²⁹ Yet, despite the efforts of the Church to spread a more spiritualist prospect of death, conceptualized as an *exitus*, i.e., an instantaneous demise of the soul, especially “in the local traditions of northern Europe,” as confirmed by Nancy Caciola, “life force was thought to be literally embodied, held within the flesh and the bone.”¹³⁰ Moreover, in contrast to what would be read in official texts, an anthropological reading of the medieval sources there would appear to be a fracture between two orientations regarding the residual vitality of mortal remains: this was, all in all, (pre)natural in central and northern Europe; more difficult to accept, so basically miraculous, in the Mediterranean Latin culture. All of this, clearly, is true to the limited extent that it was possible to establish time boundaries between the orders of causation.¹³¹

If indeed in the late Middle Ages it was already possible to find differences, it was only in modern times that a clearer polarization took shape. With the Council of Trent, the peremptory reaffirmation of Purgatory in fact offered the Catholic Church the opportunity to confirm, and crystallize, the intermediate space between heaven and hell. Not only that, though. Purgatory, built on earlier conceptualizations of waiting places or situations, stood as a depressurization cabin between life and death as well, if you understand the latter to be the definitive acceptance of the soul among the ranks of the blessed, i.e., as the

129 Park, “The Life of the Corpse,” 115.

130 Caciola, “Wraiths,” 36. Cf. Caciola, *Afterlives*, 109–253.

131 Lecouteux, *Fantômes*; Simpson, “Repentant Soul,” 389–402.

time at which society could be relieved from the threat of a possible return of the deceased. The dead were no longer free to roam the earth waiting to ascend to heaven, or, as was hypothesized by most, for the end of time, because they were now confined to a specific location, by many understood as a physical place. Communication with them was well-established on a purely supernatural plane through the exclusive mediation of the Holy Roman Church.

Corpses were physically and spiritually delivered to the Catholic Church so that they could rest in a place under its material and symbolic jurisdiction.¹³² This made it possible to tame the return of a dead man, who now, being able to go see the living only with an express divine decree, appeared before them more than anything else to ask for a requiem or induce them to repentance. Not just to frighten or even kill them. And it is because of this that the souls which, querulous and pleading, peered at night into the living world, telling of the flames that devoured them to make them worthy of heaven, caused, among Catholics, more compassion than fear.¹³³ This, in principle, proves a reasonable explanation, despite some counterexamples.¹³⁴

The Reformed churches, by contrast, denied the existence of Purgatory and, with it, the very idea that there could be some form of 'institutional' communication between the living and the dead.¹³⁵ "The separation of the dead from the living meant a new understanding of the death itself," judges Craigh M. Koslofsky. Death thus became a barrier.¹³⁶ The dead were to be left to themselves, both physically and spiritually. "Protestants' rejection of the capacity of the living to influence the fate of the soul ironically led to an even greater concentration on the dead body" add Sarah Tarlow and Emma Battell Lowman.¹³⁷ The corpse became a scenic presence, sometimes even a very disturbing one, and was the subject of an unprecedented scientific curiosity to which the volumes on the *miracula mortuorum* are a monumental testimony.

Withdrawn from the jurisdiction of the Church, the corpses seemed so much more disturbing, because between them and the living there no longer stood any institution able to select and tame those who wished to return. So, in those cemeteries, sometimes already outside city limits, the bodies, engaged in incessant post-mortem activities, threatened to open up their pathogenic potential, releasing residual forces imprisoned in them. But also to provide

132 Hertz, "Contribution," 1–83.

133 Scaramella, *Le Madonne del Purgatorio*, 247–313.

134 Zarri, "Purgatorio particolare."

135 Laqueur, *The Work of the Dead*, 58–69.

136 Koslofsky, *The Reformation of the Dead*, 3.

137 Tarlow and Battell, *Harnessing the Power*, 67.

material on which the devil could operate.¹³⁸ It is as if, having emancipated the deceased from the tutelage of the Church, the Protestants (re)discovered the preternatural vivacity of corpses which they could now explain by invoking the plurality of substantial forms. The dead came back among the living in and through bodies that they somehow continued to inhabit. This in part because the Protestant theologies were not all in agreement on the outcome of the soul at death: for some of them it might sleep, perhaps in the vicinity of the body, waiting for the Last Judgment.¹³⁹ Therefore, it was there. But, to be honest, even without a soul the body was thought to have been able to act.

Revenants, shroud-chewing corpses and vampires thus populated the nightmares of men in Central and Northern Europe, where the cadaveric medicine – the therapy based on drugs, like the mummy, obtained from parts of dead bodies – was also very widespread.¹⁴⁰ This happened by virtue of a continuity between life and death, which rehabilitated from an occultist point of view, i.e., preternatural or natural in a broad sense, a communication with the afterlife that could no longer take place in a spiritual-religious dimension.

It followed that in Protestant Europe – which roughly corresponded to the area where the continuity between life and death was already commonly admitted – the individual believer was called upon to manage the hidden forces of death. Engaging, without the support of a church behind him, in real divination activities before the corpse. And it is in this context, where the custom of cruentation was already ancient, that it became a socially acceptable form of necromancy. Acceptable because extraordinarily useful and, moreover, inscribed in a powerful natural order, which had no qualms about resorting to acting at a distance or invoking the residual vitality of corpses to explain the most exceptional phenomena. With the cessation of miracles, it was as if the natural expanded to account for phenomena which, despite everything, people still believed in.¹⁴¹ Not so for the Catholics, who, having entrusted to the Church the management of communication with the dead and generally a good portion of the phenomena that seemed to violate the laws of nature, tended to dry and circumscribe the natural order. It was thought that a corpse could, indeed, continue to manifest some small phenomenon, but, once its heat was dissipated, its best bet would be simply to decompose. So it was that on a previous geo-ethnographic fracture (Latin Mediterranean vs.

138 Browne, *Religio medici*, 87.

139 Ball, *The Soul Sleepers*.

140 Barber, *Vampires*; de Ceglia, “The Archbishop’s Vampires”; Sugg, *Corpse Medicine*. For Eastern Europe cf. Bohn, *Der Vampir*.

141 Roling, *Drachen und Sirenen*.

Central and Northern European Germanic peoples) a confessional differentiation (Catholics vs. Protestants) was grafted, and emphasized the polarity between those who looked at passing away as an instantaneous event, and those who understood it as a process that did not interrupt the dead body's ability to communicate. And it was in this context that it was believed that "in every wound there is a bloody tongue."¹⁴²

142 Dawson, "In Every Wound There is a Bloody Tongue."

Unfamiliar Faces: the Identification of Corpses in Late Medieval Valencia

Carmel Ferragud

2.1 Introduction

The appearance of corpses as a consequence of accidents or physical violence in 15th-century Valencia, and other European cities, can be researched quite easily.¹ Normally, recognition by close relatives was enough for identification purposes. Occasionally, however, identification was complicated, and a different approach was necessary if nobody was able to recognize the dead person. For one thing, the population of Valencia ran into the thousands; it was almost certainly the largest city in the Iberian Peninsula in the middle of the 15th century.² Furthermore, many principal trading companies from the Mediterranean had set up a base there, and it had a sizeable travelling population of businessmen and merchants, as well as all kinds of professional specialists – medical practitioners, master builders, painters, clockmakers, and many more – and craftsmen seeking their fortune in such a wealthy, dynamic city.³ There were, moreover, a large number of apprentices in all sorts of traders, mercenaries, vagrants, musicians, peddlers, pilgrims and slaves passing through Valencia, who were on the move for the most diverse reasons. The streets were full of familiar and unfamiliar faces.

1 The present article forms part of a program that has received financial backing from the Spanish Ministry of Science and Innovation “Narpan II: Vernacular Science in the Medieval and Early Modern Mediterranean West” (MICINN PGC2018-095417-B-C64, 2019–2021). I would like to thank José Ramón Bertomeu, María Milagros Cárcel Ortí, Ferran Garcia-Oliver and Luis Pablo Martínez for their comments and contributions. The article was translated from the original Spanish by Andrew Stacey.

2 Some authors, such as Iradiel or Cruselles, have estimated the population of Valencia to have been around 75,000–100,000 at the end of the 15th century; other, more cautious estimates, such as that of Rubio Vela, propose about 40,000. Iradiel, “L’evolució econòmica”; Cruselles, “La població”; and Rubio Vela, “La población de Valencia.” Cabanes Pecourt, *Avecindados*.

3 On foreign merchants, see Cruselles, *Los mercaderes*. For examples of medical practitioners, see Ferragud, *Medicina i promoció*, 166–171.

Any of these visiting ‘foreigners’ could fall ill or die due to some misfortune, far from home.⁴ Sometimes virtually nothing could be ascertained about their place of origin and occupation. Obviously, in the Middle Ages, none of the modern systems of identification such as fingerprints, identity cards with photographs, or passports, existed. Nevertheless, there were ways of identifying an individual, procedures that during the 14th and 15th centuries began to improve considerably.⁵

Things could get even more complicated when an individual was suspected to have been the victim of a homicide. Then the expertise of medical practitioners was required to determine the cause of death in order to be able to proceed with the relevant investigation. The prompt determination of the cause of death was fundamental for justice to be meted out, but also for giving the corpse a proper burial, and thus fulfilling an essential Christian obligation.

In recent years the identification of people become an established area of research in the social sciences.⁶ Nevertheless, with a few exceptions, this work has focused on the identification of living persons and not corpses, and particularly on different methods of personal identification applied to corpses found in the city of Valencia – the bodies of persons of any age, religion and circumstance, in the middle years of the 15th century.⁷ Most of them, in one way or another, involve the presence of medical practitioners – physicians, surgeons and midwives – who gave their expert opinion.

These medical actions must be understood within a general European context.⁸ The spread of urbanization and complexity of the medieval West placed the judges in complex situations that they felt they could not deal with

4 Ferragud, “Enfermar lejos de casa.”

5 Groebner, *Who Are You?*

6 About, Brown and Lonergan, “Introduction.” About and Denis, *Historia*.

7 Interest in this subject seems to have emerged recently. See, for example, the conference *Death and Identity in Scotland From the Medieval to the Modern* (University of Edinburgh, 29–31 January 2016) <https://sshmedicine.wordpress.com/2015/09/15/cfp-death-and-identity-in-scotland-from-the-medieval-to-the-modern/>.

8 On the case of Italy, see Ortalli, “La perizia.” Dall’Osso, *L’organizzazione medico-legale*, 69–71; on England, Butler, *Forensic Medicine*. On the south of France, see Shatzmiller, *Médecine et justice*. On the Crown of Aragon, see McVaugh, *Medicine before the Plague*, 207–209. Different factors contributed to this process. The advance of doctrinal medical knowledge and the emergence and professional renown of Galenist doctors have been discussed most frequently. French, *Medicine before Science*, 122–126. The development and convergence of civil and canon law at the end of the 13th century gave men with medical knowledge a place in courts of law, where they could act as experts. These traditions, inherited from Roman law, incorporated the idea that judges could investigate crimes and determine their verdict by compiling and analyzing evidence, which later became part of a written dossier as the legal proceedings and their conclusions developed. Ruggiero, “The Cooperation.”

satisfactorily. The presence of the expert physician, surgeon or apothecary is specifically connected to the lack of the instruments and criteria that were necessary to solve many cases, and the consequent demand for external advice. Moreover, the development of surgery with a scientific rationale deserves special consideration, as surgeons became the experts that were the most called upon thanks to their experience in treating wounds and external diseases.⁹ Altogether, from the beginning of the 14th century onwards, the involvement of an expert in the courts of Valencia was very common.¹⁰

Different aspects of identification emerge in examples from Valencian archives, which will be discussed in detail below. In the first case, the written register – which became increasingly common at that time – made it possible to discover the identity of the incorrupt body of a young woman who had died in a plague epidemic. We will also see how the bodies of those who had drowned, the victims of infanticide, and the bodies of the members of other religions (Muslims or Jews) were identified by facial recognition – the most common method – and from their clothes. And for several other cases, we will analyze the role religion played in the court, and in the process of identifying corpses.

2.2 The Surprising Discovery of an Incorrupt Body

On 19 April 1447, in a plague pit full of the bodies of those who had died in the terrible epidemic of 1439, a Valencian gravedigger happened upon the incorrupt body of an adolescent girl.¹¹ In his *Dietari*, Melcior Miralles describes it as the “huytena mortaldat” (eighth epidemic) since 1348, and says that it struck with unusual virulence. Although the chronicle sources vary, a figure of 11,000 dead in five months is recorded.¹² The situation was quite chaotic, as the population fled the city *en masse*, beginning with the ruling elites, and the economic consequences were significant. July was a particularly deadly month.

All the documented information we have about this case is preserved in a letter that the governor of the kingdom sent to the vicereine Queen Maria – the wife of King Alfonso V the Magnanimous – who was living in the city at the

9 García Ballester, “The Construction.” McVaugh, *The Rational Surgery*.

10 Ferragud, “Expert Examinations.”

11 Ferragud, “Religiousness and Medicine.” In this study, in which anthropological, religious and forensic aspects are examined, the identification of the corpse was not given special consideration. On the handling of corpses during plague epidemics, see Bau and Canavese, “Sepultureros y enterradores.”

12 Rubio Vela, “Las epidemias,” 1200–1202.

time. In the missive the governor wrote that the body was that of one Angelina Bertran, a young girl who had died in the 1439 epidemic. He provided a thorough description of the body, and a committee of physicians was summoned to declare whether its state of preservation was natural or supernatural, and therefore miraculous. Popular piety generally tended to consider the external marks on bodies as infallible signs of saintliness. Faced with inexplicable situations such as this one, in which it was difficult to establish the facts and to obtain definite answers, the people of Valencia regularly called upon experts in medical science. Setting up a medical committee was the most reasonable thing to do before considering the possibility of a miracle.¹³

However, of particular interest here is how one went about identifying a body buried in a common grave. The governor claimed that the person who had provided the information was the *vicari general i oficial* (vicar general and official), the bishop's delegates. The bishops usually appointed these officials for the diocesan curia. They were the delegates exercising the bishop's jurisdiction.¹⁴ Unfortunately, there is no information in the Diocesan Archive of Valencia for the year in which the body of Angelina was found, so it is impossible to identify the vicar general. In any case, it was this official who supplied the essential information for the identification of the corpse:

The unmarried girl, after the death of her father, died of the plague, at the age of 15 or 16, on 14 July in the year 1439, one of the last to die, her sickness lasting almost 24 hours, and she was buried in the mentioned grave.¹⁵

13 Ziegler's studies of canonization processes in the 13th and 14th centuries show that the presence of doctors was fairly common, and that the civil and ecclesiastic authorities waited for the information supplied by these professionals before formally acknowledging a new saint. Ziegler, "Practitioners," 192–194. Along the same lines, Donato, "Medicina e religione," 13–23.

14 Both were the principal agents in the diocese, assistants, as it were, in the Episcopal administration. They were aided by public notaries of the city and scribes, who had the job of drafting the documents issued by the curia and copying them into the registers, writing the minutes of the proceedings, registering the sentences and making a copy of any documents of the trials that the parties in lawsuits requested. Both the official and the vicar general had a good grounding in canon law. Occasionally, the post was held by one single person and was called the *Vicarius Generalis et Officialis*, as in the case here. Cárcel Ortí, "Documentación judicial," 140.

15 "La qual fadrina, après mort del pare, morí de glànola, essent de edat de XV a XVI anys, en l'any mil CCCXXXVIII a XIII de juliol, en les morts proppassades, durant-li quasi XXIII hores lo mal, e fonch soterrada en la dita fossa." Archive of the Kingdom of Valencia (ARV), Governació (Lletres), reg. 2807, quire 2, f. 24r–v (21 April 1447).

The precise nature of the information (age, date of death, duration of the sickness and place of burial) and the orderly way in which it is presented leave us without doubt: it was taken from a written register. But which register was it, and who had ordered it?

For previous outbreaks of the plague, the municipal authorities had chosen to keep an exhaustive register of the rising number of deaths in the parishes.¹⁶ We have this on record in 1422, when Jaume Gai was dispatched for one year, from March 1421 to March 1422, to gather information from the city's twelve parishes.¹⁷ There is, however, no reference to any commission gathering this information in 1439, although, if the practice of the previous epidemic was followed, we must presume that a commission did exist.¹⁸ Why would they not thoroughly monitor the situation in their parishes? One would expect a precise register to have been kept, although there is no trace of one.

Everything suggests that the vicar general had a copy of the written information gathered by the municipal council in the parishes. This was to be expected, since all matters relating to the burial of bodies and the control of cemeteries were the Church's concern.¹⁹ Therefore, it was the vicar who supplied the information which identified the body of Angelina. What should be stressed, though, is the role the incipient use of writing played here, with its new ways of expressing identity. This had been introduced in the middle of the 13th century by the kings of the Crown of Aragon through the chancellor. Whether consciously or unconsciously, the royal house of the Crown of Aragon promptly acknowledged and observed the necessity to conserve the written memory, which revealed the change in the way of thinking that transformed medieval Europe, a change closely linked to writing.²⁰ By the early 14th century

16 Strict and sophisticated institutions and rules for managing plague epidemics were habitual in European cities during the late Middle Ages. The pioneering case was that of Dubrovnik. Blažina and Blažina, *Expelling the Plague*, 105–137. For the duchy of Milan, see Nicoud, *Le prince*, 388–470.

17 Municipal Archives of Valencia (AMV), Manuals de Consells, A-27, f. 354 (20 January 1422).

18 Moreover, the municipal authorities were well informed indeed of what was happening throughout the kingdom, even for regions as far away as the most important town in the north, Morella. In fact, the city's *jurats* (councillors) sent two notaries from the municipal scribe's office to visit for seven days some of the villages around Valencia, to see for themselves the advance and impact of the epidemic.

19 Doctors did not seem to be worried about the unhealthy situation of the cemeteries even in the early modern period. Carnevale, *L'affare dei morti*, 334. It is surprising that a holy place was so poorly looked after, and that it was possible for to disinter corpses. On the cleaning up of Valencia Cathedral cemetery, see Valencia Cathedral Archive, Fàbrica de la Catedral, 1477 (26 April 1425).

20 Clanchy, *From Memory*, 253–317. Gimeno Blay, "Si necessitat." Rubio Vela, *L'escrivania*.

the spread and consolidation of writing had become an alternative means of organizing society in the kingdom of Valencia.²¹ In 15th-century Valencia writing was used in a larger variety of ways and more frequently than has generally been assumed for the Middle Ages, and at all levels of society. The Church in general and the municipal institutions, such as the *Consell Municipal* and the *jurats*, or the law courts, kept a written record of all the actions associated with their governance.

All in all, the beginning of the cult of a young girl found incorrupt, who was promptly associated with virtues and therefore immediately venerated by the people of Valencia, was made possible by the fact that highly detailed written registers – in this case of plague victims – recorded the names of living and dead residents and inhabitants of the city. It was also made possible due to the expert opinions of doctors, who confirmed just how inexplicable the preservation of the body was from the point of view of Galenic medicine. In reality, the only unequivocal sign of death was the onset of the body's putrefaction, and this was somehow prevented in an incorrupt body.²² In spite of all this, the story ends with the memory of Angelina, who was never canonized, gradually fading into oblivion.

2.3 The Identification of People from Other Religions

On 12 October 1442 the body of an old man was found near the cemetery of the monastery of Saint Vincent, on the road outside the walls, towards the north of the city.²³ This was an emblematic place in the city's history due to its symbolism, as well as quite a busy road. Soon the word spread that the body was that of a Moor, since "it was cut [shaped] like a Moor and wore a Moor's habit" ("ésser tallat com a moro e en hàbit de moro").²⁴

The body was examined to see if it had any bruises or wounds (*nafrès e ferides*), but none were detected. Then many people who had been present when

21 Valentin Groebner has shown that from the 14th century onwards, with the beginnings of the modern state, administrative bureaucracy expanded and the authorities gained gradual control over individuals, natives, passing foreigners and residents. Registers for the control and identification of people increased greatly at that time (lists of all kinds of people, including soldiers, vagrants, criminals, foreigners). While Groebner limits his research to cities in Italy and Central Europe to explain the phenomenon, the situation equally applies to the Crown of Aragon. Groebner, "Describing the Person," 15–27. Groebner, *Who Are You?*, 173–176.

22 Duranti, "La morte," 178.

23 ARV, Batlia, 1121, f. 49r (12 October 1442).

24 *Tallat* means "the cut of the clothes." *Vocabulari* (consulted on 26 August 2015).

the body was discovered were questioned as to whether they knew what the cause of death was. They said that the previous night this man – and notably he remains anonymous, as his name was never mentioned – had lain down on a small heap of manure or rubbish (*femeret*) near the cemetery of the monastery of Saint Vincent and that he had died just there of natural causes. As this happened in the first half of October, which is a very temperate, although wet, month in the Mediterranean, death could not have been caused by cold. There was no mention of any doctors being involved in the examination, which was not mandatory, even when the deceased was a Christian. Perhaps the *batlle general* (general bailiff), i.e. the authority representing the king in matters relating to Muslims, saw no problem with and asked no further questions in this case, since no signs of violence were observed, although it seems possible that – as the deceased was an old Muslim – he saw no need to involve the city's doctors in a matter that he deemed unworthy of their attention. Consequently, the *batlle general* granted the authorities (*adelantats*) of the Moorish quarter of Valencia permission to proceed with the burial.

It must be borne in mind that it was extremely difficult to physically distinguish a Muslim or a Jew from a Christian in medieval Valencia. In fact, the documents show that it was virtually impossible.²⁵ Therefore, during the 14th century the authorities decided to gradually introduce a series of badges to make it possible to tell Muslims and Jews apart. The Muslims were to wear distinguishing marks on their clothes – a yellow ribbon on the right arm – and had a special haircut (*garseta*). Some historians state that these strict rules, which were greatly contested by the Muslim community, were barely enforced. Not even the monarchs were sure if they ought to insist on them, and their attitudes were ambiguous, as they often permitted the most powerful members of these religions not to wear such badges.²⁶ There is no record of the haircut of the above-mentioned corpse that found on that road. In fact, the only distinctive element mentioned in this case was the clothing, which was almost certainly an *aljuba* or tunic, a garment typically worn by Muslims.

25 Bramon, *Contra moros*, 131–135. In the last quarter of the 14th century various prohibitions were issued for Christians not to dress in the “Moorish style,” i.e. not to wear a tunic (*aljuba*) or a blue turban on their heads (“tovallola blava al cap”). Barceló, “La morería,” 59.

26 Ferrer i Mallol, *Els sarraïns*, 43–60. In 1396 the pressure against the Jews in Valencia also led the authorities to request a royal privilege concerning the obligation to wear a marking sign, in the form of a round, bicolour piece of cloth, the same as the one worn in Barcelona. The lack of compliance with it was stressed in 1400. In 1403 the privilege requested by the authorities in Valencia became a law that enforced the need to wear the sign. Hinojosa Montalvo, *La judería*, 267–271.

Beginning with this case and those we shall see below, we may claim (as Peter von Moos has done) that during the Middle Ages clothes were the most fundamental aspect of personal identity and social attention: they, and not the color of the skin, were the frontier of the self.²⁷ Clothes identified a person's situation so much that changing them was at times sufficient for somebody to transform him or herself and adopt the image of the opposite sex or a different class.²⁸ Each social group was identified by a certain type of clothing, and particularly with regard to the individuals' roles or occupations, and the differences of gender and status.²⁹ Each line of work, characterized by its high or low rank and importance, was marked by the use of a certain type of clothing. An ambassador coming to or leaving the city was identified by his clothes and the chain of office with the representative seal. In the city of Valencia, the individual with the job of picking up and removing dead animals and detritus from the streets was known by the nickname of *malaropa* (bad clothes), in allusion to his dress, and the hangman was also recognized by his clothes.³⁰ The different stages of life, and life circumstances such as widowhood, were also reflected in a particular form of dress. In short, there was a dress code that had been fully internalized by the city's inhabitants, and this made it possible to obtain a great deal of information about people.

This case also clearly shows the importance of facial identification, especially by people of the same religion, once the group to which the deceased belonged had been identified by the characteristic type of dress. By the middle of the century the Muslim community in the city of Valencia was small and stable enough for all its members to know one another. And it would be even smaller after the attack of 1455, and the Muslims' subsequent degradation.³¹ Identification was, therefore, simple, except when the deceased was not a member of the local Moorish community.

Occasionally identifying a person's religion must have been more difficult, due to very similarities between members of different religions in both physique and dress. On 14 December 1491 a man was found dead by a watchman

27 Von Moos, "Le vêtement," 50.

28 Green, "Bodily Essences," 162.

29 On Valencian dress in the period, see Astor Landete, *Indumentaria e Imagen*. Especially worthy of attention is the control exercised by the authorities in Valencia, as in many other European cities, over luxurious materials in clothes. This was one of the most obvious forms of social distinction, and the elites were reluctant to comply with such prohibitions. García Marsilla, "Ordenando el lujo."

30 Sanchis Sivera, *Vida íntima*, 127.

31 The Moorish population began to stabilize in the middle of the 14th century, when the monarchy began to prohibit emigration, which, until then, had been simple and habitual. Ferrer i Mallol, *Els sarraïns*, 162.

on the mountain of La Taverna, 50 kilometers south of the city of Valencia.³² The land in the valley, an area inhabited mostly by Moors, belonged to the Cistercian monastery of Valldigna. After being alerted, the local judge, the *alamí* (the Muslim community's representative) and some other people went to inspect the body. There they found the body of a man who had been devoured by wolves. Only bare bones remained, and the head had been separated from the body. Among the remains they found some garments (shirt, waistcoat, smock and esparto grass espadrilles) that made it impossible to determine whether the man was a Christian, a Moor or a Jew. It is worth pointing out here how difficult it was to identify peasants in an area where the three religions lived cheek by jowl; here, inter-religious contact was as close as in the city, and people were confused even more frequently.³³ At this point the questions arise: what decision was made with respect to this corpse? What ritual was used, and in which cemetery was it buried? We have no information about this, but the authorities undoubtedly faced an unsolvable problem with clear repercussions – considering the Christian anxieties of the time – for the resurrection of the deceased: from the 12th century at the latest, bodies could only be buried in consecrated cemeteries in order to obtain salvation.³⁴

2.4 Infanticide, Stolen Babies and Identity

In 1440, Antònia Sobirats, a midwife well known in Valencia, was hanged in the market square after being condemned for stealing an infant, who died in her care.³⁵ Seeing the mother, one Violant, struggle to breastfeed her baby, the midwife had persuaded her to let her take baby Lluïset to the Hospital de la Reina (Queen's Hospital), where they would look after him properly. But when

32 Garcia-Oliver, *La vall*, 45.

33 In other circumstances, in the same valley, it *was* possible to identify the person who had stolen cattle fodder, with the help of a piece of green cloth that had been torn off and got stuck during his escape. The judge discovered him because there was only one man in that place who dressed in that material: "Castioll, el pastor." Garcia-Oliver, *La vall*, 195.

34 Bynum, *The Resurrection*, 204.

35 ARV, Justícia criminal (JCr), 97 (11 April 1440). Laws 77 and 78 of Valencia condemned perpetrators of infanticides and parricides to death, specifically to be burnt at the stake. *Furs de València*, 103–104. It must be noted that these crimes were considered utterly reprehensible, as they went against the established natural order and against the family. Therefore, across different parts of Europe, the sentences for women found guilty of infanticide served as an example for others, and in many cases involved an atrocious death. The case of Belgium is discussed in Leboutte, "Offense against," 165. Germany is treated in Hässler and Hässler, "Infanticide in Mecklenburg," 90.

Violant wanted her son back, Antònia again told her not to worry, and that she would find him. In the end, it all turned out to be a ruse. The midwife had promised to hand over the child for a sum of money to Lloraca, a merchant's sterile wife, who had pretended to be pregnant and then to have given birth. Unfortunately, the infant died while in Antònia's care, and so she decided to bury him secretly with the help of her husband. There is no record of an exhumation of the baby's body, almost certainly because too much time had passed by the time the truth was discovered, and it would have been in the process of decomposition.

During the interrogation, Antònia said that at least ten mothers had asked her to leave their babies at the gates of hospitals, either because they could not support them or for other reasons. Antònia claimed that "it was better to leave them at the hospitals than for the mothers to throw them into the irrigation channels," thus referring to the reality of infanticide.³⁶ But the way in which Violant was able to discover that her son had been in the hospital of Saint Vincent is also interesting. The clothes and the admission slip bearing the baby's name (Lluís), which had been attached to them, were crucial. In fact, the practice of leaving an abandoned infant's name with it at the hospital was common when the baby had already been baptized. Violant recognized the *gonelleta* (a small garment composed of a top and a skirt) and the *maneguetes* (little sleeves). The man at the hospital had evidently made a detailed note in his register, as was common, of the infant's arrival and the clothes it was wearing: "two small old bedspreads, two used red nappies, a towel in which it was wrapped, a small woolen cloak, whose color he does not remember, and a small linen cap on its head."³⁷ Once again the written registers, carefully kept in the hospitals, show us how valuable they were as a very precise guide to

36 "Que més valia que-ls lançàs per spitals que no que les mares los lançassen per les çèquies." ARV, JCr, 97 (11 April 1440). There seems to be an agreement among the historians of the field that infanticide – understood as the killing of infants a few days after their birth – was quite unusual in the medieval period. It was a step taken in desperation, e.g. in periods of economic hardship and famine, and the majority of infant deaths were rather caused by accidents or the fear of rejection for being the product of an inappropriate relationship. Shahar, *Childhood*, 122–126. Known cases from different parts of Europe show that the culprits were usually young unmarried maids who were fighting social conventions, and in short, against unwanted pregnancies. Rowlands, "In Great Secrecy," 179. However, times in which poverty increased, especially in the countryside, tended to have an increased rate of infanticide. This is pointed out for the Italian context in *Historia de la vida privada*, 262–263.

37 "Dos vanovetes sotils, dos bolquers vermells ja usats, una tovalola ab què era cenyit, e hun drap de cap foradat e una gonelleta de drap de lana, no recorda ella, confessant, de quina color, ab hun bolquim de lli al cap." ARV, JCr, 97 (11 April 1440).

identifying foundlings, and other people, some of whom died later, and who had come to the institution from far and wide.³⁸

Yet another case which shows us the reality of infanticide also demonstrates the impossibility of identification. In May 1449, a dead infant, one or two days old, was found beneath a bridge over the Na Rovella irrigation channel, the principal waterway that penetrated the city to supply the craftsmen's quarter and the market with water.³⁹ From the examination of the corpse it could be deduced that the death had been violent, and might even have been ritualistic, as, "the baby presented some stab wounds in the head, or similar, from which blood flowed, and its navel was tied."⁴⁰ This indicated that the birth had been attended by somebody. Therefore, and with the aim of obtaining information about the baby's identity, various women were questioned as to whether they recognized the infant and knew who its parents were. But no information was forthcoming. The case is illustrative of the procedure, as at no time doctors were summoned to give their expert opinions. The idea was simply that hopefully any midwives (*madrines*), i.e. women who attended childbirth, would provide clues for the identification of the infant by sight.⁴¹ But a very important question must also have been in the air: had the infant been baptized?

38 The thorough recording of these details in hospital admission books made it easy to identify the babies. Mandingorra Llavata, "Escribir y administrar." For examples of hospital registers see Rubio Vela, *Pobreza, enfermedad*; and Gallent, "Aproximación."

39 It is difficult to know to what extent infanticide was a habitual practice in medieval Valencia. The characteristics of infanticide are secrecy and the silence that usually envelops this crime, and this means that it seldom comes to light. Rowlands, "In Great Secrecy," 193. But thanks to sermons preached in Valencia we know about infanticide. The examples given were those of wet-nurses (*dides*) who neglected and accidentally killed a baby in their charge, or mothers who killed their baby to hide their sins. *Sermons*, 212. It was not unusual for a breastfed baby to die in its parents' or wet-nurse's bed, crushed to death or suffocated by the weight of the adults' bodies. They could also suffer numerous accidents involving dangerous objects, animals, water or fire. Laws were even passed to prevent this kind of accident. Shahar, *Childhood*, 129 and 139.

40 "Lo qual infant tenia en lo cap algunes pungades de agulla o semblants, de les quals pungades exia sanch, e tenia lo melich ligat." ARV, JCr, 23 quire 3, s.d. (26 May 1449). It is difficult to discern whether the ritual was associated with infanticide. This way of killing a newborn baby is cited in the book *Das Leben des Seligen* by the German Dominican Heinrich Suso (1300–1366). A woman had spread the rumor that Suso was the father of her child. Suso then proposed various ways of killing her baby, including the sticking of a needle into its brain. Cited in Shahar, *Childhood*, 137.

41 Although it is not explicitly stated, the women questioned must have been midwives, whose job was to help with childbirth. On midwives in Valencian hospitals in general, see Rubio Vela, "La asistencia," 179–180. On their importance as witnesses in trials, see the Rothenburg case in Rowlands, "In Great Secrecy," 186–191.

We must remember that from the 13th century onwards the Church intensified, by all possible means, the requirement of a baptism, and an awareness grew about children's salvation. An unbaptized infant could not be buried in the cemetery, despite the fact that some parents resisted and buried them very close to the cemetery, as has been discovered in some places in France.⁴² Indeed, when Violant's stolen baby died, Antònia and her husband did not hesitate to take it to the cemetery and bury it under cover of night.

2.5 Corpses in the Water

Valencia is located in a meander of the river Guadalaviar [Turia], and its physical limits extended southwards towards the environs of the river Xúquer.⁴³ The proximity of the city to these rivers and the development of an intricate system of irrigation channels (*sèquies*) made possible the gradual creation of an area of fertile farmland (*horta*). Moreover, the city was crisscrossed by many channels that supplied water to the artisanal districts and to dwellings. In those days passers-by were at high risk. This is corroborated by the fact that, from time to time, corpses appeared in these channels, both within the city walls and just beyond.

Some bodies were known to have been thrown in on purpose, so identifying them was not a problem. Thus, in November 1432:

The honorable lieutenant of the governor of Valencia, and also the bishop's vicar general, *micer* Gauderic de Soler, ordered the body of the *converso* (converted Jew) Manuel Català, hanged yesterday, to be disinterred, as the body should have been thrown into the river and not in the city, and he ordered Diago Pous, the bailiff, to have it dug up and thrown into the channel.⁴⁴

On other occasions, an accident might be the cause of someone's drowning. In March 1422, a ten-year-old boy drowned when he fell into a channel. The *justícia* and his officers examined him and saw that there were no bruises or

42 Park, "Birth and Death," 21.

43 García Marsilla, *La jerarquía*, 36–37.

44 "Lo honorable lochtinent de governador, com lo honorable micer Gauderich de Soler, oficial e vicari general del bisbe de València, requiris a aquell que Manuel Català, convers, qui-s penjà hir, se devia lançar en la rambla, e no-s devia soterrar dins la ciutat, provehí e manà a-n Diago Pous, son alguazir, que faça desoterrar aquell, e-l faça lançar a la rambla." ARV, Governació, 4312, quire 4, f. 22r (27 November 1432).

wounds, that it looked like an accident, and that he had simply fallen off his horse and drowned accidentally.⁴⁵ In June 1440, Jaume Llàtzer, a peasant from Torrent, appeared drowned in the Picanya irrigation channel, in Torrent's municipal territory, in the *horta* of Valencia. After questioning Llàtzer's parents and relatives the judge decided not to pursue any kind of investigation and allow him to be buried, since everybody believed that he had drowned, "as he was ill with the falling sickness," – that is, he was an epileptic.⁴⁶

Particularly interesting is a case in which doctors appeared as experts for the first time: a case of alleged drowning on 13 March 1445. Joan Deuloféu, a citizen of Valencia, appeared before the court of the *justícia criminal* to report that he had found a corpse: "When he had gone to the channel and he was in front of *mossèn* Guillem Bonet's fields, in the river called Xúquer, where it is very deep, he saw a dead man."⁴⁷ The reference here is to a deep depression in the bed of a river, where the water is dammed and it slows down, sometimes forming an eddy or simply calming down. These are very dangerous places, and it is no surprise that individuals who ventured into the water to bathe or who fell in were drowned there.⁴⁸ The scarcity of bridges meant that rivers often had to be crossed at fords, or using structures made of tree trunks or small boats. Using these methods to cross this kind of river, which also experienced heavy rises in the water levels in spring and autumn, was obviously dangerous. In the mid-fifteenth century, a chronicler reported the news of two women who unwisely risked crossing the Xúquer, ignoring the strong wind that was blowing from the bank. It was several days before the bodies were found, a long way downstream.⁴⁹

45 ARV, JCr, 19, quire 4, s.d. (9 March 1422).

46 "Que crehien que-s fos offegat, com aquell hagués mal de caure." ARV, JCr, 21, quire 2, s.d. (4 June 1440).

47 "axí com era anat a la rambla e fon davant l'ort de mossèn Guillem Bonet, en lo riu appellat de Xúquer, on se fa un gran gorf, veu allí un hom mort." ARV, JCr, 22, quire 2, s.d.

48 The Xúquer is the fastest-flowing river in the Valencian Country. It flows parallel to the Túria, crossing the whole territory of the old kingdom in its lower course, about 30km away from the city. Therefore, the journey of the *justícia* and his subordinates must have taken several hours. Both rivers are noted for their irregular regime, with spectacular rises in the water level in spring and above all autumn, often causing significant flooding, and with markedly low water levels and prolonged droughts, which occasionally made it possible to cross the rivers on foot. The Xúquer is also a river with pronounced meanders. The physician Jaume Roig, in his 1460 novel *Espill*, alludes to the deep depressions that formed in this river, which were unquestionably very dangerous for anyone who tried to cross it. Roig, *Espill*, vv. 12280–12283.

49 Peris Albertosa, *Història de la Ribera*, 181–191.

In our Valentian death of 1445, the judge went to the place of drowning accompanied by the notary Joan Garcia to file an official report.⁵⁰ When he was there, he asked a Moor called Azurani from the city's Moorish quarter, who was present, to pull the body out. He tied a rope around it and pulled it out of the water. He was then ordered, with the help of another local man who was also present, the bookbinder Francesc Remolins, to undress the cadaver, for the purpose of "seeing and verifying if there were any bruises or wounds or if he had drowned."⁵¹ The priority was to find out if this was an accident or a crime.

The scribe wrote a detailed description of the drowned man's clothes as they were being removed, referring to the material and the color: "He was dressed in a used, very dark woolen tunic, a blue woolen short-sleeved doublet [a tight-fitting garment that covered the body from the neck to the waist], a linen undershirt, buttoned woolen hose, and he was not wearing any footwear, as he was barefoot."⁵² Then the body was searched, and "a small bag in which he was carrying two rings in the Moorish style, one adorned with a glass stone and another one with jet in the form of a tube" was found.⁵³ All in all, there was absolutely nothing out of the ordinary that would have enabled them to identify the man.

It is then that we discover that the judge was further accompanied by two medical men who had not been named initially: the physician and master of arts and medicine, Jaume Radio, and the barber-surgeon Pere Gurrea, both

50 The fact that in Valencia a local judge had the job of removing the corpse made the whole process easier and quicker. In the kingdom of Aragon, which bordered on Valencia and was also a constituent part of the Catalan-Aragonese confederation, the custom was for the *merino* to be the official for this job in the 14th century. But its territorial demarcation was so large that he took a long time to reach the places where corpses appeared. In the meantime, wild animals might partially devour the body, or might have entered an advanced state of decomposition. Faced with this, and also due to the offenses committed by these judges – especially charging hefty sums to allow the relatives to take the body away – a law was passed whereby the local authorities or bailiffs representing the king were charged with removing the corpse. The case of Jaca is preserved in the Archives of the Crown of Aragon (ACA), Cancelleria reial (C), reg. 758, f. 175r–v (13 December 1371); Daroca and its hamlets in ACA, C, reg. 943, f. 48r (16 March 1384).

51 "Per veure e regonèxer aquell si tenia naffres o colps alguns o si seria stat offegat."

52 "Lo qual era vestit de una cota de drap burell, ja usada, un gipó blau amb miges mànegues burelles e camisa de li e payos e calces burelles ab botons dins ab dolla, senses çabates e spardenyes, los peus descalços." On the nature of these garments, see Astor Landete, *Indumentaria e imagen*, 142–144, 167–169.

53 "E fon li atrobada una bosseta chiqua vermella, dins la qual havia dos anells de llautó morischs, en la hu dels quals havia dues pedres de vidre e un trocet de atzebeja en manera de canonet."

residents of Valencia.⁵⁴ The king's attorney general, Pere d'Anglesola, was also present. The experts, doctor and surgeon, said "that on his body they had found neither bruises nor wounds. But it was true that on the head and the face they had found some evidence of marks resulting from blows or the effects of drowning."⁵⁵ They were, thus, unable to state clearly if the cause of death had been the result of an accident or a crime. The choice of these two medical practitioners is striking, and we do not know why the *justícia* chose them. One, Radio, was a well-known, renowned doctor; the other was a barber-surgeon, one of the hundreds in the city. The combination of a physician and a surgeon in these expert reports is not unusual, although the latter's experience was far more useful in this context, since he worked on wounds and all kinds of external diseases of the body every day, as opposed to the theoretical approach of the physician, who was more concerned with internal medicine.⁵⁶

54 Jaume Radio was an examiner of doctors from 1443 to 1461. He acted as an expert in the identification of the corpse of Angelina Bertran, which has been mentioned above. He was the doctor at the Queen's Hospital and for the royal household. In fact, we have the interesting letters that Queen Maria, wife of Alfonso V the Magnanimous, sent him requesting his services (1445) – plus the mediation of the knight Jofre de Monpalau in obtaining them. Radio was a substitute for Gabriel Garcia, the queen's former doctor, who was his father-in-law. Such were his connections that Jaume Radio signature appears thanks to his role as a witness in one of the codicils of the queen's will, on 31 March 1458. In a codicil written the year before, the queen bequeathed him 500 florins to help him with his daughter's dowry. A few more details survive relating to his work as a doctor before serving the queen. Thus, in January 1442 he was paid 30 *sous* and 2 deniers by the widow of one Llorenç Martí, whose son he visited in 1439 during an illness. Radio seems to have died in the first days of September 1462. All this information is compiled in the *Arxivo Rodrigo Pertegás*. Gurrea was also known by his alias, Eximénez, although another notary wrote him down as Pere Eximénez, alias Gurrea. There are only a few documentary references to him, relating to the ownership of a house and garden and their sale. ARV, Protocols, notary Vicent Saera, 4391 (11 January 1440); Protocols Archive of Corpus Christi College of Valencia, notary Jaume Vinader, 9535, s.d. (20–21 August 1443). In the case of Valencia, as generally in the Crown of Aragon, the opening of the cadaver ordered by a judge was closely linked to cases of poisoning. We can also see this for other contexts, for example for Italy. See Ferragud, "Los peritajes," and the bibliography provided there for the European context.

55 "Que en lo cors del dit hom no y trobaren colps deguns ni naffres alguna. És veritat, emperò, que en lo cap e cara veyen e conexien alguns vestigis de colps o de offegament."

56 Thus, for example, on one occasion he declared before the criminal justice that a wounded man whom he was attending to had died in his house: "Guillem Sanç, a weaver, was found dead in the house of Pere Gurrea, alias Eximénez, a barber, from a dagger or knife thrust in his vocal chords, on the right-hand side of the throat" ["És trobat mort en Guillem Sans, teixidor, en la casa de Pere Gurrea, alias Eximénez, barber, de un colp de daga o punyal en les cordes del coll, a la part dreta"] ARV, JCr, 19, quire 6, s.d. (11 May 1422). On the

As nobody could identify the man, they decided to cover him and take him to the cathedral square, with the aim of exhibiting him publicly in case anyone recognized him. Not happy with the result of the medical examination, the judge summoned the same two doctors, as well as the physicians Ramon de Facs and Gabriel Garcia and the surgeon Joan Ferragut, who were eminent figures in the city.⁵⁷ They were to appear at eight o'clock of the following morning to examine the body in more detail. The bailiff went to each of the said doctors' and surgeons' homes to look for them. Three of them were out, but he left a message for them to turn up at the agreed time.⁵⁸ The only thing we know about their intervention is this laconic note by the scribe:

After a while, on that day, the said honorable master Ramon de Facs, master Jaume Radio, master Gabriel Garcia, master Joan Ferragut and Pedro Gurrea recounted that by virtue of the order they had been given they had gone to the square where the said man lay, whom they had seen, and acknowledged that as far as they could see there was evidence of blows to the head and the face, and also of drowning.⁵⁹

Unfortunately no further medical details of the experts' report are given. But the ambiguity of the testimony left the question open whether the process of looking for a criminal should have begun. In the end, the only thing we know about this story is that, since no one had come forward to claim the body,

everyday work of barber-surgeons in Valencia in that period, see Ferragud, "Els barbers." Demaitre, *Medieval Medicine*, 77–79.

- 57 The list of the known facts about the lives of these three doctors, and their professional careers, would be extremely long. I am currently working on a study about their work as experts in the court of the *justícia criminal* in Valencia.
- 58 We suppose that the *saig* (the deputy bailiff) must have gone to look for the doctors very early in the morning. That three of them were not at home is an example of the customs and also, perhaps, of the peculiar working day that those professionals must have had in the Middle Ages. Some of them hired escorts and had been granted the privilege of carrying otherwise forbidden weapons for their protection. Ferragud, *Medicina i promoció*, 221–229. The English case is quite similar to ours, with the exception of the participation of the coroner, which is specific to the United Kingdom. Most corpses were identified by relatives and friends. In cases of sudden or unnatural death, the coroner was automatically in charge of the identification, even in cases of skeletons. He would question the person who had found the corpse, which was undressed, and wounds, burns or signs of strangulation were observed. Later, the jurors identified the body and determined the cause of death. Finally the arrest of the accused was ordered. Higgs, *Identifying*, 86.
- 59 "E a poch instant del dit dia, los dits honorables mestre Ramon de Facs, mestre Jacme Radio, mestre Gabriel Garcia, mestre Johan Ferragut e en Pere Gurrea feren relació ells en virtut del dit manament a ells fet, ésser stats a la dita plaça hon jahia lo dit hom, lo qual han vist e regonegut que tant com ells podien veure ne conèixer en lo dit hom, troben vestigis de colps en lo cap e en la cara e de offegament." ARV, JCr, 22, quire 2, s.d.

the judge ordered one of the superiors of the brotherhood of the *Innocents*, a barber-surgeon named Pere Alfonso, to take care of the burial.⁶⁰ At this point, let us pause to consider the role played by this institution in the handling of corpses.

The brotherhood of the Innocents was created thanks to a papal privilege of 29 August 1414. Initially there were 58 brothers and five sisters helping, protecting and serving the poor and sick, who were considered outcasts and sometimes dangerous, and who could also be mistreated and die without anybody making arrangements for their burial.⁶¹ From 1440 onwards the brotherhood was also responsible for collecting and giving a Christian burial to the corpses of those who died in the city and its outskirts, up to a distance of one league, as well as shipwrecked persons that had washed up on the beaches within a similar distance from the city. When this happened the brothers and sisters usually went to the relevant place to pick up the body and take it to their headquarters, or the cathedral, or another church where the brotherhood had a tomb. The brothers and sisters formed the funeral cortege, and the brotherhoods' robes and ornaments were used.⁶² The body was given a new robe that reunited it in burial with the people of God.

2.6 Identifying the Corpses

The examples given of the identification of corpses in late medieval Valencia show us that three methods or instruments were used for it: the visual inspection of the face and its recognition by acquaintances, the clothes, and the written registers. These are identical to the methods used in the rest of Europe. The interest shown in the clothes and accessories that individuals wore is worth emphasizing; in the medieval period most people had very few clothes, and they became a distinctive element. It is also true that while certain signs – such as the badges imposed on Jews and Muslims – could identify the wearer's religion, marks on the body such as tattoos could give away a slave, and a mutilation (the loss of an ear or a hand) might identify someone as a criminal, we do not know of any cases in which they were traits that apparently helped to identify a corpse.⁶³

60 Rodrigo Pertegás, *Historia*, 19–30.

61 The municipal government also took an interest in contributing to poor people's burials by paying for their shrouds. AMV, Manuals de Consells, A-35, f. 22v (3 July 1450).

62 Rodrigo Pertegás, *Historia*, 107–108.

63 Approximate identification by facial features could bring with it quite a few difficulties. In 1374 the son of a weaver from Valencia was “mistaken” for an escaped Tartar slave. The young man had gone to Xàtiva to work, and there he was captured because of “his small

With regard to the intervention of experts in the identification of corpses, it may be claimed that this was one of the factors subordinated to the discovery of the causes of death, and no further progress could be made due to the technical limitations of the time. However, in Valencia one observes an extraordinary medicalization of justice halfway through the 15th century, largely due to the large-scale introduction of Roman law in its legislation, and a context that was very propitious for the assimilation of medicine thanks to contact with the Arab world. A good example of this would be Arnold of Villanova's ties with the city of Valencia. Although the development of medical and legal practices in the cities of northern Italy or Provence is generally given special consideration, the quality of the information and the variety of expert reports in Valencia that have been discovered in its archives in recent years clearly point to a considerable development of legal medicine.

However, in short, if there was one thing that became very important as a way of identifying a corpse, it was the symbols which evinced the religion of the dead person, in a period when ceremonies associated with death were essential in the functioning of the community of the living. In the Christian context, of course, its complexity depended on the social group to which the corpse belonged: the tolling of bells, the shroud, the showing of the body, its accompaniment to the church, the funeral Mass, the preparation of the grave, the burial.⁶⁴ But this was even more complex in a multi-religious society like Valencia, where Christians, Jews and Muslims were living together at close quarters. The need to identify the deceased's religion was essential in order to be able to bury him or her in the appropriate community's cemeteries, and according to the appropriate rituals.⁶⁵ How could one's eternal rest be imagined next to the murderers of Christ or the members of a perfidious sect? For Christians the charitable deed of burial was essential for mortal remains that were to be resurrected on Judgment Day to rest in peace. And here the various identification techniques and the help of experts played an important part.

stature and for having quite a big flat face, very similar to the faces of the Tartars." ["pocha estatura ab la cara queacom grossa e plana, quasi semblant a disposició de faç tartaresca"]. Rubio Vela, *Epistolari*, 286. On one occasion, a man named Bernat de Savall received a certificate from King Peter IV the Ceremonious regarding the accidental loss of his left ear as a consequence of being bitten by a horse while he was working in some stables, and not as the result of a judicial mutilation. ACA, C, reg. 1192, f. 88r (13 January 1364).

64 Higgs, *Identifying*, 87.

65 On the Jewish burial ritual, see Lourie, "A Plot," 207 and 215.

Reading the Corpse in the Late Middle Ages (Bologna, Mid-13th Century–Early 16th Century)

Tommaso Duranti

3.1 Introduction

In Bologna, on 1 March, 1302, a doctor of medicine and lecturer at the city's university named Bartolomeo da Varignana, the *physicus* Giacomo di Rolandino and three surgeons (*medici in cyrurgia*) called Tommaso Grincius, Giovanni da Brescia and Pace di Angelo, prepared an autopsy report, upon request of Giacomo, an *ad maleficia* judge (criminal judge). Their report was on the corpse of Azzolino Onesti, a man of whom it was suspected that he had been poisoned.¹ This report is one of the most famous medical appraisals of the late Middle Ages as it presents three noteworthy elements: a legal mandate to conduct a medical appraisal; the involvement of different health professionals (one famous doctor of the *Studium*, one physician, and three surgeons); and the first documented reference to a dissection conducted for the purpose of an autopsy. At the center of all this, subject to the (metaphorical) gaze of the judges and the (real) gaze of the evidence-seeking doctors, was an open cadaver.

3.2 A Preliminary Remark: Why Bologna?

Around the middle of the 13th century, legal and medical scholars began to ask themselves what experts were able to see when they looked at a dead body; therefore, the body in general, and the corpse in particular, became subjects of a specific, specialist interest. The most evident consequences of this reflection are well-documented: the emergence of early medical-legal appraisals and, soon afterwards, the 'invention' of anatomical dissection as a tool of knowledge.² In Bologna, these two aspects appeared practically at the same time and it is highly unlikely that this was mere coincidence.

¹ The autopsy report survives in the Archivio di Stato di Bologna, *Curia del podestà*, Carte di corredo, a. 1302, and was published in Simili, "Bartolomeo da Varignana," 6–7.

² On the invention of the anatomical gaze, see Mandressi, *Le regard*.

The above-mentioned practices had been abandoned for several centuries following the end of Antiquity, but they increasingly reappeared in various contexts in the course of the 13th century. Research, particularly when conducted as part of doctors' appraisals, shows a near-simultaneous return of these practices in various European contexts; therefore, the practice of anatomical dissection is not unique to Bologna.³ However, as the case outlined above indicates, from the second half of the 13th century onwards, several factors contributed to an increased interest in dissection in Bologna, and to discernible intellectual dynamics around a common object: the human corpse. While the relatively rich documentation and the high level of written medical expertise alone are valid reasons to consider Bologna as a case study, the co-existence of doctrines of doctors of civil and canon law on procedural experimentation and its regulatory framework, on medical science within the university and the 'new rational surgery,' and the emergence of philosophical thought, in which many university doctors were involved thanks to the institutional and doctrinal fusion that occurred, in Bologna, when liberal arts and medical disciplines came together, are even more important.⁴ The Bolognese context, therefore, offers an important insight into an underlying cultural shift that justified and rendered possible the innovations that occurred from the mid-13th to the early 14th century. The themes of the emergence of the medical-legal discipline and of the rise of the anatomy in the university medicine are widely covered in the historical literature, but are mostly taken into consideration individually and in relation to a specific field.

The historiography of the 19th and early 20th centuries had considered medical reports above all as anecdotes and sometimes for celebratory purposes; subsequently, the medieval medical reports were the object of analysis

3 On the Bolognese case, see Simili, "Sui primordi"; id., "Bartolomeo da Varignana"; id., "Un consiglio"; id., "Tre caratteristiche inquisizioni"; Münster, "La medicina legale in Bologna dai suoi albori"; id., "La medicina legale a Bologna nel Quattrocento"; Dall'Osso, *L'organizzazione medico-legale*; Ortalli, "La perizia medica"; and more recently Chandelier, Nicoud, "Entre droit et médecine": in addition to all these studies (and to Mazzoni Toselli, *Racconti storici*), for further examples to the ones given of medical investigations in Bologna. For other geographical contexts, see Busacchi, "Necroscopie trecentesche"; Carraway Vitiello, "Forensic Evidence"; Collard, "Secundum artem"; Ferragud, "Expert Examinations"; Kantorowicz, "Cino da Pistoia"; Park, "The Criminal"; Pouchelle, "La prise en charge"; Ruggerio, "The Cooperation"; Shatzmiller, "The Jurisprudence." For the comprehensive history of academic dissections in the Middle Ages and Modern Ages, see Carlino, *La fabbrica*; French, *Dissection*; Mandressi, *Le regard*.

4 McVaugh, *Rational Surgery*. On the vibrant, innovative philosophical environment of the 13th and 14th centuries, and its connections (institutional, doctrinal, biographical) to medicine, see the recent Casagrande, Fioravanti (eds.), *La filosofia in Italia*.

especially from the judicial point of view and in the context of the emergence of the medical expert. In addition to this, Mondino Liuzzi's *Anothomia* also needs a reinterpretation: some have deemed his work important or revolutionary, others have stressed its 'completely medieval' inadequacy, a judgment that was often supported by a narrative which still adhered to the myth of ecclesiastical prohibitions and the heroic challenging of a taboo.⁵

Liuzzi's *Anothomia*, which has been received with varying opinions on its success throughout history, constituted essential reading for students of anatomy for at least two centuries; it even survived the publication of the most famous and innovative anatomical work, Andreas Vesalius' *De humani corporis fabrica* in 1543. Both Renaissance and modern critics have frequently highlighted Liuzzi's 'blind' faith in the writings of medical authorities, and Galen in particular. Some have pointed out that such respect towards authorities resulted in the perpetuation of anatomical errors which not even the direct evidence of a cadaver would put into question. In 1975, Levi Robert Lind offered a biased periodization by focusing his study on pre-Vesalian anatomy.⁶ Twenty years later, Andrew Cunningham's research on the Renaissance period dedicated a chapter to Antiquity, and another to the period "Between Ancients and Moderns."⁷ The Middle Ages, therefore, were once again viewed as a thousand-year interval between the glory of Antiquity and the Modern Age.

Although Liuzzi's work is still criticized, sometimes even scathingly, more recently, historians have moved away from a teleological view of the history of medicine. The *Anothomia* – and medicine and the medieval sciences in general – are not interpreted anachronistically as episodes in a positivist march towards modern 'science'; rather, they are seen as an expression of the knowledge and practices of their own era. If we want to look at innovation and progress, it is better to look at the advancements of the Middle Ages in relation to older works and innovations rather than those which followed them or even occurred several centuries later.

Recent research offers a contextualized interpretation of the 'invention' of anatomical dissection in the Middle Ages: a moment of transformation based on the medical thought of the time and its new practical and theoretical approach towards the corpse.⁸

5 It is now known that there existed no ecclesiastical prohibition of dissecting: see Brown, "Death"; Mandressi, *Le regard*, 20–35; regarding the taboos connected to the corpse, in addition to Mandressi, see Carlino, *La fabbrica*, and its bibliography.

6 Lind, *Studies*.

7 Cunningham, *The Anatomical Renaissance*, 37–56.

8 This has been highlighted, *inter alia*, by Katharine Park, Roger French, Andrea Carlino, Rafael Mandressi, Romana Martorelli Vico and, more recently, Joël Chandelier.

From what has been said so far, the specific role that the city of Bologna played at the time emerges: the Faculty of Law was the *auctoritas* (authority), and in the late 13th and early 14th centuries similar importance was attributed to the Faculties of Medicine and Philosophy. I have therefore chosen to focus on the two above-mentioned aspects in this chapter: legal autopsies and dissections conducted for academic purposes predominantly within the Bolognese context.

Legal autopsies and dissections executed for academic purposes appear to be very different from one another. On the one hand, there is the law and, more specifically, its practical application; on the other, there is medical knowledge, which is characterized by the interconnection of theory and practice. Although they are different, it is nevertheless possible to consider these fields as two expressions of a new, shared intellectual approach. Moreover, they have as their research focus the same subject (the corpse) in common, which may indicate that they also have range of vision in common. Additionally, their research was motivated by anatomical curiosity, intended to reveal a truth within a purely sensory framework.⁹

One common point between the two fields on a greater level are the professional figures involved in these two types of anatomical inquiry: the medical practitioner and the doctor of law. The medical practitioner was not only in charge of the actual work on the corpse, in both contexts, but, if he was also a *doctor medicinae*, his learning and didacticism also provided an epistemological justification for the use of the human corpse as a tool of knowledge. The *doctor iuris*, the legal doctor, who worked not only on legal procedures but also the legal doctrine which justified them, was part of the same academic milieu as the medical doctor, so that exchanges between the two disciplines must have occurred more frequently than we can firmly establish.

The intriguing chronological coincidence of the two types of dissection (legal and anatomical) naturally inspires a comparison of the two, and a search for common traits and reciprocal influences. However, it is important to note their distinctions: even if the anatomical dissections conducted in university settings were ritualized, spectacular events regulated by university statutes (and further developed in this direction especially in the modern period), they primarily presented an opportunity for teaching and studying.¹⁰ Opening up a corpse in this context served, first of all, the acquisition of knowledge, perhaps, as previously mentioned, with a strong desire to confirm knowledge recorded

9 Mandressi, *Le regard*, 59. Cf. Jacquart, *La médecine*, 105.

10 For Bologna, in addition to the already mentioned bibliography (note 3), refer for example to Ferrari, "Public Anatomy."

in authoritative works. In any case, the aim was to increase knowledge and, probably primarily, the knowledge of students; therefore, anatomical dissections had a predominantly didactic purpose. By contrast, the purpose of dissections for judicial purposes – and inquiries relating to bodies in general – was more clearly defined, and the wording of the related writings was determined by that purpose. Unfortunately, this made them harder for scholars to understand and use as a reference.¹¹ It is further important to highlight that, in specific legal terminology, the term *anathomizare* was associated with dissections and autopsies, while the medical-academic terminology used it to refer to anatomical knowledge in general, i.e., to the description of body parts. Its broader meaning referred to techniques of manipulation of the corpse and separation of body parts for funerary purposes, such as embalming or multiple burials.¹²

It is undeniable that the dead body became ‘readable,’ in many domains, during 13th century, which clearly signifies a development. But what intellectual position was the basis of this development? What prompted experts and anatomists to investigate the body on the outside and inside, and more importantly, what justified this action? The central role – almost taken for granted – that is given to corpses and scientific evidence today may prevent us from appreciating the great development that the observation of the body, and particularly of the inside of the body, marked at the time.¹³ But this development was significant: the natural-philosophical reflection of the 13th century focused increasingly on the direct observation of phenomena as an essential means of acquiring knowledge.¹⁴ This can be seen, for example, in the *De arte venandi cum avibus* written by Frederick II, the Holy Roman Emperor. He adopted an Aristotelian naturalist approach and wrote: “our real intention in this book is to make evident the things that are, and the way they are.”¹⁵ A couple of decades later, in his reflections on the *scientia experimentalis*, Roger Bacon stated that “he who wishes to enjoy the truth of things without demonstrative

11 On the contrast between two types (didactic and judicial) of anatomy, see Donato, “Anatomia.”

12 On the polysemy of the term, see French, *Dissection*, 2, 15; Park, “Anatomy”; on other meanings of “*anathomia*,” cf. ead., “The Life,” 111–112.

13 Cf. Mandressi, *Le regard*, 15.

14 Regarding this topic, see the contributions made in *Expertus sum*; particularly, for an overview on the issue, see Bénatouïl, Draelants, “Introduction,” which features a vast bibliography.

15 “Intentio vero nostra est manifestare in hoc libro ea, que sunt, sicut sunt” (Frederick II, *De arte venandi*, 4). Morpurgo, *L’idea*, 148–149, invites us to use a certain caution in the interpretation of this passage on which, he believes, too much attention was placed.

proof, needs to dedicate himself to experience.”¹⁶ Bacon further expressed his criticism of contemporary doctors’ tendencies to rely excessively on speculation (an accusation, as is well-known, which was voiced frequently) in the *De erroribus medicorum*: “in reality, the discovery (*inventio*), especially in the practical sciences that medicine falls under, is obtained thanks to experience and memory.”¹⁷ As Danielle Jacquart has pointed out, Bacon’s critique referred mainly to the establishment of medical teaching at the University of Paris, and therefore should not be considered an accusation of all 13th- and 14th-century doctors, who actually thought about the value of experience in attaining knowledge.¹⁸

In medicine, the question of knowledge acquisition is particularly important. The great authorities of the past, Aristotle and Galen, had stressed the importance of experience over mere book learning, but also the possible distortion that could result from relying on the senses alone.¹⁹ Sensory knowledge was problematic when an individual case was expanded into a general context in order for it to be deemed *scientia* (science). And yet academic doctors were well aware that their discipline, which was both practical and theoretical, specific and universal in nature, could not do without this type of knowledge. The problem was how it could be inserted into an epistemological system with a scientific focus.²⁰

In its initial stages scholastic medicine had adopted a rational, highly authoritative position, in part to justify its worth as a subject taught at a university, emulating the so-called ‘disputes of the arts.’ A fundamental question was to which extent sensory experience could be a source of certainty: this was essential in order to define a *scientia*. This was the central point of the whole reflection of scholastic medicine on itself, which was recently defined as “the

16 Bacon, *The opus majus*, II, 168: “Qui ergo vult sine demonstratione gaudere de veritatibus rerum, oportet quod experientiae sciat vacare.” On the dual meaning of *experientia* and *experimentum* in medieval Latin, refer to Maclean, *Logic, Signs*, 196–198.

17 The entire *defectus* is worth citing: “Tertius defectus est quod vulgus medicorum dat se disputationibus questionum infinitarum et argumentorum inutilium, et non vacat experientie ut oportet. Ante 30 annos non vacabant nisi experientie, que sola certificat; sed nunc per artem Topicorum et Elencorum multiplicant questiones accidentales infinitas, et argumenta dialectica et sophistica infinitiora, in quibus absorbentur ut semper querant et nunquam inveniant veritatem. Inventio enim est per viam sensus memorie et experientie, et maxime in practicis scientiis, quarum una est medicina.” Bacon, *De erroribus*, 154. On these aspects, see also Crombie, *Robert Grosseteste*; and on the role of experience in Bacon: Hackett, “Ego expertus sum.”

18 Jacquart, “La scolastica,” 289–291.

19 This topic has been discussed in a large number of publications: see Maclean, *Logic*, 193 ff.

20 See Jacquart, “La scolastica,” 289–294, and the following note (*infra*).

impossible choice between reason and experience.”²¹ The 13th-century thought derived from this was that only specific branches of medicine obtained certainty from experience, namely pharmacology and anatomy; but this debate also brought about an advanced kind of reflection and created space for the epistemological acceptance of sensory knowledge – a type of knowledge of which William of Ockham was aware in the 1320s when he spoke of sensory intuition as the basis of scientific knowledge.²² All these perspectives must have influenced the medical and philosophical debate in Bologna, which, moreover, flourished thanks to the close connections between Alderotti’s medical school and the centers of knowledge of the mendicant order.²³

3.3 Medieval Anatomy before the 13th Century

In the 13th and 14th centuries, it was an established fact that anatomical knowledge constituted an important part of a doctor’s knowledge. In addition to the practical, and somewhat intuitive, professional practice of medicine, even in a purely epistemological sense according to the authoritative tradition a knowledgeable doctor – at the time similar to a natural philosopher – should, at the very least, have a general knowledge of the nature of the human body. But, in reality, the situation was not that simple. On the one hand, anatomical knowledge derived from the classic philosophical tradition, referring to Plato and especially Aristotle, who had both looked at the human body from a predominantly philosophical perspective.²⁴ On the other hand, the schools of Alexandria, particularly around Herophilos and Eristratus, were found to be of great importance for the anatomical knowledge of the medical tradition.²⁵ Galen’s works repeatedly highlighted the importance of anatomy to a doctor’s training, and even more so to a natural philosopher’s.²⁶ The juxtaposition of the doctor *vs* the natural philosopher may, in fact, have caused direct

21 “Le choix impossible entre raison et expérience.” Chandelier, *Avicenne*, 415.

22 The question of the degree of certainty that can be established for knowledge from *experientia* is vast and multi-faceted; see Chandelier, “Expérience”; Jacquart, “L’observation”; Ventura, “Experimentum”; and with focus on Arnold of Villanova and the Montpellier milieu Crisciani, “Fatti, teorie,” 699 ff.; McVaugh, “The Experience-Based Medicine.”

23 Cf. Siraisi, *Taddeo Alderotti*.

24 Specifically, see Cunningham, *The Anatomical Renaissance*, 10–36; and Vegetti, *Il coltello*.

25 For an overview of ancient anatomical knowledge, in addition to the above-mentioned studies referring to the history of anatomical dissection, see also id., “La medicina.”

26 Many studies have been conducted on Galen’s anatomical knowledge, see for example id., *Il coltello, passim*; Cunningham, *The Anatomical Renaissance*, 25–31; French, “De iuamentis”; Rocca, *Galen*.

anatomical knowledge to play a smaller role in doctors' knowledge in the following centuries. Galen's anatomy, with both its structural and functional aspects, reached the doctors of the late Middle Ages via Arabic mediation of ancient medicine and Salernitan writings; but Galen never discusses the dissection of human corpses, only of monkeys; this choice was one of Vesalius' main accusations against Galen.²⁷

The vast anatomical knowledge that had developed in ancient times, and which was (or was not) obtained through the dissection of human bodies, seems to have disappeared from Western Europe in the early Middle Ages.²⁸ As a matter of fact, it was only in the 12th century that we find medical evidence of anatomical knowledge once more, gathered mainly with two epistemological techniques that may have appeared at different times: an anatomical knowledge described without any explicit reference to direct observation and hence without direct reference to dissections (of humans or animals); and one that, at least in narrative terms, refers to dissections. Of the former writings, which are perhaps easiest referred to as textual-authoritative writings, the main work presenting anatomical descriptions derived from Galen was a translation of Constantine the African's *Pantegni*.²⁹ In Salernitan circles dissections were also carried out for didactic purposes, but as is well-documented, Salerno professors used pigs, not human corpses, for their anatomical demonstrations and followed Galen's example by drafting explanatory texts to be read or recited during the dissection of a pig.³⁰ The sources for these dissections could not be clearly reconstructed, and some scholars suggest that the books were lost, while others postulate that it was an oral tradition in the Mediterranean that transmitted anatomical theories inspired by Aristotle and Galen and eventually converged into the anatomical work produced in Salerno.³¹

When predominantly used for didactic purposes, dissections did not discredit authoritative anatomical knowledge. On the contrary, authoritative anatomical knowledge remained to be the primary source of knowledge. Even Frederick II, the Holy Roman Emperor's famous constitution of 1240, which

27 Carlino, *La fabbrica*, 51–52; on the connection between animals and scientific reflection in Antiquity, cf. Vegetti, *Il coltello*.

28 However, this anatomical knowledge seems to survive in the Byzantine domain: Carlino, *La fabbrica*, 174–175.

29 See Corner, *Anatomical Texts*, 15, regarding the 'Salerno' dissections; see also Martorelli Vico, "Gli scritti."

30 Some emphasize an ethical motivation, e.g. the so-called *Anotomia magistri Nicolai*, in which the dissection of human corpses is called inhumane (*inhumanum*), see Brown, *Death*, 248, while the *Anathomia Ricardi* refers to it as horrible (*horrible est corpus humanus tractari*): *Die Anatomia*, 2.

31 Martorelli Vico, "Gli scritti."

defined anatomical knowledge of the of the human body as an essential prerequisite for becoming a doctor, must not be over-interpreted.³² Beside the fact that the impact of these norms is difficult to reconstruct,³³ there are no elements that indicate that the anatomical knowledge thus prescribed was obtained via the dissection of human corpses – a point already highlighted by Mayer-Steineg and Sudhoff.³⁴ It is more reasonable to assume that the emperor, influenced by Galenic theories, was referring to the acquisition of anatomical knowledge via medical texts, that is, by studying authoritative works, and potentially (as suggested by the case of Salerno) via dissection of animals.³⁵

The great number of translations prepared between the end of 12th and the beginning of the 14th century provided new texts and new possibilities of reflection to Latin Europe, also with regard to anatomical knowledge. In terms of the Aristotelian anatomical tradition, Michael Scot's translation of *De animalibus* from the Arabic before 1220, and then William of Moerbeke's in the 1260s from the Greek, may serve as an example.³⁶ Even more relevant was Gerard of Cremona's translation, prepared in Toledo in the second half of the 12th century. Gerard of Cremona translated a text which, for almost 150 years, was Galen's only known work exclusively focusing on anatomy: this was the *De iuvamentis membrorum*, the translation of an Arabic epitome from Hubaish of Galen's *De usu partium*. The *De iuvamentis*, while short and lacking Galen's thoughts on

32 *Liber Constitutionum*, III.46: the passage in question appears at the end of the constitution, and states that anyone wishing to practice medicine needed to follow the designated curriculum "et presertim anotomiam humanorum corporum in scolis didicerit et sit in ea parte medicine perfectus, sine qua nec incisiones salubriter fieri potuerit nec facte curare." *Die Konstitutionen*, 414.

33 See, for example, Morpurgo, *L'idea*, 165 ff., according to which Frederick II's regulatory project on the medical profession did not even have cultural repercussions on the intellectuals who were most strongly linked to the sovereign.

34 Meyer-Steineg, Sudhoff, *Geschichte der Medizin*, 196; cf. Kristeller, *Studi*, 67–68.

35 The reference to Galen in Frederick II's constitution is an almost verbatim transcription of the *Anatomia magistri Nicolai* of Salerno, which likely dates back to the end to the 12th century. Corner, *Anatomical Texts*, 31–33, which cites Galen's *Tegni*, reads: "Galeno testante quiscunque interiorum membrorum corporis humani dispositionem scire desiderat, ipsum in anatomia exercitatum esse oportet." *Ibid.*, 31. It was predominantly the history books of the 18th to mid-19th centuries – conditioned by the celebratory tendencies of the history of medicine, particularly concerning the figure of Frederick II – which interpreted this norm as the foundation of the first teaching position in human anatomy in a modern sense. Some examples of this interpretation are mentioned in Carlino, *La fabbrica*, 176, note 106; see also De Stefano, *La cultura*, 67: "Fondò presso la scuola di Salerno la prima cattedra di anatomia mettendo a disposizione degli studenti cadaveri umani, quando ancora l'autopsia era interdetta a Bologna": the supposed Bolognese prohibition refers to a famous trial in 1319, to which we will turn later in this chapter.

36 Jacquart, "La scolastica," 284; Mandressi, *Le regard*, 69–70.

the use of comparative dissection and anatomy, was the main reference work until the translation from the original Greek of the *De usu partium* entered circulation thanks to its translation by Niccolò da Reggio in 1317.³⁷ As a result, two texts became available that would play a pivotal role in the renewal of anatomical knowledge during the 13th century.³⁸ The second essential text made available to European doctors thanks to Gerard of Cremona's Toledo translation work was Avicenna's *Canon medicinae*, which influenced medical thought from the mid-13th century onwards.³⁹ Its third book was specifically dedicated to illness and its localization in the body, and was organized in the traditional head-to-toe (*de capite ad calcem*) arrangement, presenting an anatomical description of a part of the body before focusing on its specific illnesses.⁴⁰

The dissemination of these new texts had a fundamental impact on 13th-century doctors' and surgeons' thought, even if there was no explicit requirement to conduct human dissections. Rather, the dissemination suggests that knowledge was acquired not through a dissection, but through diagnostic practice (especially touching the body); or superficially, thanks to what the surgeon saw when dealing with cuts and lacerations of the body; or by dissecting animals that were physiologically and anatomically similar to men. The way in which medical students and practitioners acquired essential anatomical knowledge was, however, still the study of authoritative texts. The great medical experts' studies and writings were deemed sufficient for providing a doctor with anatomical knowledge. Therefore, rather than anatomical knowledge being considered as having little importance, sufficient knowledge was deemed attainable through the study of texts.

This is a system of knowledge acquisition that is so far removed from our own that it may appear primitive, limiting, and almost shocking in its apparent, blatant inadequacy. Obviously, however, such a harsh judgment ignores the demands made by the specific epistemological values of the 13th century.⁴¹

37 Another work which conveyed Galen's anatomical knowledge was the *De locis affectis*, translated as the *De interioribus*. Mandressi, *Le regard*, 72. It is known that the *De anatomicis administrationibus*, Galen's first main anatomical work, was known only from the 16th century onwards.

38 Chandelier, *Avicenne*, 423.

39 On the reception of Avicenna's *Canon medicinae* in the Latin Middle Ages, see Chandelier, *Avicenne*.

40 *Ibid.*, 30.

41 On this aspect, see above Mandressi, *Le regard*; Giovacchini, "L'expérience."

3.4 'New Surgery' and Anatomy

Surgical practices and knowledge played a key role in the reassessment of anatomical knowledge in the medical field; in Bologna, during the 13th century, erudite surgeons' ideas intersected with and influenced the establishment of the Faculty of Medicine, so much so that the Faculty at Bologna took on the legacy of the city's surgical tradition. As Michael McVaugh has shown, the development of surgery – which is often described as playing an essential role in the “promotion of the re-orientation of medicine towards an anatomical-localized understanding of the pathology” – was of much importance in the cities of northern Italy in the 12th and 13th centuries.⁴² Over time, some exponents of this art (*ars*) became aware that their discipline deserved to be a *scientia rationalis* (and realized that it could no longer be taught, or exclusively be taught, in apprenticeships). Consequently, surgical pedagogical writings were required. At Italian universities, a new course on surgery would run parallel with courses on theoretical medicine and practical medicine.

The works which inspired the new course were Ruggero Frugardi's *Cirurgia* (circa 1180) and its revision carried out by his protégé Rolando; the revised version is known as *Rolandina*. The text makes reference to a written tradition of *auctoritates*, but also mentions hands-on experience, which, in addition to being an effective tool of professional self-promotion, also assured the reader of the validity of the content. In other words, experience acted as a guarantee. Around 1270, while Taddeo Alderotti was one of the first teachers at the Faculty of Medicine in Bologna, William of Saliceto wrote his *Chirurgia*. Saliceto also taught in Bologna, although it is not clear whether this was at the newly-formed *Studium* or another school in the municipality. His *Chirurgia*, and his other main work, the *Practica*, is a manifesto ennobling of the two expressions of medicine, the theoretical and the practical, and also surgery.⁴³ It is one of the first learned writings on surgery, and it was written at the time of Alderotti's definition of medicine as both a theoretical and a practical science. Although William made no explicit reference to anatomical dissections in his work, scholars have often considered the *Chirurgia* as derived from the direct observation of a sectioned corpse.⁴⁴ The fourth book, which is entirely dedicated to anatomy, is the first surgical text in which the author, William,

42 Donato, “Anatomia,” 140. Regarding surgery, I here follow McVaugh, “Strategie terapeutiche,” and id., *Rational Surgery*.

43 The authoritative reference work on this is, once again, Siraisi, *Taddeo Alderotti*. A link between Alderotti and da Saliceto was also suggested by French, “A Note,” 466.

44 Cf. French, *Dissection*, 27 ff.; Infusino, Win, O'Neill, “Mondino's Book,” 74; McVaugh, *Rational Surgery*, 32–38; Carlino, *La fabbrica*, 198.

states that his work showcases human anatomy *per visum et operationem*, a Latin phrase which states that experience was acquired directly through experimentation.⁴⁵ However, he is not clearly talking about experience gained from dissections; but the reference to sensory knowledge acquired by surgical operation is in itself extremely important. William's work is dedicated to Bono, in all likelihood Dino del Garbo's father; Dino, who studied and, for some time, taught in Bologna towards the end of the 14th century, was the first to write a comment on the chapter dedicated to surgery in Avicenna's *Canon*.⁴⁶ Around the same time another famous surgeon, Teodorico Borgognoni (son of that Ugo who may have performed the first ever 'medical-legal analyses') attests in his work *Vulnera* to the importance of anatomical knowledge in surgery;⁴⁷ for example, he mentions his personal experience and speaks of cultured men who "were acquainted with human anatomy."⁴⁸

If William of Saliceto's *Chirurgia* represented, in some way, the apex of the rationalization of surgery – so that Saliceto himself stated that the surgical knowledge can be acquired "through reason without ever having practiced it" – this book also prescribes that, for specific cases, knowledge needs to be verified by experiment. This lends importance, at least from a didactic perspective, to the connection between vision and knowledge: "This treatment cannot be taught if the student does not see the operation with his very own eyes."⁴⁹ Mc Vaugh considers the surgery conducted in Bologna in the 13th and 14th centuries to be peculiar: its exponents were not 'merely' surgeons, but fully-fledged members of scholarly medicine. This may have contributed to the adoption of a typically surgical dexterity and sensorial perception in a context that was not (exclusively) surgical, such as the classrooms of the *Studium*.⁵⁰ However, even in these surgeons' writings, the anatomical knowledge was based on written sources rather than on direct experience especially before the background of the *auctoritas* of Avicenna's *Canon medicinae*.⁵¹

45 McVaugh, *Rational Surgery*, 68.

46 Ibid., 236; on Dino del Garbo's comment to the *Canon*: Chandelier, *Avicenne, ad indicem*.

47 *Statuti di Bologna dall'anno 1245*, II, 47.

48 "Qui anathomiam humani corporis non ignoraverunt," quoted in McVaugh, *Rational Surgery*, 68. On Teodorico's work, see *ibid.*, 21–24.

49 William of Saliceto, *Chirurgia*, I, 10, quoted in McVaugh, "Strategie terapeutiche," 385 and 395.

50 Id., *Rational Surgery*, 239–240, which claims instead that, with Liuzzi, anatomy became completely a domain of learned medicine.

51 Ibid., 69 ff., 239–240.

3.5 Anatomy and Autopsies in Judicial Practice

In the same period, expert doctors' reflections and practices in support of legal procedures began to emerge: one of these favored the 'normalization' of human dissection for autopsy purposes.

Enlisting the expertise of a medical professional in legal contexts was not a concept that was new to the 13th century: Galen had already mentioned autopsy investigations; some references are present in the *Digest*, and the medieval 'investigations' carried out in the canonization trials are also important to be taken into account.⁵² At the same time, however, historians generally seem to acknowledge the 13th century as a time of change, a time when referring to medical investigations became not only commonplace, but a progressively integral part of legal thought and collection of evidence. This implies a noticeable change: it provides the basis for the normalization of a doctor's presence during trials, and is a symptom of and contribution to the cultural acceptance of the corpse as an element of investigation.

Doctors probably started to act as experts in legal trials within the canonical context: in two letters dated 1209 Innocent III asked expert doctors to inspect two corpses to determine any foul play relevant to a penal context;⁵³ it is important to note that, in the papal court of the 13th century, anatomical knowledge was held in high regard.⁵⁴ Authors such as Ivo of Chartres and Guillaume Durand highlighted the importance – and the lawfulness – of experts' opinions.⁵⁵ During the second half of the 13th century, the use of expert doctors gained momentum even in the civil domain and in judicial practices; documents survive that attest to medical investigations that were done for trials. This practice was supported by the Roman law tradition; by contrast, in the English legal context, medical expertise was provided by a coroner, a public

52 The investigation of corpses in order to ascertain sanctity may have been the first form of anatomical dissection deemed acceptable for the purpose of legitimisation. In such cases, the purpose of analyzing (and manipulating) the open body was the discovery of extraordinary physical signs which proved the sanctity of the deceased, as it was believed at the time was that this manifested itself visually, and permeated the body (this is also the underlying principle of the cult of the relics). On this topic, see Vauchez, *La santità*, 427 ff.; Park, "The Criminal"; Ziegler, "Practitioners."

53 See O'Neill, "Innocent III."

54 Cf. Paravicini Bagliani, *Il corpo del papa*, 281.

55 Cf. Ascheri, "Consilium sapientis," 534–537; McVaugh, *Medicine Before the Plague*, 207–209; Watson, *Forensic Medicine*, 9–10; Carray Vitiello, "Forensic Evidence," 133–134; Chandelier, Nicoud, "Entre droit et médecine," 236.

officer who had no medical knowledge, but came from a legal background and was, therefore, not a medical expert.⁵⁶

From a civil legislative point of view, the first references pertaining to the involvement of doctors in trials concerning personal damages can be found in the Bologna statutory collections. One statute which dates from 1249, and is repeated in the collections up to the statute of 1258, prefigures the use of doctors as experts in the city's legal system; this statute represents the earliest stage of a regulation which would develop extensively in the course of the following century. Doctors' expertise was not yet formally structured in trials, but their involvement is a precursor to the institution of medical expertise as we know it: for example, it was established that, if called upon by the chief magistrate, *medici plagarum* were required to swear that they would tell the truth about the victim's wounds.⁵⁷

The communal statutes of Bologna of 1288 contained a more comprehensive regulatory framework, which also served as a basis for the legislation of the 14th century. It explicitly established that doctors chosen at random among the "most knowledgeable and worthy [men] in the science of surgery and medicine," were to assess the number of deadly wounds in order to establish the maximum number of those who were potentially accused.⁵⁸ Even the incarceration of someone accused of having inflicted fatal or potentially fatal wounds on someone else depended on the doctors' assessment which was sent by the judge. These norms also indicated the requirements necessary for a doctor to adopt the role of 'coroner,' showing the evolution of a practice which was now regulated and no longer seen as extra-ordinary.⁵⁹

With the 1335 statute, the provisions for medical-legal expertise acquired a definitive set of rules; subsequent statutory provisions in Bologna did not significantly change those established in 1335.⁶⁰ What the 14th-century communal statutes did add to the late-13th-century regulations was the explicit possibility for the offended party to request a medical investigation even before the start of the legal action; the statement that, other than homicide from injury, there were other types of homicide for which the medical expertise may

56 On the use of experts during civil trials, see Ascheri, "Consilium sapientis"; on the English context, see Butler, *Forensic Medicine*.

57 Dall'Osso, *L'organizzazione medico-legale*, 18.

58 *Statuti 1288*, 173: "de sapiencioribus et dignioribus sciencie cirexie et medicine."

59 *Ibid.*, 172–173; 179–181; cf. Ortalli, "La perizia medica," 227–229.

60 *Lo Statuto 1335*, 602–605; on the three subsequent 14th-century compilations of Bolognese communal statutes, see Ortalli, "La perizia medica," 238 ff.; on that of 1454, see Münster, "La medicina legale a Bologna nel Quattrocento," 1–13.

be required (strangling, suffocation, poisoning);⁶¹ the recognition, on behalf of the legislator during the trial, that a potentially fatal wound may at some point no longer be deemed fatal, and therefore – in the case that there was a survivor – naturally require a change of the procedure for the accused; the establishment of a specific number of doctors (two) to be sent to every expert investigation (with possible privileges and exemptions).

Doctors were required to swear an oath at that point and were sent, accompanied by a notary, to examine the body of the wounded or, more frequently, of the deceased. After they finished the examination, they had to draft a report giving the results of their inspection. This type of medical writing was considered a variation of the *medical consilium*. What made it unique was its judicial (not therapeutic) aim; this not only determined the report's content, but also its form.⁶²

It is impossible to establish how exactly the examination of the body took place; a few, sporadic clues appear in the sources, but the reports contained little information. They were drafted by notaries for the expert doctors (even if from the mid-14th century onwards, the number of autograph reports increased), and they generally did not contain any information about the procedure adopted;⁶³ instead, they focused on the result, and described it in an extremely repetitive and concise way, so that the reports look like standardized formulae. This was, above all, due to the fact that even prior to the medical assessment the judge knew details concerning the victim's body. He obtained these from a report drafted by the appointed officer (in the case of an inquisitory trial) or the victim (in the case of an accusatory trial), and via the preliminary investigations in which evidence was collected, e.g. the testimonies of those who had seen the body, or information gathered from eye-witnesses.⁶⁴ Therefore, the expert doctor's responsibility was to form a judgment which was, in essence, designed to dispel doubts, especially (as mentioned above) with regard to the fatal nature of wounds; it was also intended to corroborate or question the testimonies gathered, for example in cases when death was not instantaneous. In 1302, when Bartolomeo da Varignana, Giacomo Cristiani, Bartolomeo di Strada San Donato and Giovanni da Brescia inspected the body of one Paolo Rolandi, who died some time after being beaten, a witness stated that Paolo had been repeatedly beaten by Gerardo di Cento with the handle of

61 As will be seen in the 1302 autopsy on Azzolino Onesti, this was already contemplated in practice (see *infra*).

62 Cf. Agrimi, Crisciani, *Les consilia*, 34–36; Crisciani, “Consilia, responsi,” 270–271.

63 Münster, “La medicina legale in Bologna ai suoi albori,” 5.

64 Cf. *ibid.*, 6; on the development of trials in 13th-century Bologna, see Vallerani, *La giustizia pubblica*.

a sickle, to the point that “guts spew out of his rectum.” The doctors, however, declared that Paolo’s death was not caused by the beating. Since the sentence is not known we cannot assess if, in this case, the judge paid more attention to the eyewitness or to the expert assessment.⁶⁵

The selected doctors were called in to *videre et temptare* (to see and to touch) the body of the victim (wounded and/or killed): this is the constant and often only direct reference to the experts’ exam in the drafted reports. Although different for obvious reasons, these inspections were probably conducted in the same way as a general medical assessment, that is to say, with a ‘sensory’ inspection of the body (i.e., look and touch) as in the medical *practicae*. In rare cases, the investigations contain further information on the procedure. For example, in Bologna, a finger was used to measure the depth of a wound; in another context, in Manosque, this measurement was carried out with candles.⁶⁶

From the early 14th century onwards, investigations which bear witness to actual autopsies – in other words, the dissection of corpses and the opening of the body – begin to appear. This practice was probably an extraordinary event, one that was conducted more for epistemological reasons than in reaction to a resistance to dissections, and useful only if additional details were needed.⁶⁷ The earliest evidence of autopsies can be found in the public health sector: the chronicler Salimbene de Adam informs us in 1286 that, in some cities of Northern Italy, autopsies were conducted to understand the causes of an epidemic and in order to find a solution.⁶⁸

The first strictly legal autopsy dates back to 1302, with the case of the suspected poisoning of Azzolino Onesti, which was mentioned at the very beginning of this study.⁶⁹ The judge deemed it necessary to obtain further evidence. He ordered for Onesti’s body to be opened in order to find evidence for or to be able to refute the indictment. Among the doctors in charge of the investigation, as previously mentioned, was Bartolomeo da Varignana, a famous doctor of the Bologna *Studium*.⁷⁰ This is interesting, not only thanks to the anecdotal presence of a famous person, but also because it demonstrates that reference

65 “Exiebant budellas de culo.” Mazzoni Toselli, *Racconti storici*, 59–60.

66 See Münster, “La medicina legale in Bologna dai suoi albori,” 4–17; Shatzmiller, “The Jurisprudence,” 226–227.

67 On the ‘anthropological discomfort’ caused by dissections, see especially Park, “The Life”; Carlino, *La fabbrica*; cf. also Collard, “Ouvrir pour découvrir,” 183.

68 Salimbene de Adam, *Cronica*, II, 357–358. Cf. Park, “The Criminal,” 4–5.

69 See *supra*, note 1.

70 Bartolomeo da Varignana’s most recent profile can be found in Chandelier, *Avicenne*, 106–112. In 1313, Bartolomeo was called to examine the corpse of the emperor, who was suspected to have been poisoned; this was evidence of the reputation the Bolognese doctor, both as a medical therapist and as an expert.

was made to luminaries of the discipline at the time, who brought not only experience acquired in the field to the medical-legal practice, but also a theoretical background which, in specific cases, could inform the results of the exam and the drafting up of the investigations.⁷¹ The verdict was that Onesti had not died of poisoning; it was possible to reach this conclusion thanks to elaborate knowledge pertaining to the effects of toxic substances on the body. It comes as no surprise that some 14th-century Bolognese *magistri* who carried out investigations were experts on poisons, a field of expertise which garnered more and more interest in the late Middle Ages. In an investigation which took place in 1379, one of the experts involved was Cristoforo Onesti, a doctor of the *Studium*, and the author of *Problemata de venenis*.⁷²

Regarding the procedural aspect of an autopsy for judicial purposes, the most detailed description, probably to this day, is that of Pietro di Argellata: he was a doctor of the Bologna *Studium*, and a famous surgeon who in his main work, the *Chirurgia*, refers to autopsies he carried out on the body of Antipope Alexander v, who had died of suspected poisoning. His brief, first-person narrative describes a dissection for judicial purposes: Argellata had delegated the hands-on procedure to his assistants, and guided them throughout. Rather than describing the study of the signs of the corpse, he outlines the general dissecting procedure.⁷³

Most of the expert doctors in Bologna are unknown today, as they practiced without a university degree. However, their scientific competence (which was not regulated by statutory norms) allows us to draw some conclusions. Surgeons definitely brought a skill set that was essential for conducting investigations: their familiarity with wounds and their dexterity when dissecting were clear advantages. The natural philosophers (*physici*) were maybe more suitable for investigating cases of poisoning and, if from a university background, they would support the investigation with the prestige of their role and cultural knowledge.⁷⁴ Beyond their differences in specialization, it is difficult to see whether there was an evident reason for celebrated doctors or surgeons to take part in medical investigations. The famous names mentioned above, to which many others could be added, are counterbalanced by Taddeo Alderotti's request for an exemption from investigations, which he obtained, and by the

71 Cf. Chandelier, Nicoud, "Entre droit et médecine," 270–272.

72 Collard, "Secundum Artem," 170; for a biography of Onesti, see Zucchini, "Onesti."

73 Argellata, *Cirurgia*, v, tract. 12, chap. 3; cf. Medici, *Compendio*, 40–41; Singer, "A Study," 94–95.

74 Collard, "Secundum Artem," 170; cf. Simili, "Sui primordi," 44, on the case of a surgeon who, presented with a case of suspected poisoning, refused the role of expert doctor, as he believed this to be the domain of a *physicus*.

board of doctors of medicine, who in 1389 requested to not be considered as potential doctors for investigations, as many of them believed these activities to be inferior for their social status and intellect.⁷⁵ Yet despite the board's request, many *doctores* still featured on the list of experts after that date.⁷⁶

I do not believe that the desire for direct or indirect personal gain was solely responsible for this; maybe the participation in medical reports for trials also depends on individual and temporary motives; and these may include a different perception of the medical profession, which does not necessarily follow a binary separation between the theoretical medicine taught at the universities and the practical medicine performed on bodies of the sick or injured. Moreover, in this period the opening of corpses (a practice deemed exceptional) was done for autopsies on individuals belonging to important families (and in this case, famous doctors agreed to be involved).⁷⁷ The opening of corpses also obtained the status of a didactic and cognitive tool in the universities in the early 14th century.

For the most part, it is difficult to prove from surviving evidence that there was contact between these worlds, courts and medical knowledge, which we can assume to have been much closer than is often clearly demonstrable.⁷⁸ Those involved in the medical report of 1302, with whom I opened this article, offer a direct testimony in this sense of the collaboration between doctors, medical practitioners and surgeons. In that investigation, we find direct traces of the theoretical knowledge acquired in the *Studium*, which was interwoven with knowledge gained from the experience of practicing on the body. Doctors declared that “they knew with the senses through the anatomical investigation of the bowels,” concluding that

Azzolino did not die of poisoning; it was more likely and certainly an excess of blood that gathered in the large vein referred to as the *venae cavae*

75 On Alderotti's privilege of exemption, see Gaudenzi, “Gli antichi statuti”; on the medical *collegium's* request, see Ortalli, “La perizia medica,” 256–258.

76 Cf. Simili, “Tre caratteristiche inquisizioni”: in an inquisition hearing of 1359, a case of attempted poisoning, six experts who were all teachers at the *Studium* were called; see also Münster, “La medicina legale a Bologna nel Quattrocento,” 14.

77 See Park, “The Criminal,” 8–10.

78 “University medicine was not hermetically sealed off in a pedagogical ghetto; its professors took on other roles, interacted with local medical communities such as colleges of physicians, town and court physicians and surgeons, and were influenced by some of their attitudes and practices.” Maclean, *Logic, Signs*, 15. Similarly, although difficult to pinpoint, the likelihood of fruitful contacts between doctors and jurists, is not to be discredited, particularly in a context like the Bolognese.

and in the veins of the liver around it, which blocked the flow of the spirit in the whole body and consequently led to complete mortification, or in other words, the extinction of heat generated from within.⁷⁹

It is worth pointing out that, with implicit reference to the *scientia* of the authoritative physiological system, the adverb ‘certainly’ is used here, despite the fact that the language of reports like this is generally more tentative. The legal reflection (which we do not analyze in detail here) specifically touched upon the degree of certainty which could be attributed to the testimony of doctors – a theme connected to the highly debated issue of the degrees of certainty in medicine.⁸⁰ It should be noted however that the *ad maleficia* judge in Bologna at the time was Alberto da Gandino who, in his discussion of clues in the quest for truth in the *De maleficiis*, speaks of indubitable evidence as evidence which “for its sensory verifiability and logical consequentiality is considered to be a means of certain evidence.”⁸¹ The difficulty, from a procedural perspective, of identifying the degrees of certainty in evidence made it almost impossible to establish the “acquisition of full evidence and confirmed the central importance of a confession.”⁸² By contrast, for doctors, scientific certainty came from the rationalization and general acceptance of the *auctoritates* within a theoretical framework; specific and unique cases, therefore, were excluded.⁸³ According to medieval Scholasticism, *scientia* was defined as the maximum approximation to the truth (the ‘probable’); that very same truth which, in a legal framework, was the aim of the judicial order, at least ideally.⁸⁴

79 “Sensibiliter cognoverunt visceribus eius anathomice circumspectis”; “Predictum Açolinum ex veneno aliquo mortuum non fuisse, sed potius et certius ex multitudine sanguinis agregati circa venam magnam, que dicitur vena chilis et vena epatis propinquas eidem, unde prohibita fuit spiritus quia ipsum in totum corpus effluxio et facta caloris innati in toto mortificatio sive extincio.” Simili, “Bartolomeo da Varignana,” 7. On the vital heat, which leads to death when used up, see Duranti, “La morte,” 166–170.

80 See Ascheri, “Consilium sapientis”; Cavallar, “La benefundata sapientia.”

81 Albertus Gandinus, *Tractatus de maleficiis*, translated from Latin into Italian in Vallerani, *La giustizia pubblica*, 95. Italics mine.

82 Alessi, *Il processo penale*, 62.

83 On this, see Crisciani, “L’individuale”; ead., “Fatti”; Chandelier, Nicoud, “Entre droit et médecine,” 281.

84 See Grossi, *L’ordine giuridico*, 144–146, 166.

3.6 Anatomy and Dissection in University Medicine: from Taddeo Alderotti to Mondino Liuzzi's *Anothomia*

Meanwhile in Bologna, emblematic works dedicated to rational surgery were written and conceived, and autopsies were used in trials; the teaching of medicine was institutionalized at university.⁸⁵ The *doctores* who supported and followed the didactic and scientific activity of Taddeo Alderotti firmed up the connection between the arts (*artes*) and medicine, even from a doctrinal perspective, and developed a medical doctrine based on the comment on the *auctoritates*.

In his in-depth investigation into Italian doctors' reception of Avicenna's *Canon* to 1350, Joël Chandelier has stressed the consequences the *Canon* had on anatomical knowledge. The Bolognese *magistri* of the Alderotti school were the first *doctores* to comment on sections of the *Canon*, together with reading and commenting on the works that constituted the *Articella* and the Galen translations, the so-called "new Galen" canon.⁸⁶

Among the various notions and concepts that could be read in the *Canon*, it is worth mentioning that Avicenna, in his discussion of pharmacological experimentation on animals, underlined the pointlessness of this practice for the purpose of human therapeutics.⁸⁷ This was a novelty for medieval doctors, and it may have influenced an essential transition in the practice of anatomical dissection: the return, for the first time in the medieval period, to the use of the human body not only for specific purposes (devotional, funerary, trial-based) but for didactic and knowledge-related purposes – even if animals continued to be used. Dissection was a medical procedure in of itself. Even Averroes' *Colliget* – which was translated from the Arabic to the Latin in 1285 and conferred an experimental status similar to that of the pharmacopoeia to anatomy – was read by and known to Bolognese *magistri*.⁸⁸ The didactic role of the works by those *magistri* is well-documented, but the following needs to be highlighted: the connection of written texts to the formative moment was essential, and the approach towards the *auctoritates* cannot be fully understood without considering that the commentaries stemmed from didactic activities,

85 Cf. Tabarroni, "La nascita."

86 García-Ballester, "The New Galen"; on the Bolognese comments on the *Articella* texts, see Siraisi, *Taddeo Alderotti*; on those on the *Canon*, see Chandelier, *Avicenne*.

87 Avicenna, *Canon medicinae*, ii.I.2; cf. Jacquart, "La scolastica," 298–299; Maclean, *Logic, Signs*, 197; Chandelier, "Experience," 387.

88 Martorelli Vico, "La scolastica," 317; Mandressi, *Le regard*, 71–73.

and that the so-called ‘Salerno anatomies’ and the surgical procedures mentioned by William of Saliceto referred to teaching.⁸⁹

It is in the commentaries that the earliest examples of human dissections appear: more specifically, Taddeo Alderotti mentions them in his commentary on Hippocrates’ *Aforismi*, which dates back to the 1470s, and again in the commentary on the *Canon*, which dates back to circa 1289.⁹⁰ In both instances, Alderotti shows that he interprets dissection as an evidence for cases involving some doubts that the *auctoritates* cannot address, or which cause discrepancies between them. Taddeo used the expression ‘videre anathomiam’ (in a case referring to a pregnant woman, and another referring to testicles), indicating that direct anatomical knowledge acquired via the observation of a human body was required. A few years later, Pietro d’Abano gave evidence of dissections in Padua that he carried out for the purpose of verifying authoritative texts, and in the *De venenis* he mentioned a legal autopsy that he conducted in Padua.⁹¹

It was, however, thanks to Mondino Liuzzi’s famous *Anothomia* that human dissection obtained the role of a knowledge instrument to a certain extent. This work, which was completed in 1316 (and thus at a time when Liuzzi could not yet have been aware of the translation of the *De usu partium* by Niccolò da Reggio), is the first medieval piece of writing dedicated to the dissection of the human body, i.e. a text dedicated to anatomy by *sectio* of a human corpse rather than a monkey or pig.

References to autopsies and to earlier anatomical dissections demonstrate that anatomical dissections were already practiced. What was new, however, was the field in whose context the work was published and its intended readership, that is to say, university scholars and students, due to the fact that human dissection (*sectio*) had been introduced as a didactic practice. An even more interesting fact is that with Liuzzi, dissecting stopped being an individual practice and was executed in university classrooms. In the course of the 14th century, dissection became an official and promotional procedure which, in specific conditions, constituted an actual ritual regulated by norms and accessible also for a non-university audience.

As previously mentioned, Liuzzi makes reference to his pre-existing experience of dissecting, which we can assume he acquired not only in official

89 The didactic purpose is intrinsic to the heuristic practical-experimental process: see, for example, Gerolamo Capivaccio in Maclean, *Logic, Signs*, 197: “experiment is an instrumental doctrine by which we teach how to proceed from the known to the unknown.” On these topics, see Agrimi, Criscini, *Edocere medicos*, part. 201–203.

90 Siraisi, *Taddeo Alderotti*, 113; Chandelier, *Avicenne*, 424.

91 French, “De juvamentis,” 102–106; Park, “The Criminal,” 5.

dissections (of which we have no testimony for the early 14th century) but also in private or secret dissections, the type which historians often contrast with the public dissections which were carried out according to the provisions of the statutes at specific times of the year, and were open to the public (although many limitations applied).⁹² The term 'private' provides the sense of dissections carried out, either as an exercise or for research, in addition to the official and regulated dissections; but the term 'secret' also gives a sense of illegality, of the doctor's almost heroic attempt of defying the law in his quest for knowledge; the latter, at the beginning of the 14th century, would appear to be anachronistic.⁹³

Beyond the anthropological questions pertaining to the act of opening corpses, the introduction of dissections (*sectio*) in judicial autopsies and at universities shows that the practice was made lawful (even if only for a legitimizing purpose, i.e., justice or science). The actual problem, which we will touch upon very briefly here, occurred in the university context: how to find bodies 'suitable' for dissections. The legislations of the late medieval and early modern ages openly addressed this problem by providing a limited number of corpses for public dissections, usually of individuals who had been executed or foreigners, but they were only a small part of the set of didactic dissections that were performed.⁹⁴ Therefore, with the exception of official dissections for which the corpses were provided, the problem of finding corpses was a pressing one.⁹⁵ Extremely famous (and rightly so) was the trial of 1319 at Bologna against a group of medical students. What makes it particularly interesting is the exceptional evidence it provides for the years discussed in this article. The students were put on trial for exhuming the corpse of a man named Paxius, who had been sentenced to death by hanging and had been buried the very same day in the cemetery of the San Barnaba Church. An interrogation of the witnesses made it possible to reconstruct the events, in a crescendo that looks like a piece for the theater (but, more prosaically, aimed at finding specific facts).

Stage one: the witness deposition takes place at the cemetery. The first witness can confirm only that he *has seen* Paxius' body being taken to the burial spot and that he *has seen* that the burial spot was desecrated the following

92 In Bologna, this type of anatomical demonstration was regulated by the statutes of the *universitas* of Medicine in 1405. These are the first to reach us, but certainly not the first to have been written. See *Statuti delle Università*, 289–290.

93 See *supra*, note 5.

94 The bibliography for this is extensive; see Carlino, *La fabbrica*. Moreover, Liuzzi also refers to this in the opening of the *Anothomia*: Liuzzi, *Anothomia*, 98.

95 See Park, "The Criminal" and Carlino, *La fabbrica*.

day. The second witness *had seen* the coffin being carried to the cemetery, but not the moment of the burial: he knew nothing of the desecration, but added that he had and three others been contacted by a doctor, Mr. de Boateris, requesting that they bring him the body that had just been buried. The four people who had been contacted refused to do so. In the afternoon, the trial moved to the portico of the school at which Alberto (in all likelihood, *magister* Alberto Zancari), was teaching; the smuggled body was taken here.⁹⁶ Carlino da Bergamo, one of *magister* Alberto's servants (*familius*), attests to *having seen* a dead man in the school (the classrooms were frequently annexed to the teachers' houses); he said that the accused, and others he did not know, were huddled around the man "with razors, knives and other tools, and they were dissecting the dead man and doing other things that those who practice medical studies would do."⁹⁷ Although he did not recognize the corpse, Carlino claims to *having heard magister* Alberto's mother say that some of her son's scholars had had the body of a hanged man exhumed in order to "carry out a dissection."⁹⁸ One testimony moves even closer to the target: Nicola di Pietro, the custodian of the city's jail, attests to *having seen* the body "dissected and all cut up," and to having recognized the body as that of the hanged man, *Paxius*.⁹⁹ We do not know how the trial ended, but it is reasonable to assume that the students, and not their teacher, were found guilty. Even though the witnesses openly acknowledged that the corpse was needed for a dissection, the legal proceeding was carried out against them not because of the intended use of the body, but because the theft was sacrilegious; the procedural dossier, in its opening lines, stated that the accused had committed a sacrilege and violated a burial site.¹⁰⁰

Magister Alberto's (albeit indirect) involvement in this case and Liuzzi's autobiographical references to dissections he conducted previously (also by using bodies macerated in water) clearly indicate that these teachers had practiced the dissections.¹⁰¹ A common reference describes the *magister* in a scenographic and ceremonial set-up of the dissection in which he is standing

96 Zancari, a doctor of the *Studium*, famous for his work *De cautelis medicorum*, also carried out medical investigations. Münster, "La medicina legale in Bologna dai suoi albori," 12.

97 "Vidit [...] et alios quamplures quos non cognoscit, existentes super dictum corpus cum rasuris, et cultellis, et aliis artificiis et sparantes dictum hominem mortuum et alia facientes quae spectant ad artem medicorum." Mazzoni Toselli, *Racconti storici*, 120.

98 "Causa faciendi notomiam." *Ibid.*

99 "Quedam hominem mortuum, et sparatum, quod corpus est totum incisum." *Ibid.*

100 *Ibid.*, 117–119; cf. Carlino, *La fabbrica*, 202–204.

101 Liuzzi, *Anothomia*, 107: this was, however, a practice that Liuzzi chose not to use in the preparation of his work.

far away from the corpse, and concentrating on a book that is open in front of him. This picture derives from the norms set for public dissections, which were deemed solemn and ceremonial affairs. It also derives, as demonstrated by Andrea Carlino, from the iconographic representations of dissections in the frontispieces of early publications dedicated to the topic, and of Liuzzi's work, in particular.¹⁰² But, of course, these are only representations: they perpetuate a message, they represent an official and public dissection, but they do not cover the range of possible dissections. Moreover, these images date back to the second half of the 15th century and, therefore, cannot be considered as evidence of dissections from more than a century previously. In their writings, Taddeo Alderotti, Pietro d'Abano, Mondino Liuzzi and Gentile da Foligno, refer to dissections that were carried out to address any doubts (even authoritative doubts), before taking a position: whether or not they had held the razor to perform the dissection was irrelevant (but also, unproven); in any case, they did not consider themselves physically distant from the dissected body. In 1319 *magister* Alberto received a small number of students in his house; two centuries later, Berengario, in his *Commentaria*, stated that public dissections were in his opinion merely a piece of performance, because the real work of the anatomist took place behind closed doors, where he was surrounded by a select number of students, and it was a methodical and slow process.¹⁰³ As a consequence, the traditional revolutionary interpretation of the exceptional frontispiece of the *De humani corporis fabrica*, which shows Vesalius with his hand inside a corpse, partially loses its value.

Anothomia was the first known text written in a university setting that was dedicated to human dissections. Its creation implies not only the desire to study a technical procedure – which is what Liuzzi does – but also the (now openly-declared) idea that the anatomy of the human body can be understood in other ways than just via authoritative traditions and animal dissections.

Therefore, the insides of the human body take on a central role: their study is no longer the mere means to an end (e.g. a medical investigation), but they are also a directly observable and readable means in themselves. The famous reference to a procedure conducted “by a manual operation,” which Liuzzi claims to adopt, introduces the reader to a practical type of medicine which does not shun theoretical knowledge, but integrates it with observation and manipulation of the corpse.¹⁰⁴ This change is supported by the adoption of a

102 Carlino, *La fabbrica*.

103 Quoted in Park, “The Criminal,” 15.

104 Liuzzi, *Anothomia*, 96: “cognitionem partium corporis humani, quae ex anothomia insurgit, proposui tradere, non hic observans stilum altum, sed magis secundum manulem operationem.”

new descriptive system: Liuzzi essentially agreed with Galen's classification of the organs and identifies them in the three cavities of the body; his description of the corpse and the dissection process operates within this framework. He explains the "manual operation," that is, the separation of the organs and their constituent parts in order to make them "observable."¹⁰⁵ The softer parts of the corpse which are subject to the fastest deterioration can now be analyzed first, and it is then possible to gradually move on to the more solid parts.¹⁰⁶ This also entails a significant change in doctrine: the medical expert is not conducting the traditional head-to-toe (*de capite ad calcem*) description; instead, he analyzes the parts of the body in a topographic and hierarchical order, or in another order according to theoretical criteria. The four-stage process (attending first to the three main cavities of the body, and then to the extremities) informed the way in which dissections were conducted from that point onwards.¹⁰⁷ The dissection was divided into four stages even in the didactic practice: dissections took place over the course of four separate lessons. Guy de Chauliac described such lessons held in Bologna by Nicolò Bertuccio, one of Mondino's pupils and successors.¹⁰⁸ In his text, Liuzzi teaches the reader how to proceed, from the initial incision along the sternum to the extraction of the organs and, finally, the breaking of the bones. The brief practical instructions are accompanied by a description of the organs and their physiological functions, and it is these descriptions on which Liuzzi's focuses. In this sense, Liuzzi's work is not very different from that of his predecessors: he follows the interpretative grid for the observation of dead bodies that was provided by Giovanni d'Alessandria in his commentary on Galen's *De Sectis*. In other words, he looks at the number of the parts, their nature, their arrangement in the body, their size, shape and connections (and to this list, Liuzzi added purpose and function); then finally, he looks at the illnesses typical for each anatomical part.¹⁰⁹

105 Martorelli Vico, *La medicina*, 319.

106 Liuzzi, *Anothomia*, 110; *vide infra*, the following note.

107 Cf. French, "A Note," 463–467; Laurenza, *La ricerca*, 19–21; Mandressi, "Dividere per conoscere," 118–121.

108 The passage is well-known, but it is still worth mentioning: Chauliac referred to the anatomical dissection "secundum quod tractat Mundinus Bononiensis qui super hoc scripsit. Et ipsam fecit multis vicibus et magister meus Berthucius per hunc modum. Situato corpore mortuo in bancho, faciebat de ipso quatuor lecciones: in prima tractabantur membra nutritiva, qua cicius putribilia; in secunda membra spiritualia; in tercia membra animata; in quarta extremitates tractantur." Chauliac, *Inventarium*, 1, 24–25; cf. Siraisi, *Taddeo Alderotti*, 110–112 and Agrimi, Crisciani, *Edocere medicos*, 202–203.

109 See French, "A Note"; Jacquart, "La scolastica," 299. For the references to Galen by Liuzzi, who did not yet have access to the *De anatomicis administrationibus*, see French, *Dissection*, 37–39; see also Infusino, Win, O'Neill, "Mondino's Book."

Liuzzi mainly adhered to Galen's system, even though his work echoed Aristotelian biology and attempts of conciliation of the differences found between Aristotle and Galen which he made have read about in Avicenna.¹¹⁰ It is an undeniable fact that the observation of the corpse was carried out both by Liuzzi and his medieval successors first and foremost through the lens of authoritative texts (*auctoritates*), which steered the view of the anatomist into a specific direction. From the 14th century onwards, the opposite was the case (or at least the stated intent), i.e. it was proposed that direct observation could correct mistakes potentially generated by texts. The fact that Liuzzi falls into the former category and not the latter explains why history books have often deemed Liuzzi 'blind' when it comes to the dissected body.¹¹¹ Such 'accusation' has been strongly mitigated in recent times:¹¹² by putting into practice the most recent theories of his time, i.e. that medical knowledge should be based on both rational demonstration and practical experiment, Liuzzi and his contemporary colleagues started to recognize that dissections not only had an illustrative and didactic function, but also were a means to solve doubts and, in some cases, to contradict the *auctoritates*. For example, in a passage dedicated to the kidneys, Liuzzi stated that, rather than listening to what others said (*dicunt alii*) – and we assume that he was referring to the authoritative texts here – we should pay attention to his words, as “they are much more rational and in agreement with the senses.”¹¹³

In the *prologo*, Mondino directly refers to eyesight as the main means of learning about the sensory world: by introducing the differences between man and other animals, and in this case combining Aristotle and Galen in this way, he reminds us that man walks in an upright position in order to achieve his goal, that is, knowledge:

This is why men use the senses, eyesight in particular, as appears in the preface to [Aristotle's] *Metaphysics*: for this purpose the sight and the

110 The comparison between Galenism and Aristotelianism characterized the entire period in question. Jacquart, “La scolastica,” 284–289. With regard to Liuzzi's relationship with the two authoritative systems, the Aristotelian and Galenian, see Martorelli Vico, “La medicina.”

111 Cf. ‘invention of the anatomical gaze’ in Mandressi, *Le regard*. After all, Liuzzi's ‘blindness’ before the dissected body not only belonged to medieval man: for example, see the anecdote told by Santorio and subsequently referred to by Galilei, which is quoted in Maclean, *Logic, Signs*, 193.

112 See for example Martorelli Vico, “La medicina”; Mandressi, *Le regard*; Chandelier, *Avicenne*.

113 “Quia rationabilis est et sensui magis concordat.” Liuzzi, *Anothomia*, 224; see Martorelli Vico, “La medicina,” 319–330.

brain, contained in the head, had to be placed in such a position as to be able to learn various sensory modalities [...]. The need to place the head in the highest part of men was not for the brain, the ears, the mouth or the nose. Its main reason was the eyes.¹¹⁴

According to the Aristotelian philosophy, the feeling of *admiratio* (admiration) is directly connected to the act of seeing, and is the desire to know the causes of what we are observing, which is the foundation of philosophical and scientific knowledge.¹¹⁵ It was also the foundation that anatomists found in Galen (even when the Latin translation of the *De anatomicis administrationibus* was still not available).¹¹⁶

The identification of eyesight as the main tool of knowledge is not only of theoretical importance in Liuzzi's *Anothomia*: although it may seem to be obvious, the entire operation described by Liuzzi takes on cognitive meaning thanks to the fact that the student/reader can 'see' in the body what Liuzzi is describing (the verb *videre* often intersects with the verbs *apparere* or *manifestare*). The teacher invites the reader to *videre* rather than to stand on the sidelines, as is the case in the *fictio* of the texts. References to texts are frequent and scattered throughout Liuzzi's work. The procedure and the demonstration the observed transform the author into a 'witness': in the absence of a real corpse that is laid open in front of the reader, the author becomes the medium via the written text which describes "a probative regime based on sensory evidence," and offers the possibility of reproducing the action: Liuzzi's work certainly had a predominantly didactic purpose, but it introduced the essential elements of experimentation and empirical science.¹¹⁷ They aim to "see anatomy to perfection" or, to reference the 1319 report of that trial against medical students, to "see what there is to see in the human body":¹¹⁸ to see, and therefore to know. Anatomy, or the structure of the body and its parts, it

114 Liuzzi, *Anothomia*, 100, 102: "ad quod deserviant sensus, et maxime sensus visus, ut apparet in prooemio Methapsicae, et ideo in ipso visus deuit situari et cerebrum, et per continens caput situ tali ut posset maxime diversa sensibilia apprehendere [...]. Necessitas in creando caput superius in homine non fuit <propter> cerebrum neque propter aures neque propter os neque propter nares, sed propter oculos."

115 Spinosa, "Visione sensibile," 122.

116 On this, see Cunningham, *The Anatomical Renaissance*, which perhaps over-interprets the unambiguousness of religious meaning.

117 "Des stratégies de substitution s'imposent donc, qui consistent à inscrire dans les textes ce régime probatoire fondé sur l'évidence sensorielle." Mandressi, "De l'oeil," 105; cf. *ibid.*, 108–110.

118 "Anothomiam perfecte videre." Liuzzi, *Anothomia*, 186; "Videre quae videnda sunt in corpore hominum." Mazzoni Toselli, *Racconti storici*, 120.

must be seen to be known, and therefore settled into a theoretical framework provided by science.¹¹⁹ Knowledge derives from the autopsy in its literal sense: from seeing (*videre*) with one's own eyes.

3.7 Liuzzi's Legacy

Liuzzi's *Anothomia*'s importance is, first of all, established through his role as a witness to ongoing change, but also in the lasting influence of his work on the European medical landscape. Liuzzi took on the role of didactic *auctoritas* and helped 'legitimize' dissections, especially their actual practice. Levi Robert Lind – who highlighted Liuzzi's fallacy and influence – said once: “the history of anatomy [...] can be called the history of its liberation from the domination of a book: Mondino's!”¹²⁰

In 1925, Charles Singer put together a census of Liuzzi's work. He found twelve manuscripts from the 14th and 15th centuries and 48 printed works;¹²¹ Liuzzi's work was then translated into Italian, Flemish and French, and amended versions were published by several doctors in the 15th and 16th centuries.¹²² Since 1320, Liuzzi's work had been studied and annotated in Montpellier; in 1340, the first provisions pertaining to academic dissections were decreed, and in 1366, the *Anothomia* became the key reference text in the *Studium*;¹²³ in the second half of the century, the *Anothomia* was adopted even by the Faculty of Medicine in Paris; however, the first dissections for which we have a clear evidence date back to 1477.¹²⁴

It is a well-known fact that Liuzzi's teachings were continued by his former student, Niccolò Bertuccio, and Bertuccio taught Guy de Chauliac, who studied the didactic method *per anathoniam* and contributed to the popularization of the method in France, thus reconnecting it with the educated surgical tradition. Chauliac explicitly stated that there are two paths to follow for specific anatomical knowledge: the teachings of books *and* hands-on experience

119 Experiential 'facts' are of value only when they are placed within a theoretical framework, allowing us to grasp general *rationes* (reasons) from specific cases. See Crisciani, “Fatti, teorie,” 696–697.

120 Lind, *Studies*, 6.

121 The first printed edition (Pavia, 1478) is reproduced in *Anatomies*, [7]–[50]; for the different editions, see the introductory apparatus in Liuzzi, *Anothomia*; and Carlino, *La fabbrica*, 233.

122 Mandressi, “Métamorphoses,” 168–169.

123 Agrimi, Crisciani, *Edocere medicos*, 20; McVaugh, *Rational Surgery*, 71–72.

124 Park, “The Life,” 114–115, note 16.

on corpses.¹²⁵ Even the 24 images, of which only 18 survive today, of Guido da Vigevano's *Anothomia designata per figuras* (1345) are, according to modern critics, the source of direct, experiential knowledge acquired from the sectioning of the body; this is claimed despite the fact that Guido da Vigevano's book mentions the prohibition of opening corpses imposed by the Church.¹²⁶

At the same time, even *physica* medicine continued to question the type of knowledge extractable from dissections. In his commentary on Avicenna's *Canon*, Gentile da Foligno referred to the certainty of medical science and concluded that "anatomical knowledge, supported by dissections, can only be known with certainty through experience."¹²⁷ Gentile, who attributed a central and evidential role to anatomy, was occasionally critical in his *Additiones ad Mundinum*, and yet referred to Liuzzi as the "famous anatomist."¹²⁸ Therefore, in the debate on the degrees of certainty, experience seemed valid only in the field of anatomical dissection. From our point of view, this seems to agree with a substantial 'acceptance' of dissections and looking into corpses as a means of knowledge in the mid-14th century.

Throughout the 14th and 15th centuries, Liuzzi's lesson was constantly present in Bolognese medical thought and didactic practice. In 1405, public dissections were also regulated by the statutes of the *universitas* of medicine in Bologna;¹²⁹ this continued until public dissections took on the role of a *mise en scène* of the wonders of nature, especially in the second half of the 15th century. This is suggested by Girolamo Manfredi's prologue to the *Anothomia* (late 15th century), which he addressed to Giovanni II Bentivoglio, ruler of Bologna, who was very impressed with a public dissection (as he claims in the *factio* of the dedication).¹³⁰ Considered by Charles Singer the most up-to-date anatomical work prior to Berengario da Carpi, Manfredi's *Anothomia* is heavily indebted to Liuzzi's version. The debt towards Mondino is clear, even if not explicit, even in the *Anatomice* (1502) by the Padua professor Alessandro Benedetti, as has been brought to light by Giovanna Ferrari.¹³¹

125 "Anothomia inquiritur dupliciter. Uno modo per librorum doctrinam, qui modus licet sit utilis, non est tamen sufficiens ad enarrandum ea que solum sensibus cognoscuntur [...]. Alio modo per corporum mortuorum experientiam experimur, aut in corporibus noviter mortuis per decollationem vel suspensionem anathomiam." Chauliac, *Inventarium*, 24.

126 Mandressi, *Le regard*, 23–24; Laurenza, *La ricerca*, 26–27.

127 Ibid. On Gentile, who referred more to Avicenna than to Galen, and on the anatomy, see French, *Dissection*, 54 ff.; Jacquart, "La scolastica," 292; Chandelier, *Avicenne*, 422–430.

128 Ibid., 115, note 41: "Respondit Mondinus famosus anathomista in sua Anathomia."

129 *Statuti delle Università*, 289–290.

130 On Girolamo Manfredi and his anatomical work, see Singer, "A Study," 130–164 (edition) and Durante, *Mai sotto Saturno*.

131 Ferrari, *L'esperienza del passato*, 121–123.

In early 16th-century Bologna, works such as the *Liber anathomie corporis humani* (1502) by Gabriele Zerbi and the *Annotationes anatomicae* (1520) by Alessandro Achillini were published. But an essential role in the development of anatomical knowledge and, especially, anatomical thought was played by Jacopo Berengario da Carpi, who Gabriele Falloppia referred to as the first real restorer of anatomical knowledge.¹³²

Berengario, who began his medical training as a surgeon and thus following in the footsteps of his father, subsequently enrolled at university and obtained his academic titles in 1489, and was a professor of surgery at Bologna University from 1506 to 1526. His most famous work was the *De fractura calvae sive craneis*, which was published in 1518; this work focused solely on surgery. But for our main topic, anatomy, two other works are far more important and are closely connected with each other: the *Commentaria cum amplissimis additionibus super anatomia Mundini*, published in 1521, and the *Isagogae breves*, of 1522.

As the Latin title clearly states, the *Commentaria* is a commentary on, but also an updating of, Liuzzi's work.¹³³ Berengario showed an active interest in anatomy from a publishing perspective, and curated and corrected a re-publication of Liuzzi's text in 1514; in 1529 he was the publisher of Galen's anatomical treatises; but the most important publication was the *De anatomiacis administrationibus*.¹³⁴ Liuzzi revisited *Anothomia*, which had also been reviewed several times throughout the second half of the 15th century, and reveals Berengario's positive assessment of his Bolognese predecessor.¹³⁵ The corrected publication and the *Commentaria* were based on this assessment, and Berengario explicitly acknowledges Liuzzi (to whom Berengario refers as *optimus*) as the inaugurator of academic anatomical science. The fact that Liuzzi's work needed to be revised and edited did not diminish the foundational role that it had played. On the contrary, the dedication of a commentary to Liuzzi's *Anothomia* acknowledged its role as a didactic authoritative text (*auctoritas*). Corrections, revisions, criticism of previous authors are part of the historic and scientific method (at least, in the era before the scientific revolution): the debt Berengario owed to and declared in Liuzzi appears evident to me.

¹³² Mandressi, "Métamorphoses," 166.

¹³³ On the use of the anatomical commentary in Berengario, see French, "Berengario da Carpi," and Mandressi, "Métamorphoses." Even Vesalius' famous Bolognese lessons in 1540 were structured as a commentary on Liuzzi's *Anothomia*. Cf. Heseler, *Andreas Vesalius' First Public Anatomy*, 45.

¹³⁴ On anatomy in Galen's works, see French, *Dissection* and *supra*, note 28.

¹³⁵ See Mandressi, "Métamorphoses," 169.

In the *Commentaria* and the *Isagoge*, Berengario expresses his renowned epistemological program which he summarized in the famous formula *anatomia sensibilis*, which indicates more clearly than previously the role of sensory experience as a source of knowledge. Anatomical dissection was also becoming a step in the development of experimentation and research in the field – and in this sense, the innovation was more radical than had been the case for its predecessors. A famous passage in which Berengario opposes the statements of Rasis and Avicenna on the fetus' micturition in the final months of pregnancy categorically states: “and I wanted to see that through this experiment,” and then try to describe the various experiments on a non-born fetus with the aim of uncovering the truth of the matter.¹³⁶

From the early 16th century onwards, the study of anatomy shifted strongly towards a search for evidence that was provided first and foremost by the senses. The anatomists of the early Middle Ages had initiated this shift somewhat timidly, but it was Berengario and his peers who explicitly completed it. The value of the written word was not neglected, nor could it have been by a teacher of the *Studium*. But within this framework, the anatomical written work assumed the position of a secondary witness: derived from direct experience, it necessarily contained the devices and strategies that made the evidence it described trustworthy, and the procedures replicable for a more precise learning, as well as, potentially, for examinations conducted by others. We are, to some extent, witnessing the advent of the scientific methodology. Anatomical images, as is well known, are one way of transferring knowledge and evidence. Despite Guido da Vigevano's earlier work and the anatomical interest shown by 15th-century artists, it was thanks to Berengario that the full-page illustration developed from a mere iconographic legacy into an integral part of the treatise.¹³⁷ It was now possible to see what the anatomist had seen in the body; it became, therefore, a medium which enabled the reader to feel that he was almost directly witnessing the open corpse on the dissecting table.¹³⁸

3.8 Conclusions

Throughout the course of the 13th century, as funerary practices were transformed and changes of a spiritual nature were taking place (as attested to by

136 “Et ego volui videre istud per experientiam istam,” quoted in Mandressi, “De l'oeil,” 110.

137 Cf. Laurenza, “Anatomia”; id., *La ricerca*; Mandressi, *Le regard*, 95–106.

138 Cf. id., “De l'oeil,” 110.

the theological debates on corpses and the emergence of iconographic figures that represent the corpse in burials), a new epistemological approach towards the corpse came to the fore.¹³⁹ The different contexts I have presented (surgical, legal and medical-didactic) developed at the same time, and it seems plausible that they all influenced each other. In the background, on the one hand, there was a legal reflection on certain types of evidence and testimonies; on the other, there was an ever-growing focus on the epistemological dignity attributed to the sensory world and to a progressive faith in a physical explanation of the material world. The judicial use made more easily acceptable the doctor's gaze on and into the dead body. In this respect, the surgeons' experience was not merely confined to *manualis operatio* (hands-on operations); they were authors (*auctores*) of learned, academic writings which had a direct application in the medical field, rendering the practice of dissections (*sectio*) unproblematic. Medical and philosophical thought renewed the textual debate on sensory experiences and related topics, on medical education and on the medical gaze. Since Antiquity and throughout the Middle Ages, the knowledge of the physical world was based, first and foremost, on eyesight, due to the premise of a correspondence between "the physical form and the mental form" via the concept of *eidos*.¹⁴⁰ This was a theory of knowledge which, from Aristotle's *Metaphysica* passed, via Albertus Magnus, Thomas Aquinas and Roger Bacon, to the Middle Ages.¹⁴¹ The connections with the physiological theory on sight was another factor; this had arrived in medieval medicine via Galen, and culminated in the exaltation of optics as a discipline underpinning all sciences, as stated by Roger Bacon especially in the *Opus maius*.¹⁴² In the words of Thomas Aquinas, sight was the "most exploratory sense, as it is the least material of the senses."¹⁴³

By observing the signs (*signa*) on and within the body, doctors could glean information and knowledge about illnesses or, in the case of investigations, on the causes of death, and they were established both with the help of eyewitness accounts and the interpretation of the medical science (*per scientiam medicine*). However, the reference to 'seeing' is also important for other reasons: from a legal point of view, the witness who had seen an event unfold

139 In addition to Park "The Life" and ead., "The Criminal," see *Micrologus* 7 (1999); in particular, the essays by Vauchez, "Introduction," and Gregory, "Per una fenomenologia."

140 "tra forma fisica e figura mentale." Stabile, "Teoria della visione," 227–228.

141 See Spinoza, "Visione sensibile," 120–121.

142 See Jacquart, "L'observation," 62–63.

143 "Maxime cognoscitivus, quia est minus materialis." Thomae Aquinatis *Summae theologiae*, I, q. 84, a. 3; cf. Spinoza, "Visione sensibile," 131.

was the most faithful witness; the eyewitness assessed and, to a certain extent, confirmed the account of the facts (*historia*). Enlisting the expertise of doctors made it possible, according to the law, to establish the facts (*quaestio facti*), in other words, the “natural data independent from the legal world, to make assessments through rational evidence based on sensory knowledge.”¹⁴⁴ This was especially so in inquisitory cases, which developed in Bologna in the course of the 13th century. Here, the ‘fact’ existed independently from the law and needed to be known, not discussed in dialectic terms; and the ‘truth’ seen and reported by experts seems to have contributed to this factual horizon (today, one might use the term ‘objective’).¹⁴⁵ However, it is particularly in the interrogation of the witnesses that procedural law gave specific importance to the senses, obtained first and foremost through the eyes.¹⁴⁶

Doctors also ‘see,’ not only in their therapeutic activities, but also in the quest for knowledge, thus completing the rational demonstrative procedure typical for medicine characterized as a philosophical-theoretical science. Theoretical knowledge was implied, and was necessary, but knowledge began with the primary act of seeing as a sensory act of knowledge, i.e., learning about something from a sensory perspective led to experience; in other words, it created experts (*periti*). In the doctors’ thought it is also possible to see the need to characterize one’s activity in a professional sense, in this case attributing an indispensable role to experience: in the *Summa conservationis et curationis*, William of Saliceto wrote that knowledge of the fetus could only be obtained “through anatomy and the stories of the obstetricians,” in other words, through direct experience and the experience of ‘witnesses.’¹⁴⁷

From the 13th century onwards, the corpse began to open up, and not only metaphorically, but becoming visible and interpretable by those who knew how to probe it with new questions and procedures. There had, of course, always been corpses, and previous centuries had not been oblivious to them: they fearfully analyzed, manipulated, dismembered and asked questions about this

144 Vallerani, *La giustizia pubblica*, 75–111 (q. 76).

145 Ibid., 79–80. Cf. Chandelier, Nicoud, “Entre droit et médecine,” 267.

146 Vallerani, *La giustizia pubblica*, 94–95; cf. Mausen, “Ex scientia et arte sua,” 132–134 on the connection between witnesses and the senses for Bartolo da Sassoferrato and Baldo degli Ubaldi.

147 “Per anathomiam et narrationem obstetricum.” Guglielmo da Saliceto, *Summa Conservationis et curationis*, 1.178, quoted in McVaugh, *Rational Surgery*, 239. The analogy with the reflections of jurists on, for example, the expert value of women in issues pertaining to the sexual and reproductive domain is evident: see Ascheri, “Consilium sapientis,” 534, on a decretal by Gregory IX pertaining to this.

ambivalent object. What changed progressively was not so much the interest in corpses, but the medical – and not only medical – approach (i.e., the gaze). The practical and didactic needs, anatomical curiosity and the consequences of the epistemological reflection made a new approach possible, one which was intentionally aimed at understanding the secrets of and ‘transforming’ the dead body into an object of knowledge.

PART 2

The Uncertainties of the Anatomical Gaze



Dissection Techniques, Forensics and Anatomy in the 16th Century

Allen Shotwell

4.1 Introduction

By the 16th century, examinations of the human body were conducted for a wide range of purposes in the Latin west. These examinations can be divided into two broad categories – those performed to determine something about the specific body in question, often the cause of death but other facts as well, and those performed to teach and learn about anatomy, especially in the context of medical schools. The traditional narrative of dissection in the 16th century tends to separate the anatomical examinations from those performed for other purpose, but the two were not mutually exclusive.¹

Authors of anatomical texts often cited their experiences in legal and religious post mortems as sources of knowledge about the body, and there is also clear evidence that physicians and learned surgeons were called upon to examine bodies for legal purposes, such as determining the cause of death, even well before 1500. By the 16th century, the civil statutes of various Italian cities mandated that the experts who were summoned to bear witness on such matters have formal medical training. Those who examined bodies in a legal context would therefore likely have been exposed to the dissection techniques of the anatomists through the public demonstrations held at medical schools, and their experiences might have even extended to participation in private dissections as well, especially as the 16th century progressed.²

The educational background common to anatomists and to the physicians and surgeons performing forensic examinations included a shared knowledge of the techniques for examining corpses. These techniques were often sophisticated, extending beyond merely cutting a body open. Court records and similar documents related to the examinations of bodies in a legal context

1 Recent books on dissection in the 16th century include Carlino, *Books of the Body*; French, *Dissection*; Cunningham, *Anatomical Renaissance* and Mandressi, *Le regard de l'anatomiste*.

2 For an account of the role of physicians and surgeons in Italian cities from the 16th to the 18th century, see Pastore, *Il medico in tribunale*.

often lack details about those methods, and formal texts devoted to forensic examination did not begin to appear until the very end of the 16th century. However anatomical texts provided extensive accounts of the techniques for examining bodies. The details were especially explicit in the 16th century with the increased interest in anatomy and the rising number of disputes based on empirical evidence.

In this chapter, I provide an overview of the various techniques for examining bodies as described in the anatomical texts from roughly the first half of the 16th century, paying special attention to the connections to forensic investigations. Early 16th century works on anatomy contain information on both the techniques and the contexts in which bodies were examined because their authors wanted to emphasize the range of their experience, and that information can be used to draw conclusions about forensic methods more broadly.

4.2 Writing about Dissection Techniques

The number of printed works devoted to anatomy exploded in the 16th century with at least a dozen new titles appearing in print by 1550. These works are useful sources for studying the methods employed for examining bodies, but they take a variety of approaches to describing dissection. Historians of medicine have become increasingly aware of the variety of literary approaches to medical writing taken in the early modern period, especially the 16th and 17th centuries, which saw the appearance of observations, *centuriae*, collections of letters, learned treatises and a variety of other formats, each reflecting different intended readerships and purposes. The same is true of works about anatomy, which, between the late 15th and the middle of the 16th century, were written using a number of different strategies.³

Authors with strong humanist leanings, for example, often sought to abandon medieval approaches to anatomy, both Latin and Arab, and to emulate, or at least venerate, classical Greek authorities like Aristotle and Galen. The target of their scorn was often the 14th-century author, Mondino de' Liuzzi, whose text was a staple in the medical school curriculum. Various authors in the 16th century made explicit reference to their departure from Liuzzi's approach to writing about anatomy.

The humanist physician, Alessandro Benedetti, condemned the barbarous Latin and corruption of the Arabs at the beginning of his text, while the Spanish

3 For recent work on the types of medical writing existent in the early modern period, see Pomata, "Sharing Cases," 193–236, and Siraisi, *Communities of Learned Experience*.

physician, Andreas de Laguna noted that all anatomical authors before him had followed the “order of necessity,” (required by the practical constraints of dissection) while he proposed to follow a different order, what he dubbed the “order of nature,” the path that food through the body. The reference to an order dictated by the problems of dissection was a clear reference to Liuzzi who had explicitly identified “the order of necessity” as his guide to structuring his work. The staunch Galenist, Matteo Corti, on the other hand, chose to write a commentary on Liuzzi in which he vilified the medieval author who, according to Corti, was correct only when he repeated what Galen said.⁴

Some scholars were firmly planted in the tradition of the schools and embraced their medieval precursors including Liuzzi, although even within these traditions there was room for a variety of literary approaches, including commentaries, short dissection manuals, and massive, learned tomes. Some authors targeted students, seeking, in effect, to replace Liuzzi. Others adopted the perspective that no reader had any experience in dissection and therefore required explicit instructions on procedures. The early 16th-century work by Gabriele Zerbi, for example, was a massive book in the scholastic tradition, deliberately organized to begin with the parts of the body readily examined by dissection (largely the internal organs) and end with those examined in other ways (the bones, muscles and similar parts) in emulation of Liuzzi. Another massive text was the commentary on Liuzzi written by Berengario da Carpi, who praised his predecessor rather than condemning him as Corti had.⁵

Other anatomical authors followed other approaches, and each treated the details of the dissection process in his own way, sometimes in the form of instructions for the reader, sometimes as a passing comment, sometimes as a report on a specific occasion. While most anatomists referred to personal experiences with bodies, Berengario was one of the first to provide accounts of specific dissection procedures in the first person. A useful example is his discussion of the examination of the kidney. Twenty years before Berengario, Alessandro Benedetti had offered the following.

The kidneys are to be cut lengthwise and, when a probe has been inserted, the method which they are joined must be observed.⁶

4 Benedetti, *Anatomice*; Zerbi, *Liber anathomie corporis humani*, 1; de Laguna, *Anatomica methodus*, 6, “duae potissimum veniunt observandae methodi, altera quae naturae, altera quae disciplinae.” Corti, *Mundini anatomen commentarius*, 10.

5 Zerbi, *Liber anathomie corporis humani*; Berengario da Carpi, *Commentaria super anatomia Mundini*.

6 Translation from Lind, *Studies in Pre-Vesalian Anatomy*, 96.

Berengario's description of examining the kidney takes an entirely different approach.

I wished to see the anatomy of the kidneys of humans and pigs and other animals, and I proceeded in operating thus. I took a kidney and placed a syringe filled with hot water in the emulgent vein. And, wishing to see whether water strongly impelled into the emulgent vein entered into the 'pores of the urine', I discovered it did not.⁷

Berengario was clearly not describing how to examine the kidney, but rather how *he* had examined it. This sort of detail about a particular dissection procedure can be found throughout Berengario's text as well as the subsequent work of Nicolò Massa, Andreas Vesalius and many of the anatomists writing in the later decades of the 16th century.

Indeed, by the latter half of the 1530's, anatomical texts began to include separate, formalized instructions for specific dissection procedures. Earlier works on anatomy normally combined descriptions of dissection procedures and techniques with descriptions of the part of the body to which they applied, but this new trend separated them out into separate chapters or even whole books. An early example is Massa's book which included several chapters entitled "On the method of dissecting" where the procedure for examining a body part was elaborated on. Vesalius also included more than one "how to" chapter in the *Fabrica*, and the French physician, Charles Estienne, added an entire third book to his anatomical work devoted primarily to describing how to dissect the parts of the body whose properties he had previously described in the first two books.

The formal descriptions of how to dissect by Vesalius, Massa and Estienne involved a mix of instructions and first-person accounts of particular procedures. They often seemed to stem from the presumption that the reader had performed no dissections themselves and required instructions on how to do so. This was especially the case with Vesalius who made dramatic and controversial claims about Galen and about the structure of various parts of the body. Because Vesalius rested his assertions on his personal experience with dissection, the reactions to his claims often included criticism of his methods,

⁷ Berengario, *Commentary*, 178v–179r, "volui videre anatomiam renum hominis & porci & aliorum animalium & processu sic in operando. Accepi renes & posui siringam aqua calida plenam in vena emulgente: & volui videre an ex vena emulgente penetraret ad porrum uritidem aqua fortiter eam impellendo & inveni quae non."

and out of that approach grew a new generation of works in which criticisms of the techniques of Vesalius and others provide us with additional details about the methods used to examine bodies. In this category we might include Bartolomeo Eustachio and Realdo Colombo, both of whom criticized Vesalius and the methods he employed.

Taken together the various reports on the examination of the parts of a body in the 16th century demonstrated that an array of specialized techniques were employed. These techniques went well beyond the simple act of cutting open a corpse. Certain properties were difficult to see without special preparation, and some parts were hard to uncover or were damaged in the process of accessing other parts. A list of common techniques can be compiled from various sources in the 16th century and includes probing, inflation, insufflation, boiling, the use of strong lights (even lenses) and injections. In addition various observations properties of the body related to pathological conditions, like color, the existence of stones and calcification, etc. are identifiable.

Arguably, none of the techniques employed were new. All of them can be traced back in one form or another to medieval or classical precedents. Medieval anatomical writings from a variety of sources include evidence of the majority of the techniques I describe here, and the vast collection of anatomical writings by Galen were the inspiration many of them as well. What the 16th century brought was an increasing focus on explaining the methods, and, on occasion, the use of old techniques in new ways, a shift that enables us to provide detailed accounts of the procedures employed in examining bodies in a variety of contexts.

4.3 Anatomists and Dissections beyond Anatomy

Anatomical writing generally referred to a list of standard properties of the body that should be learned by examination. A student of anatomy should know the number, position, size, figure, relations, color, and hardness of each part. Although for most parts of the body these properties were generally accepted there were a few open for debate, and in the 16th century that debate involved dissection. A prime example is the internal structure of the kidney, described from a number of different perspectives in the 16th century and studied using inflation, injection and probes. Other examples include the existence (or non-existence) of the *rete mirabile* at the base of the brain and the synchronization of the pulse with the beating of the heart. In these and other cases, anatomists invoked evidence from the body as proof of their position,

but anatomical controversy was not the only problem that could be investigated in this way.⁸

Probably the most extensive use of the body as evidence involved pathological conditions. Color was an especially important aspect of this problem, but so was size and the existence of stones and blocked passageways. Anatomists often reported these properties along with their descriptions of healthy bodies and the techniques for examining them. For example Massa noted that while the spleen in healthy people is no more than half a foot long, its size could change with disease. “In those suffering from illness [...] I have seen it very large, descending lower and on this side and that, swollen and hard.”⁹ He also carefully noted that some kidney stones he had observed were lemon-colored, and that he sometimes found the color of bladder stones to be red. This was an important point because it meant that stone color and origin could not be related despite the association of humors with certain colors.¹⁰

Color was indeed a difficult property to categorize and warranted careful examination. It was the white and dense nature of the material found in bodies suffering from the *morbo gallico* that tipped Massa off about its connection to phlegm, while Benedetti commented on the color yellow associated with the king’s disease (jaundice), which might be the result of yellow bile and therefore associated with the gall bladder. When he made this connection, Benedetti was exploring a fundamental problem. He noted that “yellow” bile could actually be different colors so that Galen sometimes described it as pale or bluish like the herb, *isatis*. Even more importantly, he noted that the color of yellow bile changed entirely “in a cadaver.”¹¹

Examples like these make it clear that anatomical authors of the early 16th century examined bodies for a wide variety of purposes. The issues associated with disease were exceptionally prominent and were seen as a core topic of anatomy and part of its classical heritage. Benedetti explicitly noted the connection in the dedication of his text.

Early physicians observed that if anyone died of unknown diseases and they dissected cadavers they might discover the hidden origins of the diseases with equal advantage to the living. Galen was not ashamed to do

8 For an account of the kidney debates, see McVaugh, “Losing Ground,” 103–137. The debate about the pulse is described in Bylebyl, “Disputation and Description,” 223–245.

9 Massa, *Anathomiae*, 26r–26v, “sed in laborantibus egritudine lienosa, sive splentica, maximam vidi descendenterm inferius & hinc inde, tumidam & duram.”

10 Ibid., 30r.

11 Benedetti, *Anatomice*, 20v–21r.

the same thing with his ape when the cause of death was unknown, just as we have done in the case of the Gallic disease.¹²

He repeated the connection later in his text when he described a woman he dissected in order to discover the causes of the disease.¹³ Examining the bodies of the dead to determine the cause of their death was often an officially sanctioned procedure, possibly originating in public health responses to the plague. The state often kept records of the causes of death as way of identifying new outbreaks, and the reports made in Milan in the 15th century, for example, made it clear the bodies were actually examined since they included the location and properties of swellings found on the surface of the body.¹⁴

In the 16th century, the Spanish physician, Juan Tomás Porcell, performed extensive dissections of plague victims at the *Hospital de Nuestra Señora de Gracia* during an outbreak in Zaragoza in 1564. The *cocolizli* epidemic in Mexico in 1576 prompted other Spanish physicians to dissect the bodies of victims in an attempt to understand the disease and identify a cure. These 16th century examples were extensively documented, but they were far from the earliest cases of dissection for pathological work.¹⁵

Outside anatomical texts, for example, there are extensive references to dissections in the book written by the Florentine physician Antonio Benivieni. His *On the Hidden Causes of Disease*, a collection of case studies from the late 15th century included descriptions of some fifteen dissections performed to determine the cause of death for a variety of conditions.¹⁶ Both Benivieni and Massa also referred to performing dissections to disprove the diagnosis of other physicians, generally at the behest of surviving relatives but sometimes for their own purposes.

In the case of a man who could not retain food but consistently vomited it back out after a few hours, for example, Massa recorded that he was able to perform a dissection because there were no relatives to hinder the process. But when Benivieni wanted to confirm his diagnosis after another patient's death, the man's relatives would not let him cut open the body because of "some superstition or another."¹⁷

12 Translation from Lind, *Pre-Vesalian*, 82. For a description of the connection between anatomy and pathology in the early 16th century, see for example Weber, *Sensata veritas*.

13 Benedetti, *Anatomice*, 11r.

14 See Carmichael, "Epidemics and State Medicine," 221–247.

15 See Okholm, *Anatomy and Anatomists*, 171 and 205–210.

16 Benivieni, *De abditis*.

17 *Ibid.*, fol. 9v, "Sed nescio qua superstitione negantibus cognatis, voti compotes fieri nequivimus" and fol 18r.

In other cases, of course, the family was eager for the cause of death to be investigated, for example when foul play was suspected. This seems to be the case with the woman whose dissection was described by Vesalius in the *Fabrica*. He described the woman as having been dissected because her relatives thought she might have been poisoned. In other cases, a dissection may have been requested so that the family might be aware of possible chronic conditions or in order to pursue recompense from an incompetent medical practitioner.¹⁸

Bodies were also examined for evidence of their sainthood. As Katharine Park has documented, these examinations sometimes involving cutting open the body and could be performed by both learned physicians or by others. Berengario da Carpi participated in one such examination, of Elena Duglioli, a candidate for sainthood whose breasts continued to lactate after her death in 1520. Other operations on bodies were performed for other, ostensibly religious, purposes, such as caesarean deliveries performed when the mother was dead so that the fetus might be baptized. Charles Estienne provided detailed instructions concerning the methods to be employed in such cases in his work on anatomy and even went so far as to provide illustrations.¹⁹

The evidence from anatomical authors of the 16th century and from related work on disease shows that physicians and surgeons were concerned with much more than anatomy itself, and that they investigated their concerns in the bodies they acquired in a variety of contexts. What they sought was often not simply the presence or absence of a structure, but the interconnections, depth of openings and internal structures of complex organs and the properties, especially color, associated with health or disease. Such information had a range of applications and could also be employed to determine facts in legal cases, but some of it required more than a visual inspection to determine.

4.4 The Intersection of Anatomy and Forensics: Probes and Color

Of the most widely used techniques of dissection perhaps the most frequently described was the use of a probe. The probe allowed anatomists to explore interconnections in the body as well as the size and depth of openings and the internal structures of organs. Probing also had close connections to injection, a procedure with similar purposes. We tend to think of injection as involving

¹⁸ See Park, *Secrets of Women*, 175–176.

¹⁹ In addition to *Secrets*, see also Park, “The Death of Isabella Della Volpe,” 169–187 and Park, “The Criminal and the Saintly Body,” 1–33. For some discussion of Estienne’s images, see Talvacchia, *Taking Positions*, 160.

liquids, but early 16th-century accounts also described “injecting” air, a procedure with an obvious connection to the inflation of organs, which was also a widespread technique.²⁰ Probing with a quill, stylus, rod or even fingers had a long, and apparently continuous, history by the early 16th century, and it served both anatomical and forensic purposes.²¹

Although there were certain anatomical subjects commonly associated with probing, accounts of the procedure in anatomical texts varied by author. Benedetti and Estienne used probes for seeing the connections in the kidney, Achillini for the salival fonts, and Massa for several different cases.²² Vesalius described using a stylus for examining the kidney, the openings in the peritoneum leading to the testes, and the connection between the penis and the bladder, among other things, and he also included both probes and the reeds used for inflation in the illustration depicting dissection instruments in the *Fabrica*.²³

The accounts of forensic examinations from various sources make it clear that probing played an important role as well, especially in cases that involved the cause of death when death was delayed. The victim may have been injured by an accident or an attack but lived, even functioned fairly normally, for a period of time and then died later. The issue was then whether they died of their injuries or from some other cause, a question settled by consulting medical authorities. The physicians and surgeons consulted examined the body closely, sometimes by dissecting it, in order to settle the case.²⁴

In Venice by the 14th century, for example, every death required a post mortem examination. Head wounds required close examination below the skull

20 The history of injection is described in Cole, “The History of Anatomical Injections,” 285–343. Cole’s conception of injection, which he relates to later developments in the 17th century and beyond, differs substantially from my account of it as another aspect of probing.

21 Galen provided one of his most detailed descriptions of probes in his discussion of dissecting the brain in Galen, *On Anatomical Procedures*, Book IX. The Salernitan manuscripts advised using a quill to find the connections between the spleen and the stomach, between the spleen and the liver and between the bladder and the penis; see Corner, *Anatomical Texts of the Earlier Middle Ages*, 62, 64, and 66.

22 Benedetti, *Anatomice*, 21v. Estienne, *De dissectione partium*, 259. Achillini, *Annotationes*, 11r. Massa described probing the umbilical vein, 14r, the mesentery veins, 19v and the veins entering the kidney as well as the kidney itself, 28r–31v (Note that the pagination has an error in this section of Massa’s book. There are two pages labeled 28). He also made extensive use of probes in his dissection of the brain, 83v–87r. Examination of the kidney is explored in more detail in the next section of this chapter.

23 Vesalius, *De humani corporis fabrica*, 547–558. The instruments are displayed on 237. M indicates the probes and R the reeds used in inflation.

24 For the importance of wounds, see Ferragud, “Expert Examination of Wounds,” 109–132.

to determine if the underlying membranes, especially the *dura mater* where broken. The examination performed by Antonius de Mediolano of the body of a man who had received a severe blow to the head noted the bone was uncovered by the blow and the brain damaged.²⁵

The medical understanding of the nature of head wounds meant that the depth of the wound was key to the question of their lethality. In his book on head wounds, Berengario noted that in head wounds where the skull was damaged, the color of bones was important since healthy bones, ones still nourished by the body, had one color while dead bones had another. The distinction was important because it indicated whether or not a fragment of the skull was no longer connected to the nourishing membrane in the head, the *dura mater*.²⁶ From this perspective, Mediolano's conclusion could have relied on the color of the bone, if he was able to examine the body soon enough.

In another case, in Venice in the late 14th century, Henricus de Bel de Mondis discredited the examination of the surgeon Hendrigus de Tarvisio of the head wound of a nobleman caused by a slave who threw a stone at him. Like Berengario, Hendrigus based his conclusions on the color of the bone and the damage to the *dura mater*.²⁷

The depth of a wound to another part of the body beside the head was also important, but they lacked the chance to observe bone color to determine their severity. This was often true if a victim was stabbed since the depth of a stab wound was often seen as an indication of its severity or potential lethality. In another Venetian case, the surgeon identified a stab wound as the fatal one because it had penetrated the side and damaged the stomach. Determining the depth of these wounds was often a matter of probing. A physician might use his fingers as a guide, as was apparently the case in Venice, but probes could take many forms.²⁸

In Manosque, also in the 14th century, for example, wounds were apparently probed with wax candles. A report exists of a surgeon and a barber who were ordered to palpate a cadaver and who used small wax candles to do so. Other reports of examinations with candles also exist, and in one the wound in a breast was found to allow the candle to pass completely into the body and the depth of another wound to the head was reported based on candle probing.²⁹

25 Ruggiero, "Physicians and the State," 161.

26 Berengario da Carpi, *Libellum de calvaria sive cranii, cranei vel fractura*, 13r–16r. The book was first printed in 1517.

27 Ruggiero, "Physicians and the State," 163.

28 *Ibid.*, 162.

29 For the specific case of wax probes, see Shatzmiller, "The Jurisprudence of the Dead Body," 223–230.

Color and probing were also part of the anatomist's tool kit. The goals of the two kinds of examinations often overlapped, in that the same person often did the medical examination and the autopsy. Many anatomists served in civil roles. Nicolò Massa, for example, was an active part of the civic medical activities in Venice including examining the bodies of victims of an unknown pestilence at the behest of the authorities in 1535. As far as I know, there are no known associations with Massa and legal examinations, but his background and the background of other medical figures of Venice who were likely to have participated in such examinations were similar. Doubtless the use of probes for both anatomical study and forensic examination was common knowledge.³⁰

4.5 Conclusions

By the 16th century, the corpse was a source of knowledge in a wide variety of subjects. Cadavers were examined to determine the detailed intricacies of anatomy, but also to understand the hidden cause of disease, explore the sacred nature of candidates for sainthood, and determine important legal matters related to the cause of death. Other chapters in this volume point to additional topics associated with the body.

In many cases the people who searched for information from the body were the same: physicians and surgeons who dissected to learn anatomy, also dissected to determine the cause of death, settle issues of sainthood, and understand disease. They tended to reserve their most extensive descriptions of what they did when examining bodies for the writings about anatomy, but even in those account they made frequent mention of their encounters with corpses in other contexts and for other reasons.

What these authors did to extract evidence from the corpse, regardless of context, went well beyond slicing it open. Much of the body is messy and difficult to understand with a mere visual inspection. Various things affected its appearance, especially pathological conditions. The physicians and surgeons called upon to examine corpses employed a range of methods to determine what they wanted to know. Many of these methods were especially suited for determining anatomical information. Inflating the stomach, for example, was meant to provide information about its size and shape. Pumping air through the lungs, showed how they moved in life. In the 16th century, anatomists often

30 See Palmer, "Physicians and Surgeons," 451–460 and Palmer, "Nicolò Massa," 385–410.

noted that better lighting and even spectacles could help in seeing elusive structures.³¹

There were also techniques that had broader applications, such as the idea of probing for determining the size, depth and penetration of openings. Probes were used to explore the internal structure of the kidney, a difficult question that also prompted injection of both air and water in studying it. The same idea could be applied to wounds where the question of whether an opening passed all the way through the surface of the body might settle the cause of death. Even non-penetrating wounds warranted a study of their depth and size, and head wounds in particular called upon the medical man's extensive knowledge of the state of the body in sickness and health.

The connections between anatomical investigation and investigation for forensic purposes were therefore extensive, encompassing the specialized techniques of dissection. By the 16th century, accounts of these techniques were becoming widespread as authors of works on anatomy sought to emphasize their experience in dissection and instruct their readers in its methods. What they described coincided with the less detailed material found in reports on various forensic investigations, and it is clear that by the 16th century both anatomical and forensic examinations were general performed by people with the same training which they obtained in medical schools. By the end of the 16th century, forensic examination finally had their own learned text, published by Fortunato Fedele in 1598, that rivaled the scope of the books by anatomists.

³¹ Lighting and spectacles were mentioned in Massa, *Anathomiae*, 26v, 31v, and 90v.

Monstrous Exegesis: Opening Up Double Monsters in Early Modern Europe

Alan W.H. Bates

5.1 Monstrous Remains

The early modern fascination with the monstrous found expression in accounts of monstrous births in popular print, medical works and books of wonders.¹ These works describe in minute detail, verging on the morbid, the corpses of malformed children, in order to find anatomical proof for theoretical assumptions about their nature: first of all, were they human beings? If they were conjoined, how many people were they? How was it best to deal with them without the fear of making mistakes? The diverse monsters born to human mothers that were recorded in the 16th and 17th centuries differed greatly in appearance, but all were judged to be rare and significant happenings: a child born with wings instead of arms, the head of a dog, the claws of an eagle, two heads, ambiguous genitalia or absent limbs was an exceptional, special, extraordinary, or preternatural event, deemed worthy of communicating and preserving. Our present understanding of what made such births monstrous owes much to the seminal anthropological studies of Mary Douglas, who argued that the fear and fascination engendered by persons and creatures that did not fit within conventional boundaries made them monstrous. Hermaphrodites, chimeras, geese that grew on trees, bats (furred and flying), snakes (terrestrial and legless) and conjoined twins were ambiguous creations that strained the conceptual framework that made sense of the world: they were bridges between male and female, human and animal, single and twin, nature and the divine; uncategorizable because they had the exceptional quality of participating in two normally incompatible categories at once.² Such monsters were creatures of paradox – liminal beings that could be man and

1 On the history of monstrous births, see Céard, *La nature*; Wilson, *Signs* and Mittman and Dendle, *Monsters*.

2 The concept of twins as category violations originated in Mary Douglas's studies on purity and taboo (Douglas, *Implicit Meanings*) and was developed in respect of monstrous births by Park and Daston, "Unnatural Conceptions."

beast, male and female, two in one – and there was something aptly contradictory about how they were reported: they were special cases, unique in form and exclusive to a particular time and location, yet they were classified, categorized and incorporated into the order of things as necessary manifestations of divine Providence.

One way of coping with these sometimes frightening wonders was to force them to fit reassuringly into the natural order, and from the mid-16th century medics and other scholars made a sustained effort to systematize human monsters and tame their oddness, a strategy that reached its peak in the early-19th century with the elaborate taxonomy of monstrous births constructed by Isidore Geoffroy Saint-Hilaire (1805–61), the teratological equivalent of the classificatory system of Linnaeus.³ Another strategy was to accept monsters as inherently anomalous, incapable of being fitted into the usual categories, and so exclude them. By exaggerating the difference between normal and monstrous, transgressive individuals were marked out as a prelude to “separating, purifying, demarcating and punishing” them, thereby restoring the “natural” order.⁴ Neither of these strategies accounts for the treatment of human monstrous births, which were neither classified out of existence nor banished to obscurity (they were seldom harmed or concealed). Their importance, for many people who wanted to know their story and to see and touch for themselves, lay in their meaning, and the purpose of studying them was to reveal their message; a kind of monstrous exegesis.

As the word *monstrum*, derived from *monere*, to warn (also to instruct and to demonstrate), suggests, monsters were signs and portents in the classical world, a reading that was still current in 16th-century Europe, which regarded them as signs caused by God to appear at a time when, rightly understood, they would “declare the truth” to witnesses.⁵ Their rarity and strangeness made them well suited to their role as messengers: everybody wanted to see them, or speak about them, and discover their meaning. When they were exhibited, or, if they lived long enough, when they exhibited themselves, monsters transformed the strange and transgressive into something instructive, edifying, and, perhaps, remunerative.⁶

When students of monsters classified them according to their cause, the first cause could be nothing other than the will of God.⁷ Much of the 16th-century

3 Bates, “Good, Common”; Geoffroy Saint-Hilaire, *Histoire générale*. For later classifications, see Fisher, “Diploteratology.”

4 Douglas, *Purity and Danger*, 4.

5 Lilly, *Ballads*, 63–66; Razovsky, “Popular Hermeneutics.”

6 Remshardt, *Savage God*, 68.

7 Paré, *On Monsters*, 3.

monster literature treated monsters primarily as a means through which God spoke, and it aimed to expound their meaning. Two suppositions underpinned this objective: monsters had something to say of importance beyond their own, unique existence, and they must be rightly construed in order to disclose this message. A monstrous birth did not speak for itself: it was silent until properly interpreted. In effect, therefore, the interpretation *was* the message, and in order to reveal it the monster had to be read in context: where and when it was born, whether it lived and, if so, how it behaved were important, as was what the monster looked like, since its form both made it monstrous and conveyed its meaning. Those who wrote of monsters gathered evidence by questioning witnesses, studying previous accounts and, ideally, seeing for themselves. Their scrutiny might extend to the body's interior: double monsters (later known as Siamese or conjoined twins) were commonly opened up; despite their scarcity, they comprise the great majority of recorded infant autopsies from the early modern period (the term *autopsy*, meaning to see with one's own eyes, was not applied to post-mortem examinations before the late-17th century: prior to this the body was variously described as being "cut," "opened" or "ripped").⁸ Of ninety-seven double monsters identified in a survey of the European literature in the 16th and 17th centuries, nineteen were reported to have been autopsied, during a period when the bodies of normal neonates were seldom, if ever, opened, and when even interested physicians might see only two or three adult autopsies in a year.⁹

This chapter considers why these unusual autopsies were performed and how the findings were interpreted. The opening of the corpses of the double monsters, which was practiced in particular in the regions where autopsies were more widespread, had in fact aims that went beyond science to some extent. In any case, it was not done to determine the cause of death. Instead, it aimed primarily to identify a correlation between the behavior of the monster and its anatomy, perhaps more symbolic than real, and to understand whether that prodigious creature was one or two people: how should one behave when administering the baptism in this type of case?

5.2 Messages from the King of Glory

Examinations of monsters in the 16th century are among the earliest documented infant autopsies, but there was a very long history of interest in

⁸ Bates, "Good, Common."

⁹ Bates, *Emblematic Monsters*, 154, 215–286.

monsters prior to this, and the printed broadsides that began to appear in the early 1500s may have preserved for posterity the kind of examinations that had gone unrecorded until cheap printing allowed news and descriptions of monsters to be circulated widely. Broadsides and ballads told of monsters that were in some cases still to be seen; they often included striking woodcut illustrations, some of which were copied from earlier impressions or drawn to fit the text, though others seem to have been the work of eyewitnesses.¹⁰ Some of this material gained permanence and a wider readership by being incorporated into wonder books.¹¹ Broadsides urged readers to see and handle the monster for themselves if they could, but their descriptions and illustrations were sufficiently detailed to allow readers to understand how it should be interpreted even if they had not seen it.

Broadsides typically related the monster's message to contemporary civil or religious events. To take a well-known example, in 1523, Martin Luther (1483–1546) and Philip Melanchthon (1497–1560) published a pamphlet describing two monsters, a “pope-ass” and a “monk-calf,” whose appearance they claimed was symbolic of the errors of the Catholic Church.¹² The location and timing of the monsters was providential: the finding of the ass on the banks of the Tiber, and the calf's birth just as reformers were questioning Catholic faith and practice, justified their being seen as divine auguries against the Church of Rome. With this interpretation in mind, the reader could see from the illustrations that the calf resembled a monk in a cowl, and the ass a reformer's caricature of the pope (Figures 5.1 and 5.2).

Both monsters were shown alive and standing in a landscape – a convention in broadsides even if they were stillborn – and the text was styled as an eyewitness account, inviting the reader to believe that these monsters really had appeared recently, as the authors claimed. Since there is no corroborative evidence in either case, we cannot be sure whether Luther and Melanchthon interpreted actual monstrous births they had seen or heard about, or appropriated a genre popular at the period as a literary device the better to engage with the casual reader.¹³ Nor can we know if they expected readers to believe that divine intervention was occurring in the cause of Protestantism, or simply wanted to make dry theological tracts more appealing with some colorful

10 Bates, *Emblematic Monsters*, 46.

11 Bates, “Birth Defects.”

12 Melanchthon and Luther, *Deutung*. On the influence of this broadside, see Park and Daston, “Unnatural Conceptions,” 26–28.

13 On monsters in 16th-century Germany, see Spinks, *Monstrous Births*.



FIGURE 5.1
Martin Luther's monk-calf, allegedly born near
Freiburg on 8 December, 1522



FIGURE 5.2
The pope-ass found on the banks of the Tiber

examples. The illustration of the calf is consistent with the appearance of a stillborn animal, which suggests that someone, somewhere had seen it and thought it worth recording.¹⁴ If the broadside was a construction for the sake of Protestant propaganda, to attract readers who might not have purchased a less sensational tract, it shows that Luther and Melancthon expected that descriptions of monstrous births in which the reader was invited to follow the author's interpretation to discover their meaning would find a ready audience.

Another early-16th century monster that attracted considerable attention, the so-called monster of Ravenna, was described in several publications and illustrated in various forms. It was first reported as having been born in Florence, but was linked a few years later with the massacre that took place in Ravenna in 1512. Re-engravings altered its features quite considerably while retaining its basic form, a winged hermaphrodite with a horned head and bird's talons (Figure 5.3).¹⁵ Unlikely though it seems, this bizarre-looking monopod may have been inspired by an actual birth: modern teratologists have been able to offer retrospective diagnoses in terms of standard malformation syndromes.¹⁶ The engravings were probably produced to fit the text and must be interpreted in conjunction with it: for example, the phrase "arms like wings" was probably written to describe stunted limbs like those of a plucked chicken, but the monster was depicted with feathers like the wings of a large bird or even an angel. Like the angels, monsters were *sui generis*: the Ravenna monster's unique location, timing, and form were the keys to deciphering it, but these details varied according to whether authors presented it as a sign of the evils of the papacy or a portent of civil strife.¹⁷

We can see from these examples that early-16th century authors took inspiration from actual monsters and re-worked them in support of their particular message. Working out a monster's meaning engaged the reader's interest in a similar manner to the then fashionable emblem books, whose illustrations and complementary texts were meant to be interpreted together to disclose moral lessons.¹⁸ Monsters differed from emblems in that they were (at least purportedly) happenings at specific times and places rather than artistic constructs, but both required the viewer to bring his own understanding and information

14 Wilson, Fineman and Walton, "Of Monsters."

15 Gerlin, *Disputatio*, dates it at 1511. Holländer, *Wunder*, 314, 317–319, reproduces various illustrations from 1506 to 1514. Schenda, "Das Monstrum," 209–215, Céard, *La nature*, 154–155 and Daston and Park, *Wonders*, 177–179 discuss its history and iconography.

16 Wilson et al., "Of Monsters and Prodigies," 12; Martinez-Frias, "Another Way."

17 Niccoli, *Prophecy*, 35–65.

18 On emblems in the early modern period, see Bath, "Recent developments" and Manning, *The Emblem*; in relation to monsters, see Bates, *Emblematic Monsters*, 27–31.



FIGURE 5.3 The monster of Ravenna, as illustrated in *Batman's Doome*

to them in order to discern their message.¹⁹ The monk-calf represented the Catholic Church only if the reader was in accord with Luther's opinions: no one unsympathetic to the Protestant viewpoint could have countenanced this meaning; indeed, to Catholics, it symbolized the spoiled monastic career of the heresiarch himself.²⁰

Recent scholarship has highlighted the importance of religious opinions in the analysis of monsters: Julie Crawford described how they were recruited to promote Protestantism in England, and Christopher Carter considered the reformers' reading of extraordinary occurrences as signs of divine activity in the world.²¹ Crawford sees the monster in Protestantism as a "divine monstrence," an ingenious way of expressing divine immanence within a belief system that denied the sacramental Presence on the altar.²² English ballads treated monsters as signs from God and interpreted them in the context of Protestant theology: they were "tokens true and manifest," or "monstrous Message[s] sent from the King of Glorie" that the reader must "beh[o]ld with inward eyes" in order to see their true meaning.²³ To determine the meaning of a monster it was necessary to know its form, either first hand or through illustration and description, but its context, including the circumstances in which the monster had appeared and its actions, was also required for proper interpretation. The process can be compared to Biblical exegesis, which used context and theological perspectives to draw out the right meaning of a scriptural passage. While Bible commentators might differ over a passage's interpretation according to their own theological convictions, an accurate text was an essential foundation. The "text" of a monster was its exterior and interior form, and its context, where and when was it born, who its parents were, how (and if) it lived, and the political and religious circumstances attending it. This approach to monsters remained current until the mid-17th century, when there was a shift in emphasis from monsters as prodigies and portents towards a more philosophical interest in their causes and classification, but the new, more scientific way of seeing them still required the same basic information: whether monsters were considered as signs, portents, or medical curiosities, the starting point was the description of their form and context.²⁴ Natural philosophers did not invent the "case report" to present their observations but co-opted an existing format from earlier accounts of monsters as signs and wonders.

19 Russell, *Emblematic Studies*, 238.

20 The Franciscan Johann Nas's *Ecclesia militans* used many well-known German monsters of the time to symbolize the Lutheran heresy: Spinks, *Monstrous Births*.

21 Crawford, *Marvelous Protestantism*; Carter, "Meteors," 33.

22 Crawford, *Marvelous Protestantism*, 15.

23 Anonymous, *Monstrous Pig*; Mellys, *Monsterous Children*.

24 Daston and Park, *Wonders*, 208.

5.3 Double Monsters: Individuation and Ensoulment

Among the hundreds, perhaps thousands of monstrous births reported in the early modern period – their bibliography is at least as long as that on normal childbirth – double monsters predominate, accounting for over a third of all human monstrous births recorded. If we suppose their incidence was similar to the present-day, i.e., 1 in 50,000 births or fewer, we can estimate that some 5,000 double monsters were born between 1500 and 1700.²⁵ There are extant reports of about 2% of these, a select subgroup born near large centers of population, especially university towns, at times when political and religious tumult sharpened the appetite for unusual sights. We can only speculate on the fate of the lost majority who were objects of curiosity only in their own village, their bodies perhaps opened by local practitioners who lacked the wherewithal to publish their findings.

Double monsters still remain a staple of medical journals and the popular press and there was probably never a time when these rare duos did not attract the attention of scholars and public alike. All twins carry an inherent ambiguity and double monsters especially so, as they caused those who saw them to wonder if they were one person or two. The answer was not straightforward, and required the observer to consider the uncertain and complex relationship between the human body and soul, a problem that extended beyond monsters to all humankind. As Maaïke van der Lugt insightfully puts it: “the monster is conceptually useful, in the same way as other limit cases like the embryo or the cadaver, for thinking about the human person and the complex links between soul and body, form and matter.”²⁶

Individuality – the possession of distinctive traits as a human person – is not what was in doubt in the case of double monsters: whether they were two people or one is a question best covered by the term “individuation.” In mediaeval and early modern times, individuation was seldom discussed outside a theological context, and was closely linked to the Trinitarian understanding of God as three persons – Father, Son, and Holy Ghost – a doctrine essential to Catholics and most Reformed churches, which taught that the Persons of the Holy Trinity were united and yet distinct: the Son was not the Father, the Father was not the Holy Ghost, and the Holy Ghost was not the Son – yet all were God.²⁷ It was difficult to find suitable models of this doctrine in nature:

25 Based on an estimate for the total population of the Cisalpine Italian and Iberian peninsulae, the British Isles, Cisrhenish France, Transrhenish Germany and Scandinavia in the 16th century of around 40 million, and assuming a birthrate of 35/1000. For the reports of monstrous births, see Bates, *Emblematic Monsters*, 215–267.

26 van der Lugt, “L’humanité,” 159.

27 Thiel, *Early Modern Subject*, 18–19.

triple monsters were of the very last rarity, and when one with three faces did appear it was predictably seized on as an emblem of the Trinity, illustrated complete with a nimbus; it was said to work miracles, and vanished inexplicably from human view (stolen by curious hands?) before it could be buried (Figure 5.4).²⁸

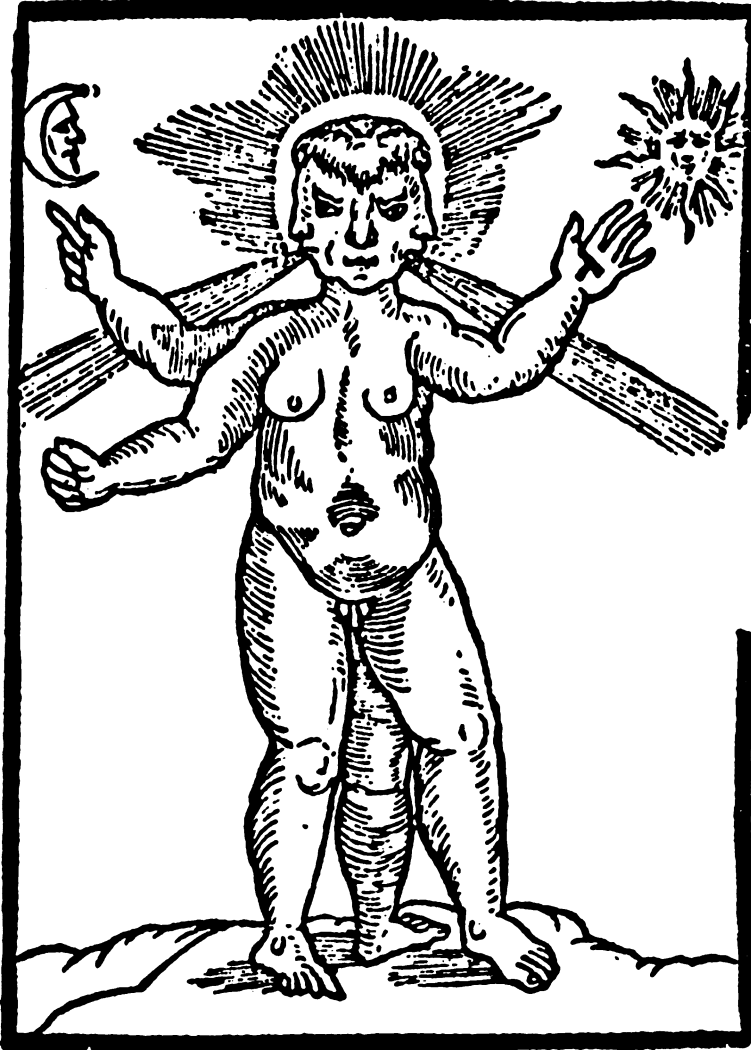


FIGURE 5.4 A triple monster, from *Batman's Doome*

²⁸ *Batman, Doome*, 406; Bates, *Emblematic Monsters*, 33.

The monstrous analogue of the two-natured Christ, who was both God and man, was the double monster. Like the Trinity, the divine hypostasis could be difficult to grasp correctly: Christ was acknowledged by most Christians as fully divine and fully human, but speculation on exactly how the two natures combined while remaining distinct proved an enduring source of heresy. A divine-human hybrid in the manner of the offspring of women impregnated by pagan deities was clearly not a suitable model. Ordinary Christians tried to simplify matters by relating the incarnation to examples from their everyday experience, but it was easy to slip into language that gave the impression that Christ was either a godlike man, or God masquerading as a man, rather than the true union that orthodoxy demanded.²⁹ Whether Christ had a human soul, and how this soul related to the Godhead, were legitimate but awkward questions for Protestant and Catholic theologians, who concurred that God did not simply assume the appearance of a man but took on human flesh as well as the soul that was inseparable from it. We need not concern ourselves further with these Christological speculations beyond noting that they set a precedent for an interpretation of double monsters based on the possibility of there being two vital principles within one body. That the interpretation of double monsters should be linked to Christology is not as far-fetched as it might first appear, since Christ was, in a particular sense, *the* prototypical monstrous birth, manifestation of God and transgressor of categories: born of a virgin, the Word made flesh, Creator and created, the bridge between human and divine, the sign that pointed to itself.³⁰ In Paul's account, in his first letter to the Corinthians, of his final vision of Jesus, the word *ektroma*, often translated as an abortion (in a self-deprecatory reference to Paul himself), meant "monster" in Hellenistic Greek and has been interpreted as a reference to Paul's distinctive vision of Christ as a "monstrous birth," a revelatory event of prophetic significance.³¹

What was the soul whose presence was in question? The early Church conceptualized human beings in Aristotelian terms as comprising form and matter, the form – the force responsible for matter's structure and organization – being identical with the soul.³² Though one might speak informally of the soul "in" the body, the body was not a transitory receptacle for the soul: a human being was a body-soul composite, and the notion of a disembodied soul, or a soulless

29 Loetz, *Dealings*.

30 On the incarnation compared with heroic accounts of monstrous births, see Williams, *Monsters*, 45, 251.

31 O'Grady, *Disciples*, 27. A literal translation of ἔσχατον δὲ πάντων ὡσπερὶ τῷ ἐκτρώματι ὡφθῆ καί μοι (1 Cor. 15.8) is "moreover, last of all, he appeared to me as a monstrous birth."

32 Aristotle, *Metaphysics*, 1037a6.

person, was incoherent.³³ Thomas Aquinas modified this classical position in an uneasy compromise presumably intended to square it with the Christian promise of eternal life: the soul *originated* as the form of the body, but was incorruptible and could subsist without it, capable of thought but unable to act or experience anything, in a kind of intellectual limbo unlikely to appeal to non-philosophers.³⁴ Aquinas's adaptation of Aristotle was also key to the early modern understanding of how the soul came to be in the fetus *in utero*. The matter of the body began to acquire structure from the moment of conception ("maternal impressions" could affect it: if, for example, the mother looked at a picture of a Moor when she conceived, a black-skinned child might result)³⁵ and the soul came to the body as it formed, perhaps at the time of "quicken- ing," when the baby's movements were first felt.³⁶ Uncertainty over whether unformed or malformed fetuses developed a human soul was reflected by the provision of conditional baptism (*si tu es homo, ego te baptizo*) for early miscarriages that were not recognizably human, or for what might have been animals born to human mothers.³⁷ If they were substantially distinct, double monsters were considered to possess two souls and baptized accordingly, while if they shared most structures they were treated as a single individual with extra appendages. The degree of bodily completeness was variable and not always evident from external inspection: the disposition of the organs could only be determined by opening the body, which might thus reveal the nature of the monster's soul(s).

5.4 Autopsies

Those who acquired the body of a monster not uncommonly decided to open it: for example, a child born at Ferrara on 19 March 1540, after a gestation of three months, "as big and well-formed as if he were four months old, having both feminine and masculine sexual organs, and two heads, the one of a male and the other of a female," was, after death, "made a present to one of the kyng of Spaynes lieutenants, gouverning that country, so he thought it good to have him ripped and his bellie opened, and intrailes seen, which being done [...] he

33 Aristotle, *De anima*, II, 1–3.

34 Aquinas, *Summa contra gentiles* II, 68; Kenny, *Aquinas*, 126.

35 Bondeson, *Cabinet*, 144; Shildrick, "Maternal Imagination."

36 Amerini, *Aquinas*, 52–78.

37 Phillip, *Rituale*, 27; Debreyne, *Moechialogie*, 126; Bates, "Sooterkin"; de Ceglia, "Woman."

had two livers, two milts, and but one heart.”³⁸ No report of the cutting up of a monster suggests it was a novel or outlandish proceeding, though the corpses of normally formed children were rarely opened and, if they were, it was done to determine their manner of death, which was never the issue for monsters. Some monsters were cut up by anatomists, but they were not *anatomized* in the same way as bodies in the anatomy theatre, nor could they be said to have been dissected in the sense of being cut into pieces. The slightly anachronistic “autopsy” therefore seems the most appropriate term, and is in keeping with the ethos of seeing for oneself that characterized examinations of monsters:

At length it dy'd, and was convey'd,
For Chyurgeons to Dissect,
And what Report thereof had said,
They found it in Effect³⁹

Before considering what autopsies on monstrous births involved, we first briefly survey different types of autopsy in general. Since at least the 13th century, when Pope Innocent III (1160–1216) stated that the Church did not oppose post-mortem examinations, Catholic Europe had tolerated, or even encouraged, forensic autopsies, some of which were performed on, or even by, clergy.⁴⁰ By the 16th century, forensic autopsies were being performed at the behest of criminal courts all over Continental Europe, but few infant autopsies took place in this context, and none of monsters.⁴¹ In Protestant England, the deaths of monstrous births did not fall under the purview of the Coroner, whose function it was to inquire into suspicious deaths.⁴²

Autopsies were also performed for medical purposes, often by surgeons who had treated the patient. The publication of Andreas Vesalius's (1514–64) *De humani corporis fabrica* in 1543 helped raise the confidence of medical men in making examinations of dead bodies, and in turn their interest in post-mortem appearances increased the demand for anatomical training in medical schools.⁴³ According to the anatomist Realdo Colombo (c. 1516–59), the purpose of anatomy demonstrations was to allow you to see the intestines,

38 “Aussi grand et bien formé, que s'il eust eu quatre mois accomplis, ayant le sexe feminin et masculin, et deux testes, l'une de masle, et l'autre de femelle.” Paré, *Monsters*, 19; Fenton, *Certaine Secrete*, ff. 98v–99r.

39 Anonymous, *Nature's Wonder?*

40 Weisz, “Papal Contribution”; Alston, “Attitude.”

41 King and Meehan, “A History,” 520.

42 Havard, *Detection*, 2.

43 Butterfield, *Origins*, viii.

ventricles, liver, spleen, bladder, kidney, heart, and lungs, and, after the head has been opened, the brain contained therein: this would have familiarized students with normal appearances and helped them identify changes due to disease.⁴⁴ The unschooled probably made little distinction between anatomical dissection and the autopsy but they were very different procedures: the former was often public, sometimes punitive, and always destructive, leaving perhaps nothing but a skeleton, and that on humiliating semi-public display, whereas the autopsy required much less cutting, no dismemberment, and was likely to have been over in minutes rather than the hours or days taken to anatomize a corpse in winter. In adults, a typical autopsy involved opening first the abdomen, then the thorax, and then possibly the skull, limbs and spine.⁴⁵ The organs were then inspected without necessarily removing them from the body cavities. In 1666 the English physician George Thomson described a quick autopsy technique for victims of plague, in this case a 15-year-old boy:

I girt up my self with all expedition, getting in readiness what Instruments were fitting [...]. [P]erforating the Membrane that involved all the rest, I made entrance into the lowest venter or Region [...] the small guts being much distended [...]. The *Vena Porta* and *Arteria Coeliaca* being divided, afforded only a serous liquor [...] the Parenchyma of the Liver being separated was very pallid [...]. The Spleen dissected [...] the Kidneys laid open [...] the Stomack, whose tender membranes [...] I [...] divided [...]. Having sufficiently lustrated and viewed the lower venter, I ascended to the middle, and making a divulsion of the sterne from the *Mediastinum*, I [...] searched [for blood] by cutting [the] Organ of respiration into many particles [...]. After this I disparted the descending Trunck of the *Cava*, and the Artery called *Aorta* [...] dissecting these pipes [...]. Next I seperated [sic] the Pericardium [...]. Then [...] opened the right cavity of the Heart [...].⁴⁶

As more medical men became familiar with these techniques they would have been better placed to examine the organs of monstrous births if the opportunity arose.

44 Colombo, *Anatomica*, 256. See also Cunningham, *Anatomical Renaissance*. On the history of the autopsy, see Klestinec, *Theaters*; Park, *Secrets*, and French, *Dissection*.

45 Bialowas, "Sekcja."

46 Thomson, *Loimotomia*, 72–78.

5.5 Opening Monstrous Bodies

Autopsies on monsters took place in regions where post-mortem examinations of adults were already accepted: in Italy, for example, monsters were being opened in the 1530s or even earlier, while in England neither diseased nor monstrous bodies were commonly opened until the latter part of the 17th century.⁴⁷ Most of the monsters examined were born in the vicinity of university towns or other urban centers where there were likely to be practitioners familiar with autopsies and printers to publish their findings. No interest was shown in the cause or mode of death; monsters were examined in order to correlate their anatomy with appearances observed during life and, in the case of double monsters, to help decide whether they had been one person or two.

The earliest recorded description of an autopsy performed on a monstrous birth dates from 1533, when “two daughters attached to each other” were born on the island of Hispaniola, a Spanish colony. They were baptized Johanna and Melchiora and lived for only eight days. The priest administered conditional baptism to the second twin, an effective response to any doubts in the minds of the parents or others as to whether they were one person or two. Opening the twins – the first recorded autopsy in the New World – was a formal occasion, modeled on the performances in European medical schools, with a surgeon, Joan Camacho, doing the cutting under the direction of two doctors of medicine, Hernando de Sepulveda and Rodrigo Navarro. Unlike a typical anatomical dissection, the twin’s history was sought first by asking their father whether they had shown any differences in behavior, as “[t]his will prove, even without having them cut open, that they were two separate persons and two souls.” The twins were joined at the belly: the only organ they shared was the liver, but the prosecutors noted a “groove” separating the “fused” livers, so it appeared that neither girl wanted any major organ. After the autopsy, they told the parents that Johanna and Melchiora were two when they “passed from this life to celestial glory where, God willing, we shall see them.”⁴⁸ The autopsy had confirmed the priest’s judgment that the children had separate souls, and vindicated his decision to baptize the second twin. The published report did not offer an opinion as to how the twins had formed, indeed the mechanism by which double monsters came into being was never overtly stated in accounts of autopsies, but the use of the word “fused” implied that they coalesced *in utero*, perhaps pressed together for want of space. Had Johanna and Melchiora been formed as one there would have been no reason for the liver to be grooved, an

47 Hanafi, *Monster*, 18–21.

48 Peña Chavarría and Shipley, “Siamese Twins.”

unusual detail that was presumably thought to be important because it supported the notion that the twins began as two children. Ensoulment then took place separately, and when the twins became fused their two souls were linked in a composite body. The alternative explanation that a single fetus had almost totally divided to form twins would have required the more radical hypothesis that the soul could divide and a fetus thus generate its own twin.

There was more at stake in this public autopsy than a single case about which there appears to have been little doubt, since the twins had behaved differently during life. It probably also served a didactic function, underlining the teachings on the individuality and immortality of the human soul laid down by the Fifth Lateran Council (1512–17) in the bull *Apostolici Regiminis* twenty years previously. The Hispaniola twins were the literal embodiment of that doctrine: it mattered that they were two children rather than one, because the Council had taught that there was a distinct, immortal soul for each person, and so each had to receive individual baptism: the soul is not only

the form of the human body [...] but also it is immortal and, corresponding to the number of bodies in which it is infused, is capable of being multiplied in individuals, is actually multiplied, and must be multiplied.⁴⁹

The Hispaniola autopsy is the earliest where the business of opening a monstrous birth was actually described. Two boys born in Württemberg in 1511 “sewn together like lovers” were said to have had viscera that were joined, though how this was ascertained is not mentioned: an autopsy is likely, but dead twins were often exhibited to large crowds and it is possible that, roughly handled, they simply fell apart (Figure 5.5).⁵⁰ The twins, which had one body but separate heads, were presented as an emblem of the Church: the human body was the most familiar of scriptural metaphors for the community of the faithful, and the death of a child with two heads invited reflection on the Reformation and the consequences of divided ecclesial headship.⁵¹

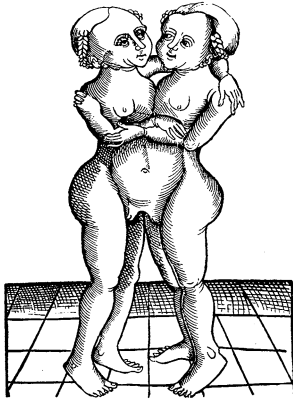
In 1536, in Florence, a more comprehensive examination, which must have required some skill in dissection, was performed on “two females joyned and stuck together, one toward the other in such a way that half the chest of one along with that of the other made up a single chest, & thus they formed two

49 “Humani corporis forma existat [...], verum et immortalis, et pro corporum, quibus infunditur, multitudine singulariter multiplicabilis, et multiplicata, et multiplicanda sit.” Heinrich Joseph Dominicus Denzinger, *Enchiridion symbolorum*, 1440/738, quoted in Constant, “A Reinterpretation.”

50 Anonymous, *Monstrificus puer*; Holländer, *Wunder*, 343.

51 Rm 12:4–5; 1 Cor 10:17; 1 Cor 12:12; Eph 5:23.

Monstrifera pater hic in districto diocesis Argentinensis ex pago wirttembergis prope Neufiler op-
pudam. ex paupere & in muliere sua membris et corporis inuicem unita. vinctura die Marti Anno vi-
decimo supra Millesimum & Quingentesimum in lucem editus exiit. Diu bene uerant.



Audiat hęc pater quisquis habet & facile inde
Cognosce protera quid tibi schemata uelut.
Sunt ista tunc quidem capite in quacumque manibus
Corporis at tunc hęc uiscera iuncta manent.
Si capta in puero hoc manifesti iuncta bimembri
Vixit in corpore inuicem cauda sua.
Sed capta in partu distraha immans furere
Corporis erantium caudam dira nece.
Hęc capta o capta. hęc capta in dilecto per vos
Incipite. sed nec dum cito finis erit.
Ecce hęc & hęc per vos discrimina cepit.
In brachia longi pedes in membra quę cauda sunt.
Hactenus affimiles fueratis amantibus at nunc
In capite & membris ut quę lauce parent.
Abi fatemur hęc tristes nos. Thronos corpora imago
Diffungi factae hęc colat quę vitos.
Quos uolens monstrum hoc. alio sub fide fuisse
Est non Germano progenitum orbis. mhaax.

SEBASTIANVS BRANT.

Burg Kreuzenstein.

FIGURE 5.5

A double monster born in Württemberg
in 1511

chests, one joining up with the other; their backs were not shared, but each had its own: it had its head turned directly towards one of the two chests, & on the other side, in the place of the face it had two ears that were joined one to the other, & they touched ..." When they were opened, the surgeon "found two hearts, two livers, & two lungs, & finally everything was doubled, just as for two bodies, but the windpipes, which began at the [level of the] heart, joynd up near the entrance to the throat and became one [...]"⁵² Structures such as the windpipe might have been described as dividing rather than joining up, but the writer was probably influenced by the preconception that double monsters began as two separate individuals and later joined or fused together, which was thought to be possible even if they were conceived on separate occasions.⁵³

52 "Erano due femmine congiunte & appiccate insieme l'una verso l'altra di maniera, che mezzo il petto dell'una insieme con quello dell'altra, facevano un petto solo, & così formavano due petti, l'uno rincontro l'altro, le schene non erano comuni, ma ciascuna haveva le sue di per se: haveva la testa volta al diritto dell'uno de' duoi petti, & dell'altro lato in luogo di volto haveva due orecchii, che si congiugnevano l'uno contra l'altro, & si toccavano [...]. Trovaronvisi due cuori, due fegati, & due polmoni, & finalmente ogni cosa doppia, come per due corpi, ma le canne, che si partivano da' cuori si congiugnevano circa alla fontanella della gola, & diventa[v]ano una." Varchi, "Sopra la generazione de'mostri," 98, translated in Hanafi, *Monster*, 18, 21.

53 See *The Correspondence of Henry Oldenburg*, 11, 277.

As in adults, the infant autopsy was less a voyage into the unknown than a tentative venture in search of what the operator expected to find. Anatomy provided the basic map to follow, and theories about monsters influenced the prosecutors' expectations. One widely held belief, that double monsters combined the characters of male and female, had many possible sources. In alchemy, the union of male and female was illustrated by the rebis or "two thing," a human figure with two heads, one male and one female, which symbolized the philosopher's stone, itself the union of body and spirit. The familiar image of the rebis resembled a double monster and was adapted to illustrate reports of them; for example, the Ravenna monster and the triple monster referred to earlier were depicted as hermaphrodites. Hermaphrodites of all sorts were seen as archetypally monstrous: the androgynous St. Wilgefortis, whose cult flourished in the 14th century, served as the patron saint of monsters. Both double monsters and hermaphrodites involved anomalies of quantity of substance, being formed, according to Aristotle, when the matter contributed by the mother's menstrual blood exceeded that required for a single child but did not suffice for two.⁵⁴ Finally, there was the Platonic notion of soulmates: male and female halves separated from an androgynous whole that had four arms, four legs and two faces. All of these traditions predisposed early modern viewers to expect a double monster to possess both male and female elements. Since conjoined twins are often born prematurely, with ambiguous external sexual characteristics (small fetuses possess a phallus and introitus), they were easily interpreted as hermaphrodites and were conventionally depicted with one set of male and one set of female genitalia to show that they combined the natures of both sexes. An autopsy on a double monster born at Oxford on 3 August 1552 may have been inspired by the expectation that the two parts should be of opposite sexes. The twins, joined at the navel, had been baptized John and Joanne despite the fact that both appeared to be female, and they were "opened" after death (Figure 5.6).⁵⁵ Their sex was the only finding of the examination to be mentioned, which suggests that the unexpected phenomenon of conjoined twins both of which appeared female led to a search for their uteruses to confirm that they were indeed both girls.

Reports of autopsies on monsters typically consisted of an inventory of viscera, for example "a double heart and lungs and a double liver with a single

54 DeVun, "Jesus."

55 Anonymous, *Thou shalte understande*. Annotations in the British Library copy record that one child died on 17 August and the other the following day; Batman, *Doomes*, 358.



FIGURE 5.6
A double monster born near Oxford in 1552

stomach and intestine,”⁵⁶ and may have involved no more than a quick cutting open to look at the major organs, especially the heart and liver, which in the case of two female children baptized near Angers in 1572 were the only viscera described.⁵⁷ The heart was particularly significant both medically – the disagreement between Aristotle and Galen concerning its role was a major theme in early modern medicine – and symbolically. It was the organ associated, in popular speech and culture, with human life and affections, and could stand by synecdoche for the whole person: devotions were paid to the hearts of Jesus and Mary, and if it were not possible to retrieve a whole corpse for burial then the heart alone sufficed.⁵⁸ The French surgeon and student of monstrous births Ambroise Paré (1510–90) used the possession of a common heart as evidence that a double monster was one person: “a woman who was six months pregnant gave birth to a child having two heads, two arms, and four legs, which I opened; and I found inside it only one heart (which monster is in my house and I keep it as a monstrous thing), as a result of which one can say that it is

56 “Cor duplex, pulmo item et jecur duplex, in ventre inferiori stomachus simplex, et simplicia intestina.” Schott, *Physica curiosa*, I, 662.

57 Paré, *Monsters*, 18; Liceti, *De Monstris*, 111.

58 Bradford, *Heart*.

only one child,” but Paré was inconsistent, describing a double monster with one head, four arms and four legs as “two twin children” despite the fact that René Ciret, a master barber-surgeon, had dissected it and found a single heart before presenting Paré with the body.⁵⁹

There was no consensus on the relation of the heart to individuation: Milanese surgeon Gabriel Cuneus was reluctant to call a double monster with a single heart two children; in 1544 he opened a monster with two heads, four arms and two legs and found:

a double wombe, all the intestines double [...] two livers, and so almost all the other partes, reserving the heart, which was single: the which moveth us to think [...] that Nature would haue created two, saving that by some defect she imperfected the whole.⁶⁰

Others, however, accepted that two children could share a heart: a monster born in the same year in Heidelberg on Whit Sunday “having two bodies closed by the belly part, two heads, foure hands and feete,” was christened John and Jerome and lived a day and a half, and although “when they were dead they found in the belly but one heart,” they were referred to as “two boyes.”⁶¹

5.6 “Life, Soul and Brains”

The sacrament of baptism was the basis of Christian identity and salvation was held to be imperiled, or even impossible, for those who died unbaptized. Luther, for example, wrote: “Baptism is no human plaything but is instituted by God himself. Moreover, it is solemnly and strictly commanded that we must be baptized or we shall not be saved.”⁶² The baptismal rite involved bodily immersion in water, triple pouring of water on the head or, in some sects, sprinkling. Adult converts could acquire the grace of baptism “by desire” if they were prevented from receiving the sacrament, but for infants the only means of salvation (except in the unusual case of martyrdom) was ritual baptism, which bestowed an indelible character and could not be repeated. The fate of

59 “Une femme grosse de six mois enfanta un enfant ayant deux testes, deux bras, et quatre jambes, lequel i’ouvry, et n’y trouvoy qu’un cœur, ie le garde en ma maison comme chose monstrueuse: partant l’on peut dire que ce n’estoit qu’un enfant.” Paré, *Monsters*, 13–16, 186.

60 Fenton, *Certaine secrete*, f. 36r–36v.

61 Anonymous, *Warhafftige*; Batman, *Doome*, 388.

62 Trigg, “Luther,” 312.

unbaptized children after death was controversial: perhaps they were consigned to limbo (which Dante placed as the outermost circle of hell) rather than lost altogether. They were not, however, members of the Church on Earth and might not be granted Christian burial, though pastorally-minded clergy used their discretion.⁶³ Despite their doctrinal differences, Catholics, Anglicans, and many Protestants saw it as an urgent necessity to baptize infants that were unlikely to survive.

Since the 13th century, quodlibets had addressed the question of whether double monsters should be baptized twice.⁶⁴ Catholic confessors manuals also discussed the problem of monsters, and one solution was to baptize one twin absolutely and the other *sub condicione* – which was documented as having been done in several cases.⁶⁵ If the minister lacked the theological nous for such niceties (in cases of urgency, any layperson, even if not themselves baptized, could administer the sacrament) it sufficed to baptize each twin separately: if they were subsequently judged to be only one child the second baptism would be understood to have been superfluous.

Given the ready solutions available in practice, the concern expressed over the baptism of monsters was probably more exemplary than practical. Baptism was governed by canon rather than civil law, but one might draw an analogy with the criminal trials of animals that took place during the mediæval period.⁶⁶ The cases themselves were of little practical importance to the participants (except of course the animals) but arguing them out offered an opportunity to demonstrate some important general principals about the law, such as accountability irrespective of understanding or moral culpability. Likewise, discussions about the baptism of double monsters highlighted the norms that all human beings were to be admitted to the sacrament, ideally as infants, and only once. The *Rituale Romanum* recommended that the ordinary baptized a monster – a child with two faces born in Bologna in 1514 was baptized by the Cardinal himself in the cathedral – thus providing a memorable public demonstration of the proper administration of the sacrament.⁶⁷

Demonstrations were necessary because the baptismal rite, which had united Christians since the 1st century, had become divisive when reformers in the early-16th century began to deny the efficacy of paedobaptism and insist on the rebaptism of adult believers. Lutherans, Reformed Protestants and Catholics

63 Anonymous, *Strange Newes*.

64 van der Lugt, "L'humanité."

65 Flores de la Flor, "La problemática"; Bates, *Emblematic Monsters*, 144, 154.

66 Evans, *Criminal Prosecution*.

67 Schott, *Physica curiosa*, I, 675.

alike opposed the so-called Anabaptists (“rebaptizers”) and infant baptism became a benchmark of orthopraxis. Monsters made useful examples: conditional baptism of a child whose life, humanness, or individuation was uncertain showed the proper zeal for administering the sacrament to all infants, and conditionally baptizing one half of a double monster avoided any suggestion that rebaptism was ever acceptable, even in the most extreme circumstances. The didactic agenda behind the exemplary baptisms of monsters did not preclude genuine consideration for their salvation, but the failure in many cases for those in authority to accord them the temporal benefits of their Christian initiation suggests that the primary consideration was to make a theological point. Concern for the monsters themselves was scarcely in evidence, since in spite of the Christian obligation to give all baptized persons a decent burial, and the culpability of anyone who bought or sold a body and “kept it from the grave,” public exhibition of the bodies of monsters was tolerated by clergy and secular authorities alike, who sometimes went so far as to add the preserved bodies to their own private collections.⁶⁸

The baptism of double monsters also reveals something of the early modern understanding of individuation. A second baptism obviously presupposed that two souls were present in one body and, in practice, it was only double monsters with two heads that were baptized twice.⁶⁹ This was probably partly due to the European Catholic and Protestant tradition of baptizing by pouring water upon the head (instituted for health reasons in temperate climates), although differences in behavior between the two parts of a double monster were regarded as the surest indication that they were two individuals, and these would have been observable only in those with two heads. Baptism did not depend upon the configuration of the viscera or the supposed localization of the soul (interest in which would come later); it was transformative of the “heart” in a metaphorical rather than a fleshly sense.⁷⁰ The Lutheran Salomon Deyling (1677–1755) wrote that double monsters should be baptized twice “if it plainly appears” that they have two souls; for instance if, “one body sleeps, and the other is awake, one smiles and is pleased, the other sheds tears and is offended.”⁷¹ No medical examination was needed to make such a judgment: in the 17th century a merchant in Ostend wrote to a friend about a double monster he had seen: “that they are distinct in life, soul and brains appear plainly from the actions which they have.”⁷²

68 Bedford, *Strange Birth*, 13; Bates, *Emblematic Monsters*, 148.

69 Geoffroy Saint-Hilaire, quoted in Taylor, *Medical Jurisprudence*, 604.

70 Ek 36:25–6; Rm 2:29.

71 Gilbert, *Catholic Doctrine*, 111, p. 65.

72 Anonymous, *Letter from an Eminent Merchant in Ostend* [...], n.p.

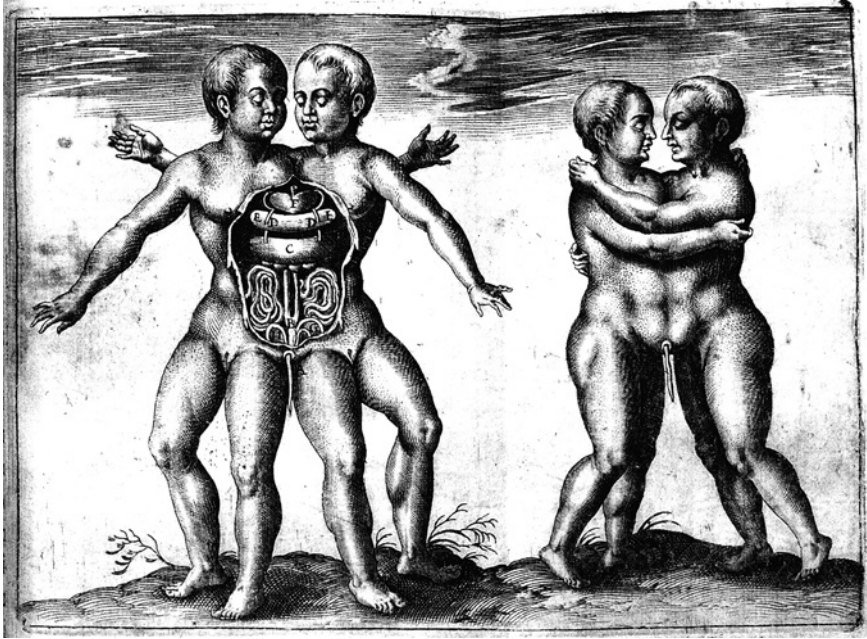


FIGURE 5.7 The findings in Jean Riolan's autopsy of a double monster in 1605

5.7 "I Desired an Autopsy"

The physician John Riolan the Younger's (c. 1580–1657) doctoral thesis *De monstro nato Lutetiae*, published in 1605, was seen by Dudley Wilson as an early effort "towards a more scientific view of the monstrous birth," partly on the grounds of Riolan's detailed and expensively produced illustrations (Figure 5.7).⁷³ This autopsy was performed ostensibly to answer the question of whether a double monster was one person or two, though Riolan's preferred evidence for their having had separate souls was that they had differed in temperament. On the basis of this, it had already been decided that they were two children, and the disposition of their organs, including a shared heart, did nothing to change matters. The illustrations for Riolan's thesis, though more detailed than earlier woodcuts, followed the traditional pattern of showing the twins alive, somewhat older than their years and standing in a landscape: illustrators used to drawing or engraving living children probably found it easier to show monsters in this way, especially when working from a description of something they had not seen. Riolan's examination was probably little more

⁷³ Riolan, *De monstro*; Wilson, *Signs*, 101–104.

detailed than those of the 16th century – the engraving shows only the major organs that had long been mentioned in accounts of such autopsies – though this was the first time the autopsy of a double monster had been illustrated in a schematized form with the viscera in a mirror-image arrangement, a far more orderly sight than would have met the eyes of those who witnessed the evisceration, however carefully the guts were arranged afterwards. Presented in this way, the dissected monster, its two halves artfully displayed to show their complementarity, demonstrated Riolan's talent for anatomical examination in difficult circumstances, where published works could not be relied on for guidance. Like reports of the surgical separation of conjoined twins in the 20th century, the thesis was concerned as much with the skill of the doctor as with the twins themselves.⁷⁴

Another revealing glimpse of the examination of a double monster, from an unusual artistic perspective, is provided by an oil painting by the Dutch master Everard Crynsz van der Maes (1577–1656) of twins born in the Low Countries in 1628 (Figure 5.8). The canvas, painted in 1630, shows a composite of successive stages of prosection: the dead children lying in their crib, the eviscerated corpse of one child after their posthumous separation, their heart, liver and other viscera pinned out on boards for dissection, and the skeleton showing how they were joined.⁷⁵ The reality cannot have been so straightforward, as the joined intact skeletons are at odds with the separated, eviscerated children. Possibly the skeleton was that of another pair of twins entirely. The fresh viscera are realistically painted, displayed with a care that suggests interest in the monstrous anatomy was moving beyond simply counting organs.

In the later 17th century a new medium for more detailed descriptions of monstrous births appeared in the form of scholarly periodicals, the earliest of which were the *Journal des Sçavans*, the *Philosophical Transactions* of the Royal Society (both of which appeared in 1665) and *Miscellanea curiosa* of the Academia Naturae Curiosorum (1670). These offered relatively rapid publication and could include finely engraved images.⁷⁶ A significant proportion of the members of these learned societies, and of the contributors to their journals, were medical men, and accounts of monstrous births in their journals typically included long, well-illustrated anatomical descriptions. A double monster born in Prussia, for example, could now be read about all over Europe within

74 Loughlin, "Spectacle."

75 Haneveld, "Een Nederlands."

76 *Miscellanea curiosa* includes the earliest account of the surgical separation of a double monster, in 1689: Konig, "Gemelli."



FIGURE 5.8 Everard Crynssz van der Maes. Conjoined twins born in the Low Countries in 1628 (detail)

a few months by scholars unlikely to have seen it for themselves.⁷⁷ These periodicals were often bound in volumes for learned institutions or private libraries, thus creating a scholarly archive for the cognoscenti, a virtual equivalent of the dried bodies of monsters that “important” people kept in their cabinets of curiosity.⁷⁸

Those who wrote of monstrous births in periodicals employed a format that characteristically consisted of history, description, illustration and interpretation, a development of the traditional manner of relating monstrous births in broadsides.⁷⁹ Typical of the description given in this type of account is that of a double monster said to have been born in Vienna in March 1664:

It had two heads, but joined in one, the crania still distinct; all the organs of the head were double, with two ventricles, all the membranes, veins and arteries doubled, two nerve origins, two tongues, two mouths, four eyes, two noses together, except for the ears, of which there were only two. Two arms, neck, thorax and chest and all their organs were simple, and the heart likewise, but big [...] there was one stomach and one small intestine. The body was all one until the lumbar region, where it divided

77 Vollgnad, “De monstroso.”

78 Conforti, “Illustrating Pathologies.”

79 Bates, “Good, Common.”

into two again with two spines [...] and the large intestine duplicated [...]. Four kidneys, two uteri [...] two bladders [...].⁸⁰

A description of an English monster born near Salisbury on 26 October 1664 that found its way into the first number of the *Journal des Sçavans*, along with some of the correspondence between those who had seen it, reveals that baptism was still a concern for those involved with monstrous births:

They pondered for a long time how to baptise this creature, but at length they decided that it was double, and they baptised it with the names of Martha and Mary. It took nourishment from both heads [...]. One of the two faces was much more cheerful than the other. This monster lived for about two days. Martha, who had always appeared less lively than Mary, died first, and Mary followed after a quarter of an hour. Both were opened by a medical man, who found the heads and chests all perfect, but not so the belly. The intestines were joined as far as the ductus communis, and they had one caecum, one bladder and one uterus. But they had two livers, two spleens and two stomachs.⁸¹

Like the Vienna monster, it was preserved by “careful” embalming. But whose was the decision to dissect? Several accounts imply that physicians or anatomists were keen to perform autopsies on monsters (“I desired an autopsy”),⁸² perhaps motivated by a mixture of curiosity and the prospect of attention from scholars or the public. In general, however, they did not proceed without the

80 “Capita habebat duo, sed in unum concretam, tamen cranio interdistincta, omniaque capitibus organa duplicia fuerunt, sic duplices ventriculi, omnes membranae venae et arteriae duplices, duplices nervorum origines, duae linguae, duo ora, quatuor oculi, duplex concretus nasus, exceptis auribus, qui binae tantum erant, brachia duo, collum, thorax pectus eorumque organa omnia fuerunt simplicia, sed crassiora [...]. Ventriculus erat unus, una cum intestinis tenuibus, corpus totum erat continuum usque ad regionem lumbarem, ubi se dividebat in duo faciebatque ex uno ramo duas spinas dorsi, [...] intestina crassa duplicia, [...] quatuor renes, duo uteri [...], duo vesicae [...]” Greisel, “Anatome.”

81 “On fut long-temps en peine comment on devoit baptiser cette creature, mais enfin, comme on iugea qu’elle estoit double, on luy donna au baptesme les noms de Marthe et Marie. Elle prenoit la nourriture par les deux testes [...]. Des deux visages de ce composé, l’un estoit beaucoup plus gay que l’autre. Ce monstre n’a vecu qu’environ deux iours. Mathe qui avoit touiours paru moins vive que Marie, mourut la premiere, et Marie un quart d’heure apres. L’une et l’autre fut ouverte par un Medecin, qui trouva les deux testes et les deux poitrines tres-parfaites: mais le ventre n’estoit pas de mesme: les entrailles s’unissant au *ductus communis*, et n’y ayant qu’un *intestinum caecum*, une vessie et une matrice. Mais il y avoit deux foies, deux rates, et deux estomachs.” Anonymous, “Extrait.”

82 Waldschmidt, “Monstrum.”

consent of the parents, and respected refusals. In 1697, the British physician Edward Tyson (1651–1708) managed to dissect the head of a malformed infant but “had not an opportunity of fully satisfying myself” because the parents took the child to be buried the same day.⁸³ Many parents did not want their children’s bodies opened up at all: George Thomson (1619–76), having gained permission to perform an autopsy on a child who had died of plague, reported “being much exhilarated in my spirits, having obtained that desire which was often denied me by those who pretended several slight excuses.”⁸⁴ On occasion, however, the parents of a monstrous child might sell it to a physician who would dissect it at leisure and then have it embalmed and added to his collection, perhaps after the body had been temporarily returned to the parents for further exhibition.

Evisceration was a prerequisite for embalming since preservation by permanent immersion in liquid within a glass “pot” was largely unknown until the 18th century (Frederik Ruysch of Amsterdam had mastered a wet technique to preserve infants in an uncannily lifelike condition by 1710, but kept his method secret),⁸⁵ mummification or embalming with resin being the usual methods used. In 1691 a “meticulous” surgeon named Wagner performed an autopsy on a monstrous child, preserved the body in balsam and presented it to a museum.⁸⁶ An alternative means to display the remains after autopsy was to remove the flesh entirely and articulate the skeleton.⁸⁷

The autopsy itself was a semi-public display; in 1670, when the Public Anatomist of Venice, whose dissections were performed before a select audience of noblemen and physicians, “lighted upon two odd Births [...] of Twin-Females, very handsom [...] fastn’d together by the breast” he opened them and found a single heart “though greater and rounder than ordinary; so that Nature seemed to have united the Matter of two into one.”⁸⁸ In the same year the *Philosophical Transactions* included an autopsy report giving the weights and dimensions of all major organs of a double monster.⁸⁹ Perhaps some prosectors were making such measurements routinely, an early step towards quantitative data collection at autopsy. Reports in scholarly journals provide a good indication of the procedure that was normally followed. Take, for example,

83 Tyson, “An Observation.”

84 Thomson, *Loimotomia*, 70–71.

85 Purcell and Gould, *Finders, Keepers*, 13–32.

86 Hartmann, “Anatome.”

87 Paullin, “Observationes.”

88 Grandi, “Italian Letter.”

89 Durston, “Narrative.”

Dr. Johann Jaen's account of a monster without a head.⁹⁰ It begins with an external description of the child, concentrating predictably on the cranial defect. Jaen then proceeds to describe the pericardium, heart, and lungs, and then the liver and other structures below the diaphragm. The kidneys, which could only be dissected after the abdominal viscera were removed, are mentioned last. The published account follows the sequence of events at the autopsy: first examining the head, then opening the body from sternum to belly, eviscerating the abdomen, and cutting out the retroperitoneal structures. In perusing the report, the reader's attention moves from one region of the body to the next in a similar order to which the anatomist would have demonstrated the findings to a live audience. A description of another child born without a head as possessing "no more of the skull, than is generally left on, when it is sawed off, to shew the brain" indicates the customary method of opening the skull by sawing around the calvarium, a technique still in use today.⁹¹

5.8 Lost Souls

By the late-17th century the influence of Cartesian dualism had resulted in a new concern with the spatial location of the soul. Rather than following the scholastic model that "in each body the whole soul is in the whole body, and whole in each part of it," which led to the presumption that a fetus had to be substantially complete to be soul-bearing, Cartesians situated the soul in the pineal gland.⁹² This theory simplified the problem of double monsters since those with two heads must possess separate souls. However, it created fresh problems in interpreting children with deformities of the brain – what would now be called anencephalic fetuses. Take, for example, a child born in France in 1690 with "a great deformity of the head," which "cast doubt upon the conformation of the brain, which is the seat of the soul." The child was born dead, but the *Journal des Sçavans* discussed what the correct procedure would have been had it lived, the consensus amongst clergy being that conditional baptism would have been indicated. A distinction was apparently being made between live birth and possession of a soul – according to the Cartesians it was possible for a baby to be born apparently alive and yet for it to be soulless. Such a child might have been comparable to an animal, and indeed the child with a deformed head was likened to a cow, and attributed to maternal impressions,

90 Jaen, "Infante."

91 La Motte, *Midwifry*, 457.

92 Augustine, *On the Trinity*, vi, 6.

the mother having been frightened by such an animal during her pregnancy.⁹³ For the cleric who reported it, however, the suggestion that a child that was to all appearances human might lack a soul raised doubts about claims that the soul could be so precisely localized: “according to Descartes, this child, who had as fine a face, as any new-born child I ever saw, could not be a reasonable human creature; for as she wanted the glandula pinealis, which according to him, is the seat of the soul, she could have no soul at all.”⁹⁴

These concerns over the soul of a monster at the end of the 17th century represent a continuation of the special interest that Christian thinkers had shown in monstrous births throughout the early modern period. The origins of this special relationship lay in the ancient tradition of monsters as prodigies. During the Reformation, monstrous births were important indications of the engagement of the Creator with a disenchanting world, strange and unfamiliar signs that conveyed a much needed divine message for the observer’s particular time and place. Through observing monsters closely, one could discern the actions of their creator. The monster’s double state, combining human and animal, male and female, or two souls in one body, was a faint shadow of the dual nature of Christ, Himself the prototypical monstrous birth and the supreme manifestation of God to which all lesser wonders pointed. Its baptism was an object lesson that every human soul required the personal salvific grace of the sacrament that Christ had instituted on earth. Double monsters were proof in the flesh that a distinct body was not a prerequisite for the existence of the soul (which could therefore continue after bodily death), for one body might contain two souls. Autopsies were employed in an effort to prove the point, though the flesh was given less evidential value than behavior, if the monster had lived.

Ironically, the importance of monstrous births as exemplary baptisands and emblems of divine immanence availed them little in obtaining the corporal mercy of a Christian burial; the attention paid to their souls was directed towards knotty theological problems of ensoulment rather than individual salvation. Monstrous births were one of the most studied phenomena of the 16th and 17th centuries, and are important historical sources for tracing the development of the case report from ballads to scholarly journals, and of the autopsy from a quick opening of the body to a methodical description of the internal organs. However, despite the great, perhaps excessive, attention shown to the details of their lives and bodies, descriptions of monsters were often little more than a pretext for commentators to promote their own agenda: rather

93 Lugeris, “Extrait.”

94 La Motte, *Midwifry*, 455–457.

than seeking to make new discoveries, they saw what they expected to see and imposed preconceived interpretations. Monsters' very resistance to systematization and inherent ambiguity made them an interpretative free for all: they meant whatever their exegetes wanted them to mean. Reports of what are now called congenital malformations continue to appear in print and show no sign of becoming overfamiliar: conjoined twins in particular are often the subject of articles in the medical and popular press, which still perhaps reveal more about their observers' preoccupations than about the lives of their subjects.

Corpses, Contagion and Courage: Fear and the Inspection of Bodies in 17th-Century London

Kevin Siena

6.1 Introduction

Scholarship on the history of anatomy has amply demonstrated how human bodies took on new value as tools for medical investigation in the Renaissance. The universe beneath the skin was ripe with promise for natural philosophers who posed tantalizing questions with increasing verve as the early modern period progressed.¹ However, exploring the subcutaneous world generally required that a body be dead (at least for human bodies).² This volume testifies to the range of purposes for which early modern investigators analyzed corpses. This chapter's point of departure is the fact that examining cadavers could be dangerous. Little has been written exploring how fear of infection influenced post-mortem investigations in the early modern world. Dead bodies rotted, as everyone knew. Moreover, some might continue to harbor the contagions that killed them. Investigators had to be careful. This chapter explores how contagion-anxieties influenced investigations of corpses in 17th-century London. If corpses were evidence, as the title of this volume suggests, one of the most valuable lessons to be learned from them was whether a city faced an epidemic. That pressing question both invited and repelled investigation. By the 17th century there was a clear thirst for information that could only be gathered by getting up-close-and-personal with a cadaver, but there was also a growing worry about such proximity to corpses.

This chapter explores this tension within the context of the 1665–66 London plague epidemic. The rhetoric arising from one particularly controversial dissection not only shows how such examinations might take place during an epidemic but also how various actors battled to claim authority over

1 The literature is vast; given the contributions to this volume it need not be exhaustively rehearsed here. Key works include Sawday, *Body Emblazoned* and Park, *Origins of Human Dissection*. For the 18th century, see Cunningham, *Anatomist Anatomis'd*.

2 On vivisection, see French, *Dissection and Vivisection*; Guerrini, *Experimenting with Humans and Animals*; Bertoloni Meli, "Early Modern Experimentation on Live Animals."

corpses. These debates not infrequently hinged on revealing assertions about factors like bravery and fear. As empiricism gained value during the scientific revolution some dissectors linked masculine bravery to intellectual advancement by maligning as cowards those who shied away from handling cadavers. Furthermore, the fear of contagious corpses was so powerful that it left a substantial institutional legacy in London in the form a unique system for investigating dead bodies. Such fear thus constitutes an important contextual factor for understanding the circumstances under which the corpse-as-evidence was explored – or not explored – in 17th-century England.

6.2 Plague, Putridity and Danger

London's system for corpse inspection, which is explored in the final section of this chapter, has its origins in plague, and it is in relation to that disease that contagion-anxieties about corpses were their most acute. Central to understanding the links between corpses and plague were contemporary medical ideas about putrefaction. As Andrew Wear has shown, putrefaction – the process of rotting – was central to early modern pathology. Doctors believed that the stagnation of bodily fluids or the invasion by corrupt matter could initiate subcutaneous putrefaction, one of the most common mechanisms by which early modern diseases functioned.³ Rotting food, infected wounds, and festering corpses all suggested that death and rot must be connected. Diseases that marked the skin were among the most often interpreted as putrid. Spotted fever, small pox, measles, the French pox, scurvy and the skin disease known as “the Itch” were all categorized in this way because doctors presumed they showcased corrupt fluids rising to the surface as the body tried to expel them.⁴ In such cases, patients were literally thought to be rotting from the insides out.

Plague was the foremost putrid fever. Father of modern contagion theory, Girolamo Fracastoro established putrefaction as essential to the mechanism of contagion: “without some sort of putrefaction, there can be no contagion.”⁵ Nathaniel Hodges, who worked throughout the terrible London outbreak of 1665–66, called plague “the Height of Putrefaction and Malignancy.”⁶ Indeed, putrefaction colors almost every element of his treatise on plague. Risk for the

3 Wear, *Knowledge and Practice*, 136–141. See also, Siena, *Rotten Bodies*, 19–48.

4 See for example Byfield, *Short Discourse on Small-Pox and Putrid Fevers*.

5 Quoted in Gibbs, “Medical Understandings of Poison,” 190. See also Nutton, “The Reception of Fracastoro’s Theory,” 210–213 and 222–223.

6 Hodges, *Loimologia*, 33–34. Hodges originally published his treatise in 1672. I have here used his 1720 English edition.

disease hinged on levels of putridity in the blood before plague hit; prophylaxis required cleansing such corruption preventatively; and treatment centered on purifying the fluids.⁷ Doctors searching for origins of epidemics encouraged sanitation schemes to cleanse possible sources of filth.⁸ Physician Steven Bradwell was typical when pointing out the dangers of “filthy sincks, stincking sewers, channells, gutters, privies, sluttish corners, dunghils, and uncast ditches.”⁹ Plague Orders commonly mandated street-cleaning and the carting away of filth that might spark a new epidemic.¹⁰ Rotting meat was a particular worry, leading to the regulation of butchers and slaughterhouses. Hodges was one of many physicians who warned that “putrid Humours” were generated from “corrupted, or rotten Flesh.”¹¹ To physicians like Thomas Brasbridge rotting animal carcasses could spark epidemics because they emitted corrupt vapors as they decomposed, what he called “the evaporation of dead carcasses.”¹²

A corpse was dangerous by the same logic, as doctors repeatedly warned. In 1572 Brasbridge listed human corpses alongside dead animals, human waste and other forms of filth. Plague was generated,

through the stinche of chanel, of filthie dung, of carion, of standing pudles, and stincking waters, of seeges, or stincking privies: of shedding of mans bloude, and of deade bodies, not deeply buried, (which happeneth among Souldiors:) of common pissing places, and such like.¹³

The case of dead soldiers was a particularly durable example used to convey the contagious potential of rotting corpses. Writing during the great epidemic of 1665 the self-proclaimed *Plagues Approved Physitian* concurred: “[T]he ayre is often corrupted by the evaporation of dead carcasses lying unburied, as it often chanceth in the warres.”¹⁴ Hodges agreed, citing the “Steams and Exhalations from putrefying Bodies” to issue the same warning.

As Battels are generally fought in Summer-Time, when by the Heat of the Season Things are most disposed to Putrefaction, so it has often been observed, that the Plague has appeared after great Slaughters of Men in

7 Hodges, *Loimologia*, 59, 61, 92, 95, 103, 168, 197, 237–238.

8 Slack, *Impact of Plague*, 44–50, 202, 204, 218–219.

9 Bradwell, *Watch-Man for the Pest*, 4.

10 Slack, *Impact of Plague*, 44–46; Wear, *Knowledge and Practice*, 314–20.

11 Hodges, *Loimologia*, 58–59.

12 Brasbridge, *Poore Mans Jewel*, chap. 3.

13 Ibid.

14 Anonymous, *Plagues Approved Physitian*, n.p.

Fight [...]. *Ambrose Parrey* gives a Relation of a Plague, that laid waste almost a whole Country, which had its Rise from the Stench of a great many human Carcasses that were thrown into one Pit, and left Rotting uncover'd.¹⁵

It mattered little whether the by-products emitted by rotting substances were conceived as fumes by miasmatic theorists or tiny particulate matter by contagionists. Putrefaction was useful to both theories, which is why there was broad agreement that all forms of rot were potentially dangerous and that a rotting human body could be downright deadly. Hodges, for example, warned that death did not halt the danger that a plague-victim posed. If anything it magnified as time went on. "Yet the Energy of the pestilential Contagion not only freely discovered its self in these Profusions amongst the Living ... but commonly the very Carcasses when dead, would weep out, as it were, the morbid Ferment, both through the cutaneous Pores, and the common lachrymal Ducts of the Eyes."¹⁶ Later in the century Paul Barbette warned of "Carcasses either not at all buried, or else shallowly interred," while even at the dawn of the 19th-century London readers were still lectured about "the factor exhaled from the dead bodies left on the field of battle."¹⁷ The predominance of warnings about the corpses of soldiers is instructive because it underscores how all corpses – not just plague victims – were potentially dangerous. Thus inspecting any corpse carried risk. Of course, the bodies of plague victims were particularly frightening.

6.3 Dissection and Danger

Yet those bodies might reveal secrets about the disease that could help cure it. Post-mortem autopsies of plague victims were not unheard of, though they were relatively rare and, as we will see, controversial. Evidence of autopsies during the initial outbreak of the Black Death survives, though Katharine Park describes such endeavors were "relatively infrequent."¹⁸ Detailed descriptions of autopsies survive from epidemics in 16th-century Spain.¹⁹ However, Ann Carmichael found no instances of post-mortem dissections in her

15 Hodges, *Loimologia*, 234–235. See also Harvey, *Discourse of Plague*, 1 and 5.

16 Hodges, *Loimologia*, 109.

17 Barbette, *Thesaurus chirurgiae*, 347; De Merten, *Account of Plague*, 109.

18 Park, "Criminal and Saintly Body," 8.

19 Skaarup, *Anatomy and Anatomists*, 172–75; Fernandez, *Anxieties of Interiorities*, 9–11.

study of plague in 16th-century Milan, and she suggests that fear of infection explains why.

Inspecting cadavers one by one was, in the plague treatises that asserted contagion, an exceptionally risky activity for physicians and surgeons. Many of these treatises instructed physicians how to prepare for and move about the sick room. Many recommended that they face outwards, toward a door or window, when in the patient's room. One treatise even provided elaborate instructions for covering the urine jar, so that urine analysis could be performed safely out in the street.²⁰

If the urine of a live patient was considered hazardous material, then delving into the putrid soup believed to fester inside a plague-corpse was clearly life-threatening. Few 17th-century English doctors were willing to brave it. George Thomson, however, was an exception.

Thomson was a Helmontian physician best remembered for two things: his acrimonious relationship with the Royal College of Physicians, and his ill-fated dissection of a plague-corpse in 1665. Ole Peter Grell has explored Thomson's controversial autopsy through the prism of religious history, while Ernst Gilman has offered a literary reading of the affair.²¹ Thomson was part of a group of outspoken London iatrochemists who criticized Galenic theory and the College itself and who established the rival Society of Chemical Physicians.²² As a result, College physicians jumped at the chance to portray his dissection as foolhardy. The internecine squabble predictably produced competing narratives that make it difficult to discern precisely what transpired. Regardless, these accounts shed considerable light on how such a dissection was approached and considered in the mid-17th century and how doctors forged and contested epistemic claims derived from such a body.

Thomson had already initiated a fight over the issue of dissections earlier that year in *Galeno-Pale* (1665). Lampooning Galenic physicians as too conservative, he criticized their dissections as mere anatomy lessons aimed at simply teaching bodily structures rather than understanding disease. One can imagine the disdain he generated by deigning to scold orthodox physicians: "Desist then ye vain-glorious Galenists from spending your days about impertinent

20 Carmichael, "Language of Plague, 1348–1500," 44–47.

21 On Thomson, see Webster, "The Helmontian George Thomson and William Harvey"; Moote and Moote, *Great Plague*, 150–52; Bell, *Great Plague*, 128–29; Grell, "Plague, Prayer and Physic," 213–218; Gilman, *Plague Writing*, 117–125.

22 For an overview, see Wear, *Knowledge and Practice*, 353–398.

and superfluous Searches in stinking Carcasses, which are never able to teach you how to destroy Rampant Diseases.”²³

Thomson's belief in the importance of post-mortem autopsy is reflected in how he entitled his plague treatise the following year: *Loimotomia, or the Pest Anatomized*. By using the verb “anatomize” Thomson conveyed that he was not merely studying plague but dissecting it, carving the beast open to explore its very entrails. In this Thomson may have been borrowing stylistically from van Helmont, who entitled his own plague treatise *Tumulus pestis. Or the Plague-Grave*. Here van Helmont presented himself as allegorically prying open plague's tomb, shining light into its sepulcher to learn the secrets hidden within. Thomson thus barely changed the metaphor supplanting the dissector for the tomb raider, both seeking truth in death and burrowing beneath the surface to get it. We know that Thomson read *Tumulus pestis* because he referenced the work directly, including van Helmont's reference to his own dissection of a plague corpse. Little is known of that dissection, however, and it is not clear how influential it was on Thomson; for despite emphasizing the importance of dissection in his other writings van Helmont only mentioned his plague-dissection in a single sentence in *Tumulus pestis*.²⁴ Regardless, in *Loimotomia* Thomson narrates the story of his own controversial operation, clearly responding to critiques that were already circulating by placing the issue of dissection in the very title of the book. Perhaps predictably, his rebuttal frequently centered on the theoretical disputes between Helmontian and Galenic interpretations of plague – the feature that scholars typically explore when studying Thomson. However, his rhetoric fascinates in other ways because it reveals the perceived danger of inspecting corpses during epidemics. It is telling that Thomson repeatedly framed assertions that hinged on the binary of bravery-versus-cowardice, claims that we see bore directly on epistemological claims to corpse-based knowledge.

He stressed his own intimate proximity to the plague-ridden corpse right from the opening lines, setting the stage for rhetorical strategies employed throughout the book. “I have here laid open what I visibly and experimentally have found to be true, what I have handled with these hands, and seen with these eyes.”²⁵ Thomson thereby presents iatrochemists like himself as hands-on men of science set against the Galenists anchored to antiquated theories. But by emphasizing that he has handled plague with his own hands and inspected it with his own eyes, he also set up a contrast rooted in assessments of

23 Thomson, *Galeno-Pale*, 27–29.

24 van Helmont, *Tumulus pestis*, 1128.

25 Thomson, *Loimotomia*, “Epistle Dedicatory,” A4.

courage. Consider that the above claim came just a few lines after he criticized the many Galenic “fugitive physicians” who fled London at the start of the epidemic.²⁶ The contrast is thus simultaneously scientific and ethical. Galenists were ignorant and cowardly. Importantly, these points were related. Only by braving contagion could scientifically-inclined physicians acquire the knowledge requisite to battle disease effectively. Dissecting a plague-corpse provided the ultimate example. Thomson thus framed his autopsy as an extension of his general approach to medicine, one which saw him confront danger on a regular basis: “I have ventured my own Life to save yours.”²⁷ Thomson bragged that he risked attending contagious patients not merely to save lives but to gather precious information: “I visited all sorts of People, the Poor as well as the Rich [...] observing from one, what might be useful to another; yea, I was so eager in the pursuit of Therapeutical Truth, that I was restless till I had the full view of the inward parts of a Pestilential Body.”²⁸ Noting that he not infrequently caught his patients’ illnesses, he seized on the kind of military metaphor that Susan Sontag famously analyzed to convey the danger.²⁹ “[W]hat an Army of Diseases have laid Siege to this my frail Mudwall, assailing, undermining and battering it with great and small shot [...] I stand in Admiration, that I have not ere this been laid flat on the ground, insulted over by Worms!”³⁰ If his critics called him irresponsible to dissect a plague-ridden corpse, he responded that they were cowards, and, precisely because they were cowards, fools.

Although couched in iatrochemical language, Thomson’s theories on plague predictably emphasized putridity. Wear has suggested that van Helmont actually played down the role of putrefaction, and he points to Thomson’s work on the blood as exemplifying how English Helmontians saw putrefaction rather as an effect of disease than as a cause.³¹ Be that as it may, Thomson presented putrefaction in quite traditional, causative terms. Plague’s contagion was rooted in the subtle poison emitted when “putrid bodies [are] excited to fermentation.”³² Thomson warned of typical sources, for example, dunghills, stagnant water that took on a “fracedinous odour and corruption,” and – importantly for dissections – when “opening the body of any putrilaginous substance do[es] accidentally cause a Fermentation in its parts, and thereby an Expiration of

26 Ibid., “Epistle Dedicatory,” A3.

27 Ibid., “To the Reader,” n.p.

28 Ibid.

29 Sontag, *Illness as Metaphor*.

30 Thomson, *Loimotomia*, 1–2.

31 Wear, *Knowledge and Practice*, 423–425.

32 Thomson, *Loimotomia*, 8. On the role of putrefaction in van Helmont’s theory of plague, see *Tumulus pestis*, passim.

unsavoury and noysom Atoms.”³³ While Helmontians and Galenists may have diverged slightly on the role of putrefaction in other diseases, they were of a shared opinion when it came to plague. Thus, cutting into a plague corpse was every bit as dangerous to a Helmontian as a Galenist.

6.4 The Controversial Operation

Thomson obtained the body from William Pick, a patient he had cured of plague. Pick’s unnamed 15 year-old male servant was not so lucky. When Thomson pressed for the chance to dissect the boy Pick acquiesced only reluctantly, being “not without ... fear least I should do my self injury.” Thomson declared feeling “exhilarated” at gaining an opportunity so often denied him “by those who pretended several slight excuses.”³⁴ Pick did not attend the dissection himself, surely out of terror. Instead, he ordered one of his domestic servants to assist. One can only guess how the servant felt about the assignment.

The body was fresh. The boy had been dead just twelve hours by the time Thomson cut into him. Nonetheless, he had already been nailed into a coffin. Moreover, the coffin had been moved into an airy yard adjacent to Pick’s house. The worry about “exhalations” and “steams” from the corpse demanded it. Conducting the dissection indoors was likely out of the question. Daylight was thus precious, so Thomson prepared quickly. One instrument was especially important: “a porringer containing Sulphur to burn under the Corps.”³⁵ Plague doctors had long recommended fragrance to combat airborne plague, whether sweet smelling herbs and flowers, or strong substances like vinegar or sulphur.³⁶ Indeed, the sulphur pot appears prominently in *Loimotomia’s* frontispiece, an image that drives home how central the issue of dissection was to Thomson’s entire treatise (Figure 6.1).

The urn is front and center, its fumes rising to combat the deadly vapors believed to emanate from the corpse. Two figures stand behind the body. Close inspection suggests that they represent not Thomson and the servant but rather, as Grell has suggested, two depictions of Thomson.³⁷ The clothing, hair and faces are identical. Thomson on the right is the man of science, scalpel in one hand, dissected piece of the corpse’s viscera in the other. Thomson

33 van Helmont, *Tumulus pestis*, 22–23 and 56.

34 Thomson, *Loimotomia*, 71.

35 Ibid.

36 Slack, *The Impact of Plague*, 35; Moote and Moote, *The Great Plague*, 105–107; Wear, *Knowledge and Practice*, 320–325.

37 Grell, “Plague, Prayer and Physic,” 216.



FIGURE 6.1 “The Manner of Dissecting the Pestilential Body,” frontispiece. Thomson, *Loimotomia*

on the left is a man of faith, hands clasped in prayer, an image that conveys in a different way how dangerous the endeavor was believed to be. The body itself is marked with plague sores from head to toe; no part of its visible skin is unblemished. Thomson’s description of first seeing the body supported this graphic portrayal.

The head of the Coffin being taken off, and the linen cleared away, I could not but admire, to behold a skin so beset with spots black and blew, more remarkable for multitude and magnitude than any that I have yet seen; some of which being opened, contained [sic] a congealed matter, in one more shallow, and in another more deep. Here I conceived something more than of ordinary Rarity might be discovered.³⁸

38 Thomson, *Loimotomia*, 71–72.

Thomson's textual and graphic references to heavily marked skin were meant to underscore the research potential of this particular corpse. Despite his brave travels during the epidemic, this, Thomson would have readers believe, was thus the most plague-ridden body he had ever seen. If any corpse held the secret of plague, surely this was it. However, if the scientific value of the dissection was enhanced by the intensity of infection suggested by the cadaver's skin, so, too, was its danger. One of Thomson's critics, rector John Allin, emphasized that several physicians lay dead precisely because they dissected "a dead corpse that was full of tokens."³⁹ Plague tokens were universally held to be a sign of contagious potential. Richard Kephale's *Medela pestilentiae* (1665) even warned that the spots continued to spread after death, "the venom yet tyrannizing over the dead carcasse."⁴⁰ Intriguingly, Kephale describes how the plague sores themselves might be cut open – dissected – to explore their depth into the body. "If they be skilfully dissected in the dead body, you may finde some half way, deep in the flesh; and some in the muscles of the breast have been followed with the Incision-knife, even to the ribbones."⁴¹ It is notable that here a dissection is presented as extraordinary even if it only explored a single blemish and probed merely as far as the ribs. Thomson, of course, was about to go much deeper, despite the danger posed by such a heavily marked corpse, one in which the deadly process of putrefaction was still ongoing.

Indeed, Thomson agreed that bodies were more contagious after death. The remarkable persistence of heat in his cadaver suggested to Thomson that plague was still active. Thus, in addition to visual evidence like blemishes, temperature marked another sign that corpses offered for interpretation, suggesting in this case that subcutaneous exploration was risky.

the Pest that arises from a contrectation of Entrals warm, is more active, and breaks out more violently than that which proceeds from the light touch of the same cold; & either of these are more Contagious, than a bare contact of the skin of a Carkass. If the skin of a living body suffer discontinuity, the Contagion of the dead enters more forcibly.⁴²

Thomson supported this claim with reference to a previous dissection, one of a body dead from spotted fever. During that operation he cut his finger, became infected, and was "more troubled to Cure it than any wound ever inflicted

39 Quoted in Bell, *Great Plague*, 203.

40 Kephale, *Medela pestilentiae*, 85.

41 Ibid.

42 Thomson, *Loimotomia*, 132–133.

upon me."⁴³ Given that experience and the danger of the cadaver now before him, one must ask how Thomson could have proceeded? Yet it was precisely the intensity of infection suggested by the corpse's spotty skin, elevated temperature and probably also its smell, that allowed Thomson to justify risk by again linking bravery to scientific advancement: "Here I conceived something more than of ordinary Rarity might be discovered."

Thomson's comments on the spotted fever autopsy also emphasized the physical intimacy involved in dissection, highlighting the crucial role of the dissectors' hands. "Contractation" in the above quotation referred to fingering, touching or handling. It may be an indication of the intimacy it suggested that the word has since come to imply sexual touching. His description thus stressed the danger of lengthily handling the still warm viscera, contrasting that intimate touching to the fleeting, surface-level contacts that typically occurred between physicians and plague victims, such as merely brushing a corpse's cold skin. Moreover, *Loimotomia's* frontispiece displayed him holding a piece of the dead corpse in his fingers. Of course, that his hand was the point of entry for spotted fever suggestively supports the danger posed by a dissector's handiwork.

It was not coincidental that Thomson stressed his hands, however. The role of doctors' manual work had become a hot-button issue in his rhetorical battles with the Galenists. Physicians had long based their position atop the medical hierarchy on their status as learned gentlemen, healing with their university-educated minds rather than their hands. Surgeons, by contrast, practiced what many still considered a craft rather than a profession, the distinction marked by the fact that, as craftsmen, they worked with their hands.⁴⁴ Thus when Thomson critiqued Galenism he encountered the charge that he was more surgeon than physician. In reply, Thomson waved the banner of empirical inquiry, claiming that the title of surgeon did him honor. Galenists, he claimed, were impotent theorists, babbling in dead languages without getting their hands dirty. And emphasize hands he did: "If they were but truly Chirurgi, Operators with their own hands, they would have attained ere this a farre greater excellency in that Art, in which I am sure they are extremely deficient, to their remarkable shame."⁴⁵ Here we essentially witness the scientific revolution's debate about the value of empiricism being applied to the topic of extracting knowledge from corpses. However, Thomson immediately reminds us that the dangers involved in dissection meant that medical advancement in

43 Ibid.

44 Chamberland, "London's Barber-Surgeons Company," 304.

45 Thomson, *Loimotomia*, 175.

this area hinged, once again, on courage, using his hands to symbolize the link between proximity to danger and scientific discovery.

I underwent a very difficult Task these late Contagious Times, performing it not perfunctorily, by Fits and Girds, by halves, in a trifling manner, expressing (as some that I know) such a fear in looks and gestures that was enough to bring the Plague into a House free from it: but I followed *what I took in hand* vigorously, to a purpose not ready to take my flight as soon as I was entered the doors, like the Statue of *Mercury* on Tiptoe, leaving behind a pitiful Recipe [...]; but I continued oftentimes half an hour, and sometimes an hour, conversing with my Patients, and giving them effectual Remedies, *prepared with my own fingers*, opening their Bubo's, and cutting out Eschars of Carbuncles, *by the operation of my own hand*.⁴⁶

Here the surgeon's skill, the act of expertly cutting the body – precisely the expertise needed to perform dissection – is not a mark of a lowly craft, but a badge of honour, honour that was at once probing and scientific, Christian and caring, and courageously masculine.

The above quotation invokes the issue of courage in another way. When Thomson suggested that a frightened doctor might bring plague into a healthy house he was not speaking metaphorically. Doctors had long held that fear could powerfully predispose a body to plague. Some even believed that intense fright might generate the disease anew. Indeed, it was one of van Helmont's central ideas.⁴⁷ Thus doctors recommended courage as a form of prophylaxis.⁴⁸ For Thomson, terrified physicians were not just ignorant because they refused to observe the plague up-close; their cowardice actually spread disease. By contrast, Thomson presented his own noble courage as preparing his body to confront plague, framing the discussion so that his protection was as much a function of physiology as of Divine grace.

All this while, the [*Protector of Men*,]⁴⁹ beholding my upright intentions, preserved me in health, even in the height when the Pest was most grasant, till such time being desirous to learn what might instruct me farther in the Nature and Cure of this abstruse Sickness, after that I had conversed

46 Ibid. Emphasis added.

47 van Helmont, *Tumulus pestis*, passim.

48 Wear, "Fear, Anxiety and the Plague."

49 Original in Greek.

with the Living about it, I entered into more than ordinary familiarity with a dead body; *Itum est in viscera* [i.e., I went into the entrails.]⁵⁰

Because his courage had seen him through earlier confrontations with plague Thomson felt physiologically armored and thus emboldened to plunge into such a dangerous body.

But fear functioned at an even deeper level, one that bore directly on how Thomson deciphered the dissection. Following van Helmont, Thomson believed that all bodies were protected by their Archeus, a chemical/spiritual force that protected against disease.⁵¹ Thomson personified it, describing it as the body's sentinel, protecting against invading forces. But in the case of plague, the Archeus failed. Tellingly, Thomson presented it as cowardly. In this passage for example, Thomson captures both senses of the physiology of fear: actual emotional fear predisposing the body to infection, and the deeper cowardice of the Archeus that allowed plague in.

Expedite and vehement is that Pest which is framed by a strong imagination of a fright in the Individual, for it often absolves a fatal History in a very short time, but what proceeds from a Terrour of the Archeus, ingentite in every particular part, although it have more danger in it, yet it begins and makes it progress a little more leisurely for the most part, giving fairer warning, which I ought to have taken more notice of, when those destructive Atoms entered into my hand at the time of the Dissection of such an infected Cadaver.⁵²

Importantly, Thomson here referred not to the spotted fever he had caught during an earlier autopsy. Rather, in the courtyard outside Mr. Pick's house he was for a second time infected by a corpse, this time with plague. And again the disease entered through his hand. Thomson had argued that extracting superior forms of knowledge from corpses demanded that one enter into a "more than ordinary familiarity" with them. He was about to do just that.

He did not cut himself during the operation, however. This time plague simply leached through his skin. At least that is how Thomson perceived it. It would have been easy to believe, considering the "cadaverous gore" in which his hands were submerged throughout the operation.⁵³ Although Thomson

50 Thomson, *Loimotomia*, 109.

51 Pagel, *van Helmont*, 96–102.

52 Thomson, *Loimotomia*, 64–65, also 25 and 34.

53 Thomson, *Misochymias elenchus*, 23.

had little time for the Galenic theory of humors, he clearly still viewed the body as profoundly liquid, time and again describing the dissection in terms of the fluids he encountered. Putridity abounded. Consider his preliminary entry into the abdomen.

I made entrance into the lowest venter or Region, where appeared a virulent Ichor, or thin liquor variously coloured, as yellow, greenish, &c. the small guts being much distended with a venomous flatus, did contain a great quantity of foul scoria or dross.⁵⁴

The stomach similarly contained a “poisonous liquamen [...] a black matter like Ink,” while the lungs held “a sanious dreggy corruption.”⁵⁵ Adjectives like “cadaverous,” “foul” and “dreggy,” likely have referred to the odor he detected while handling this matter, though this is unclear. More corrupt matter awaited in the heart. Intrigued by a white growth and wanting a closer look, he took it in hand and raised it to his face: “extracting it with my fingers and narrowly viewing it.” Despite that this material was potentially toxic he demanded the servant examine it closely as well.⁵⁶ Thomson’s hands thus manipulated corrupt, and therefore dangerous, matter throughout the entire operation. But despite that he was lengthily bent over the body – leaning in to witness details as closely as possible, and even bringing bits of the corpse up to his face – and despite that he linked odor to contagion, Thomson did not believe that the infection came through his nostrils. He reminded readers that he had long braved the “noisome smells” of plague patients, and trusted the pot of sulphur purifying the air.⁵⁷ His hands, however, were another matter.

Thomson felt a tingling pain in his hand after the operation, deducing that plague had here made its first ingress. The infection moved quickly. Numbness set in before he had even washed.

Having finished the Dissection of this loathsome Body, I presently found some little sensible alteration tending to a stiffness and numbness in my hand, which had been soaking and dabbling in the Bowels and Entrals then warm, though it was Ten or Twelve hours after the Youth expired; whereupon having cleansed away that foulness it was besmeared with,

54 Thomson, *Loimotomia*, 72.

55 Ibid., 72–74.

56 Ibid., 75.

57 Ibid., 131–2.

I held it for some time over a dish of burning Brimstone, and so received the Gas thereof, but in vain.⁵⁸

Thomson initially thought little of it; he neither went home nor took any precautionary medicaments. Instead, he saw patients and visited colleagues, “relating with joy” the knowledge he had derived from the corpse.⁵⁹ Here is where Thomson’s actions become controversial and difficult for scholars to chart.

6.5 Competing Narratives: Thomson and His Critics

Numerous doctors died within days of the dissection: physicians Alexander Burnet, John Glover, Thomas O’Dowde, George Starkey, and Joseph Dey and apothecary William Johnson. It must have seemed too great a coincidence. Fingers quickly pointed at Thomson. John Tillison, a minor official at St. Paul’s cathedral, wrote in a letter of September 14 that they were infected at the autopsy. By Tillison’s reckoning a sizeable team dissected the corpse and that several died on the spot.

Dr. Burnet, Dr. Glover, and one or two more of the College of Physicians, with Dr. O’Dowd, which was licensed by my Lord’s Grace of Canterbury, some surgeons, apothecaries and Johnson the chemist, died all very suddenly. Some say (but God forbid that I should report it for truth), that these in a consultation together, if not all yet the greatest part of them, attempted to open a dead corpse which was full of tokens, and being in hand with ye dissected body some fell downe dead immediately and others did not outlive ye next day at noon.⁶⁰

Unlicensed physician and clergyman John Allin concurred, suggesting that a group including Starkey and six other doctors had purchased the most plague-ridden corpse they could find. His comment shows clearly of how the squabble between the iatrochemists and Galenists provided the lens through which the dissection would be interpreted.

Our friend Dr. Starkey is dead of this visitation wth about 6 more of them chymicall practitioners, who in an insulting way over other Galenists,

58 Ibid., 77–78.

59 Ibid., 79.

60 Quoted in Bell, *Great Plague*, 203.

and in a sorte over this visitation sicknes, which is more a judgment than a disease, because they could not resist it by their Galenical medicines, wch they were too confident yt their chymical medicines could doe, they would give money for the most infected body they could heare of to dissect, which yey had, and opened to search the seate of this disease, &c.; upon ye opening whereof, a stinch ascended from the body and infected them every one, and it is said they are all dead since, the most of them distractedly madd, whereof G. Starkey is one. I heare also ye above 7 score drs, apothecarys, and surgeons are dead of this distemp in and about ye City since this visitation. God is resolved to staine the pride of all glory; there is no boasting before Him, and much lesse agst Him.⁶¹

Allin takes a notably different stance on the issue of courage. Whereas Thomson presented his own bravery as noble and scientific, Allin cast it as foolhardy. Given the horror of the 1665–66 epidemic, it would seem hard to argue with the potential value of discovering the “seate of the disease.” Nevertheless, in Allin’s telling the dissection represented a public health hazard, the height of irresponsibility and foolish pride. It was because of such criticism that Thomson closely detailed his movements immediately following the operation.

First, Thomson insisted that he dissected alone, save for Pick’s servant. Dey and Starkey, he claimed, were unable to join him because, importantly, they were already sick. This point killed two birds with one stone: establishing that they were not present and offering an alternative explanation for their deaths. Thomson eulogized his iatrochemical brethren, underscoring the same link between courage and empiricism that he claimed for himself. Thomson admitted to visiting them after the dissection, noting that they were “much delighted to hear” the details.⁶² And though they were not at the dissection, Thomson stressed that each wished they could have been, presenting their desire to open a plague corpse as a kind of dying wish.

I question not, as I have it from their own mouthes, but either of those Gentlemen would willingly have joyned with me in this Anatomy, had not the Opportunity offered to me occurred so unexpectedly, that I could not conveniently gain any leisure to send to them. Moreover they were both seized upon by this Truculent Disease, before I entered upon this Dissection: so that Dr. Dey was not capable to assist me therein, being

61 Quoted in Cooper, “Notices of the Last Great Plague,” 10. See also Bell, *Great Plague* 203; Moote and Moote, *Great Plague*, 151.

62 Thomson, *Loimotomia*, 98.

infirm; and Dr. *Starkey* went to and fro with this mortal Arrow sticking in his side unfelt: and withall, so great was his employment, and medicinal negotiation at that time, that it was both hard to finde him out, and likewise to divert him from those engagements of visiting his Patients he had taken upon him. Wherefore I thought good to lay hold alone, of that seasonable sudden Occasion then presented of prying into this dead Body, through the peevishnesse and crossnesse of some, and fond foolish fear of others.⁶³

By any 17th-century physician's account Thomson was potentially contagious following the dissection. The corpse had transferred the poison from its own body to his, rendering Thomson a potential vector, which explains why he stressed Dey's and Starkey's pre-existing infections.

Thomson's rhetorical skill is perhaps best displayed analyzing his own infection. Surely, the fact that he contracted plague must have proved his critics correct that the dissection a treacherous stunt. Yet it was the fear of doing such dissections that Thomson called "foolish." How, one must ask, could he support such a claim when he very nearly died? The answer lies in Thomson's presentation of the mingling that occurred between his body and the corpse. By catching the disease Thomson claimed to achieve a unique combination of what we might now call objective and subjective forms of knowledge about plague. The experiment did not end when Thomson wiped his hands clean and walked away from the corpse. Rather, it had multiple phases. The first was a more traditional scientific experiment, in which the scientist-as-subject examines an element of nature-as-object, in this case a cadaver. Processing the object with his senses, primarily sight but also touch and smell, Thomson stands in a traditional subject-object relationship of experimental study. The servant boy before him is no longer a subject; death has stripped him of his ability to think or feel, thus his lifeless body is coldly objectified under the scientific gaze. His body was not so lifeless, however, that it could not act. The poison of the plague was still highly active, as evidenced by the remarkable persistence of heat in the bowels about which Thomson repeatedly commented. The corpse reaches out. It takes Thomson – by the hand, no less – and bequeaths a final gift.

Here begins phase two. Unlike a typical research trial, the scientist now becomes part of the experiment. As plague courses through his own veins Thomson gains a new perspective, a subjective insight, yielding – he was at pains to stress – a more intimate understanding of the disease than ever before. As Thomson's own body takes on some of the qualities of the corpse he can not

63 Ibid., 103–105.

only explore plague's symptoms with his external senses but now experience them viscerally. Thomson emphasized the seamless movement from cadaver to doctor when introducing his chapter of observations that followed his narration of the dissection: "I shall now deliver to you the Physical Observations I made, resulting from both dead and my own living Body." This claim followed immediately from a passage we encountered earlier but which is now useful to revisit.

All this while, the *Protector of Men*, beholding my upright intentions, preserved me in health, even in the height when the Pest was most grassant, till such time being desirous to learn what might instruct me farther in the Nature and Cure of this abstruse Sickness, after that I had conversed with the Living about it, I entered into more than ordinary familiarity with a dead body; *Itum est in viscera* [he went into the entrails], I searched many dark Corners thereof to be taught something, but I bought my Learning at a dear Rate; and what the Cadaver could not teach me of it self, was infused into me to my sad Experience: *Experto credite*. [Believe the expert.]⁶⁴

It was thus precisely what his critics lampooned – his resulting infection – that allowed Thomson to claim superior expertise. This remarkable passage itemizes and critiques several modes of knowing. Perhaps some diseases could be mastered through traditional study, but not plague. "Conversing with the living" – i.e., learning from other doctors or treating patients – was not enough. It was precisely the inadequacy of that epistemology that drove Thomson to explore the corpse-as-evidence, danger notwithstanding. However, even this proved insufficient. Even opening a corpse to view within was inadequate. Only when he entered into "more than ordinary familiarity" with it, literally absorbing its essence and making it a part of himself, was full knowledge possible. Perhaps predictably, Thomson used the opportunity to extol the superiority of the Helmontian medicines that cured him. But what is more important for us is how he presented the bungled dissection⁶⁵ as a means for accessing deeper truth about the body. His ultimate claim is epistemological: *Experto credite*.

He may have made a strong case because his opponents shifted strategies. Yes, the dissection posed a health risk. But what if Thomson was right that it held momentous value? The Galenists had to change tack. In 1671 physician Henry Stubbe attacked Thomson in a new way, belittling his evidentiary

64 Ibid., 109.

65 He admitted "I confess I was a little careless." Ibid., 78–79.

base. A corpse was evidence, but how valuable was a single body? “As for the knowledge this talkative person should acquire by dissecting one body, it is but little; it argues want of reason in him to conclude generally from one case.”⁶⁶ Thomson and his critics had each previously emphasized the *nature* of the body dissected; covered in sores, it was the most plague-ridden body imaginable. The dissection’s value – or conversely its risk – hinged on a *qualitative* presentation of the corpse. Stubbe’s new quantitative attack was rooted in the growing value being placed on numbers in the 17th century.⁶⁷ However, it also stemmed from the physiological theory that all bodies possessed unique constitutions. It was still impossible to generalize from one body to all bodies because bodies were not uniform. Stubbe therefore made a cogent criticism that a single dissection could not possibly bear universal truths, because plague, like all diseases, affected each body differently. Stubbe expounded on the wide varieties of bodies and plagues and drove home his critique by attacking both elements of Thomson’s epistemology: his objective knowledge gained from viewing the cadaver, and his subjective knowledge born of carrying plague himself.

These discourses will satisfie any man of the vanity ... of acquiring any superlative skill by the *dissecting of one infected Body*, or *feeling one sort of Plague twice or thrice*; whereas not only each Pest differs in specie, but often in individuo: and undoubtedly, according as the venome, and venenate symptoms differ, so would the several bodies if dissected.⁶⁸

The evidence provided by a single body, living or dead, was thus puny. Apparently Thomson did not feel the need to change his rhetorical strategy; he simply responded to Stubbe by calling him one of the “many Cowards [who] ran away in times of greatest necessity.”⁶⁹

Nevertheless, Stubbe’s logic had potentially significant implications for the corpse as evidence in the early modern world. It suggested that 17th-century dissections could only ever yield partial, individuated knowledge and never universal truth. At the very least, one would need to explore hundreds of bodies before they could lay claim to the title of expert. But given the danger posed

66 Stubbe, *Lord Bacons Relation to the Sweating-sickness*, 55.

67 Kuhn, “Mathematical versus Experimental,” 31–65. For medicine, see Cassedy, “Medicine and the Rise of Statistics,” 283–312.

68 Stubbe, *Lord Bacons Relation to the Sweating-sickness*, 78. Emphasis added.

69 Thomson, *Misochymias elenchos*, 61.

by examining even a single body, who on earth would dare examine that many plague-corpses?

6.6 Postscript: the Searchers of the Dead

Yet there were those in England who inspected hundreds of bodies riddled with plague and other diseases, but who held a complicated, contested and ultimately fragile claim to expertise. A move from the exceptional to the mundane offers a useful lens to reflect on the debate over Thomson's dissection. A brief exploration of London's common body-inspectors can shed additional light on the contestation over just what evidence a corpse could provide, who was authorized to read it, and how fear of contagion framed these questions.

Richelle Munkhoff is largely responsible for teaching us about 16th- and 17th-century "Searchers of the Dead."⁷⁰ While plague historians had long noted that parishes employed searchers during epidemics to examine bodies and report whether they had died of plague, Munkhoff offered a more probing exploration of their investigative duties. Since then scholars like Wanda Henry and myself have explored how the searchers became standing parish employees in London, functioning not merely during epidemics but in day-to-day contexts until 1836.⁷¹ By the later 17th century, London's searchers examined every single corpse in the city, thousands of bodies per year. Fascinatingly, they were exclusively old women. As this present postscript seeks only to contextualize Thomson's story, just a brief summary of their work can be offered.

As Munkhoff has shown, fear of infection – the topic that we have seen surrounded debates about inspecting bodies during epidemics – drove authorities to press elderly women into service, often threatening them with the loss of their pension if they refused the dangerous job. Their work involved a complex mixture of marginality and authority. As impoverished, old women they were marginal, even expendable. Yet to do their work the state had to vest them with forms of authority not typically afforded such lowly people and certainly not women. For example, they had the power to enter private homes.⁷² Moreover, the machinery of the plague orders turned on their word. If they declared plague, the full power of the state moved in to initiate quarantine. Their

⁷⁰ Munkhoff, "Searchers of the Dead"; "Reckoning Death" and "Poor Women and Parish Public Health."

⁷¹ Siena, "Searchers of the Dead in Long Eighteenth-Century London"; Henry, "Women Searchers of the Dead."

⁷² Siena, "Searchers of the Dead in Long Eighteenth-Century London," 123 and 139.

ability to read a corpse – the very ability that Thomson claimed for himself – was thus essential to public health. Searchers' reports were trusted to compile for the Bills of Mortality, the weekly published reports on births and deaths in London.⁷³ Yet critiques of searchers' authority highlight the uneven terrain on which debates about corpses as evidence played out in the age of plague.

Perhaps predictably, voices complained that such important duties were trusted to mere women. Physicians long emphasized the complexities of the human body, the confounding symptoms it produced, and the years of advanced study required to interpret those signs. Critics thus frequently depicted searchers as hopelessly inept. They were also frequently derided as immoral, as when accused of taking bribes to issue false reports. Early historians took such criticism at face value. F.P. Wilson uncritically dismissed searchers as “any old hags who were willing to risk its dangers,” while Thomas Forbes lamented that they were “incompetent.”⁷⁴

However, the evaluation of searchers' ability to read corpses was far more complex. It had to be. And here the culture of fear surrounding post-mortem investigations matters. Had the denigration of searchers as ignorant hags prevailed, London authorities would have been forced either to abandon examining corpses for plague or else get male doctors to do the job. But it was precisely because men of authority typically wanted no part of the danger associated with examining corpses that parish officials hit upon the scheme to impress plebeian women. As a result, voices came to defend the searchers' ability to read corpses. Searchers were not experts, of course; but they were good enough. There thus pervaded a tension between the patriarchal instinct to oppose granting women forms of authority reserved for learned men and a parallel drive to endorse their capacity to evaluate corpses sufficiently. Consider social scientists like John Graunt who made their careers analyzing the Bills of Mortality. Graunt's *Natural and Political Observations on the Bills of Mortality* (1662) is held as pioneering in what eventually became political economy, offering observations on the patterns he perceived in England's earliest demographic statistics.⁷⁵ Graunt voiced complaints about how the Bills were compiled, including the critique that searchers might take bribes.⁷⁶ However, if the searchers were incompetent, then the Bills were useless and his analytical work pointless. Graunt, thus reassured that the searchers were fit to

73 See Rusnock, *Vital Accounts*, 15–33.

74 Wilson quoted in Munkhoff, “Searchers of the Dead,” 20; Forbes, “The Searchers,” 1033–1036.

75 Graunt, *Natural and Political Observations* and Rusnock, *Vital Accounts*, 15–33.

76 Rusnock, *Vital Accounts*, 24.

read corpses. To make this subtle case Graunt cast the process of diagnosing a corpse as being merely an act of witnessing, something even uneducated old women could do.

Many symptoms, said Graunt, were merely “matters of sense.” By this he implied that they could be grasped just by being seen. In terms of evidence we might say that they were literally self-evident. Physicians portrayed the process of reading corporeal signs as a function of complex rationality. But here Graunt suggested that a corpse might be assessed without such advanced mental processing. One needed not the physician’s highly trained mind; functioning eyeballs were apparently sufficient. Commenting on the searchers’ reports he claimed, “I considered first of what Authority they were in themselves, that is, whether any credit at all were to be given to their Distinguishments; and finding that many of the Casualties were but matters of sense [...] I concluded the Searchers Report might be sufficient.”⁷⁷ Physicians disagreed, of course. Kephale justified his intricate analysis of plague sores, which catalogued their shape, placement, colour, and texture “because the Searchers do sometimes mistake.”⁷⁸ Notably though, he did not advocate replacing the searchers with physicians like himself. Indeed, in 1636 the College of Physicians happily encouraged the city’s surgeons to consider the job: “[J]oyne with the Searchers for the view of the bodies, to the end there may bee a true report made of the disease.”⁷⁹ Yet although more than 100,000 bodies were examined for the Bills of Mortality during the 1665–66 epidemic, there is no evidence that the surgeons took this advice.

Searchers continued inspecting all of London’s dead bodies, despite that plague never returned after 1666. And it is this feature – the careful inspection of every single corpse for 170 years with no outbreaks of plague, by women no less – that makes the London system of searching the dead appear exceptional.⁸⁰ Fear of future epidemics rendered the searchers a permanent

77 Ibid., 13. Emphasis added. See also 15.

78 Kephale, *Medela pestilentiae*, 82.

79 Royal College of Physicians, *Certain Necessary Directions*, n. p.

80 Many continental jurisdictions monitored plague, registered deaths and inspected corpses. For example, Sandra Cavallo has shown that corpse inspectors were appointed in Turin in times of plague. Cavallo, *Charity and Power*, 41. Moreover, in Venice the *Provveditori alla Sanità* began requiring parish priests to report instances of illness and death amongst parishioners in the early sixteenth century, a task they performed well into the eighteenth century. These examinations were always conducted by men. But these reports need not be based on their actual inspection of the body, as details could have been supplied by reports from doctors or loved ones. The *Protomedico* did maintain records on their inspection of corpses, but these were limited to suspicious deaths. By the time of this study, when searchers were inspecting each and every body in London “[t]ypically only a

fixture of mundane London bureaucracy. The evidence that only a corpse could provide was too vital to ignore. Almost a century after England's last outbreak of plague commenters like Thomas Short still stood behind searchers' abilities to read bodies. He paraphrased Graunt:

The Report of the Searchers may be credited in most Articles, as they are matters of Sense, as in Abortion, Still-born, Aged, Small-pox, Fits, Fever, Cough, Consumptions, Tething, Purging, Stone, Dropsies, Palsy, Pleurisy, Asthma, &c. In many Cases the Searchers Senses are sufficient, as in violent Death, Haemorrhages, Ulcers, &c.⁸¹

When they were finally legislated out of existence in 1836 London's searchers had collectively conducted well over a million post-mortem investigations. It was a system built on and sustained by fear. The fear that plague might return drove authorities to demand reports on every single corpse, while the fear of being infected by those corpses drove them to continue using poor, expendable women to perform that work.

Conspicuously absent in all of the commentary on the searchers is any mention of courage, a theme that played such a prominent role in the debates about Thomson's dissection. Thomson, we saw, stressed how his own bravery made him not just a better man, but a superior scientist. His rivals countered that he was a hazardous fool, and when that failed they attacked his small evidentiary base of just a single body. The searchers – who examined body after body, day after day – trumped Thomson on both counts; their research base dwarfed his and they braved far more bodies than he ever did. Of course, it would have made no sense to contemporaries to depict the searchers as brave simply because they were women and courage was a trait typically ascribed to men. However, the oversight also surely stems from the fact that describing searchers as brave would have amounted to an admission that men of authority shirked danger out of sheer cowardice. Women entered spaces and

handful of patients or corpses were inspected each month" by the Venetian *Protomedico*. See Bamjii, "Medical Care in Early Modern Venice," 3–6. Of course, inspection of corpses for legal purposes was commonplace across the continent. However, these, too, were never routine – as were searchers' inspections, which reported on every death in the city for at least a century and a half – and were typically only ordered by the courts in specific circumstances. See Watson, *Forensic Medicine*, 9–71, and Clark and Crawford, *Legal Medicine in History*. In the same vein, coroner's inquests were only ordered in specific circumstances as part of a legal response to potential crime.

81 Short, *New Observations*, 270–271. Emphasis added.

performed work that London's men refused to do, and no one, it seems, was keen to draw attention to that fact.

These very different stories converge when Thomson addressed the searchers directly. As ever, he wove his rhetoric carefully in order to maximize his claims to authority over the corpse. In a key passage he struck a balance quite like the one achieved by Graunt, deriding searchers as inferior sources of knowledge while simultaneously supporting that they were capable of doing the work. Some symptoms, Thomson argued, were well enough recognized even by common people:

For even a vulgar Head knows how to distinguish a Quartran Ague from a Quotidian, and both from a Tertian; a continual, from an intermitting Fever; the Spasm or Cramp, from a Palsie, the Dropsie, from an Atrophie, or a macilent Consumption.⁸²

This claim led immediately to an assertion about plague and searchers:

The silly old Women called Searchers, can report upon the bare Aspect of a pestilential Corps, when they see Tumors of the Emunctories, Cauterizing Carbuncles, Blains, Pustles, and those stigmata nigra, they call Tokens, in the superficies of the Skin, that this or that Person died of the Sickness. Wherein although they are sometimes mistaken by reason of some intervening outward Accidents, which may hinder the eruption of these pestilential Blossoms; yet an expert Physitian, that hath a more intuitive knowledge into these things than the common People, will hardly ever be mistaken in the Diagnosis of the Disease.⁸³

Notably, Thomson's comparison between himself and the searchers does not hinge on courage or experience, the two issues he so frequently stressed when differentiating himself from his Galenic rivals. Here the comparison is based on depth. Unlike his own probing dissection that sank deeply into the subcutaneous world, the searchers' examinations remained at the surface level. They can report on a corpse, but only on its "bare Aspect," based upon an examination of the "superficies of the Skin." Thomson thus undermined the searchers enough to sustain his claim to expertise, but not so much as to call into question their ability to do work that he surely did not want to do himself.

82 Thomson, *Loimotomia*, 46–47.

83 *Ibid.*, 47–48.

Perhaps we can conclude with the reminder that it was almost certainly the case that a team of female searchers examined the body that Thomson dissected before he ever got to it. The law mandated it. Thomson's dissection was clearly a rare occurrence. However, an awareness of the sheer scope of the searchers' investigative duties allows us to contextualize critically his rhetoric about courage and knowledge. The risk involved in dissecting a corpse during an epidemic presented opportunities for an ambitious physician like Thomson to lay claim to expertise in novel ways. We know that the production of scientific knowledge in this period was bound up in cultural issues like civility and honor, which were themselves defined in relation to gender and class.⁸⁴ Thomson shows us that another heavily gendered attribute, courage, could also be strategically deployed within scientific debates. One could not be both cowardly and enlightened.

The risks discussed above present an important contextual factor that future studies of dissection and other forensic investigations might consider in more detail. Early modern medicine held that all bodies rotted. Therefore, all autopsies, not just those conducted during epidemics, presented danger. For example, scholars might consider the contemporary advice about when to conduct dissections that hints at how anatomists took contagion-risks seriously. Discussing cadavers, the 17th-century Danish anatomist Thomas Bartholin once proclaimed "For what is man? Putrefying food for putrid worms." His description of the Anatomy House in Copenhagen reveals that winter was judged the safest time to dissect,⁸⁵ a point his student Michael Lyser explained because the cold retards putrefaction. Indeed, despite the cold Lyser stressed that no fire should be allowed in the room where the body lay lest its heat promote rot. Citing French anatomist Jean Riolan he advised that any anatomist risking a summer dissection should employ aromatic herbs and other antiseptic substances to combat corruption and they must take caution in how they stored the body.⁸⁶ Such advice was commonplace into the late 18th century.⁸⁷ Of course, retarding the process of rot had educational value, allowing anatomists and students more time to study the body before it transformed radically. However, given the powerful link between putrefaction and contagious disease these practices would have also had protective value. The same could be said of techniques to preserve samples of body parts taken from corpses

84 Shapin, *Social History of Truth*, 65–125.

85 Bruun (ed.), *The Anatomy House*, 55 and 71.

86 I have consulted the 18th-century English translation: Lyser, *Art of Dissecting*, 10–12.

87 Cunningham, *Anatomist Anatomis'd*, 231.

for teaching and study which often used substances like vinegar believed to combat putrefaction.⁸⁸

Both forms of evidence explored in this chapter – Thomson's rhetoric about bravery and the omnipresence of the searchers – underscore in their own ways how a contagion anxieties influenced medical investigations of bodies in 17th-century England and make the case for more attention to the health concerns that would have been on the minds of anyone exploring the corpse-as-evidence. Of course, plague epidemics were special circumstances when anxieties ran particularly high. However, the reliance on poor women to search bodies well into the 19th century, despite not a single epidemic after 1666, points powerfully to how fear of infection continued to frame death-inspection long after plague had disappeared from England.

88 Robert Boyle, to take one example, recommended preserving body parts in a wine-based "brine" that "hath a notable balsamic faculty, and powerfully resists putrefaction." Quoted in *Ibid.*, 234.

Knowledge from Bodies and Resistance to Anatomical Discourse (Padua, 16th–18th Centuries)

Massimo Galtarossa

7.1 Medical Expertise, Anatomy and Legal Advice

In this chapter, the importance of anatomical knowledge for the birth of forensic medicine is examined. Judges and other legal officials often either supported or prohibited the use of bodies in the anatomical practice for a variety of reasons. One of many reasons for supporting the use of bodies was the new information that could be acquired from them. Medical expertise benefitted from the possibility of studying a corpse to determine the cause of death, and this could then also be used in public courts for solving cases. However, the possibility to examine dead bodies was not always guaranteed. This transition was complicated and showed many discrepancies between theory and practice, similarities and contrasts, the need for the court to weigh customs and reasons of political expediency against each other, and an incomprehension by the judges of the mysterious investigations into the corpse. From the late 17th century onwards, however, the activity of experts as depositaries for a procedural function strengthened modern judicial practice.¹

Medical knowledge, with its strong legal implications, was closely related to the observation of the dissected body. Anatomists had been allowed to use cadavers since the late 13th century. Yet opening the body and manipulating its parts exposed the sector, i.e. the medical practitioners, not only to general hygiene risks, but above all to the real danger of contracting an illness such as scabies. Anatomical practice seemed to question the predetermined natural order which the integrity of the human body parts provided. These lifeless bodies still showed the humanity of living bodies.

In the early modern period, the University of Padua was an extraordinary laboratory for the processing of medical knowledge, and for beliefs around the legitimacy of dissections. On the one hand, we are indebted to anatomical

¹ Pastore, “Giudici e perizie medico-legali,” 42–50; Tedoldi, *La spada e la bilancia*, 114–115; Buganza, “La scienza strumento dell’interesse,” 133; Buganza, “Tra scienza, avvocatura e diritto,” 249.

research for its descriptions of body parts that led to a greater knowledge of the organic processes in the body. This step was useful in the formation of forensic medicine as a science that aimed to find out the causes of heinous crimes. And yet the transition from the opening of bodies, which produces knowledge, to the formation of testimonial evidence, passed through the material conditions of dissections. Actual limits were placed on anatomists with regard to the choice of the corpse, which was crucial for ensuring an optimal viewing of the body. In Padua, there was some socio-psychological resistance to an anatomical practice that considered cruel by many, and these sentiments were hardly reduced by the progress of medicine. There was a serious aversion to ‘trades of the blood’ which cast a long shadow over the profession of the anatomist. The surgeons turned towards the robbing of graves in order to further anatomical science by observation. The future of anatomical science in Padua rested in the hands of a public which felt repugnance for the dissected body, despite the potentially legal significance of the observations that an anatomist could make. Finally, in the 16th century, anatomists were legally permitted to use corpses, largely thanks to the liberality of the popes, princes and magistrates of the time. However, problems around the opening of the body and the very manipulation of its fibers persisted with regard to hygiene risks. Moreover, those who came in direct contact with the bodies faced the real danger of contamination. Despite these risks, anatomical practice brought into question the established natural order of the human body. Thus, the University of Padua became the leading laboratory of anatomical research in the modern age, although for a long time even the anatomist themselves sought some reconciliation with the violated bodies that lay before them.²

7.2 Credibility from Corpses

During the Venetian domination the University of Padua was an extraordinary laboratory for the study of the didactic anatomy of the body and became a ground-breaking institution in the Western medical tradition. Moreover, the University became a breeding ground for the elaboration of an elevated theoretical knowledge that could enrich medical and legal examination. The Venetian patrician Marc’Antonio Contarini’s esteem for Andrea Vesalius is well known. When Contarini was captain and deputy mayor of Padua in 1538–40, he protected and encouraged Vesalius, ensuring that the bodies of executed convicts were immediately made available to him so that he could carry out

² Carlino, *La fabbrica*, 216–217, 260–266; Mandressi, “Dividere per conoscere,” 117.

a public anatomical dissection within the period of time prescribed by the Statutes. In this way Vesalius could abandon his scholastic discourse on anatomy and devote himself to anatomy in the form of dissection. Suitable bodies were commonly difficult to find. In Padua two corpses per year were to be provided to the medical school. However, anatomists often faced delays, and resorted to illegal practices such as stealing corpses from cemeteries or private homes to fully meet the demand of doctors and students.³

The attitude of the Paduan nobility itself was prevented at the use of bodies. The 1547 provisions of the City Council prohibited the supply of bodies from cemeteries, as well as of human remains that had been thrown to the dogs or into wells, for anatomical studies.⁴ A year later the family Da Noale's sepulcher at the church of San Lorenzo was violated by the students, and the corpse of their farmer stolen. They sought justice by turning to the captain and deputy mayor of Padua. For this dynasty of university doctors, the safety of the farmer's body, the family's affectionate feelings for their servant, and their disgust at the idea that his body would be torn apart, were more important than the scarcity of corpses for public anatomical demonstrations.⁵ At the same time, according to the Paduan humanist Sperone Speroni, medical knowledge was being constructed at a rhetorical level which was much superior to that used to persuade judges in courts.⁶ In the 16th century, in the hierarchy of the disciplines, medical expertise, for which the dissection of the body was a specific aspect, only served as testimony but did not legally force a judge's hand.⁷ However, legal dissections enjoyed a long tradition that was closely interwoven with that of anatomical demonstrations. And if the aims of the latter were solid the distinction between the two did not exclude the anatomist from also carrying out the medical-legal examination.⁸

To return to the Contarini's attitude towards anatomy in Padua: this was not just a disinterested acknowledgement of the method by a generous patriot within the European culture, but the recognition of its importance by the member of a family that was often called upon 'to do legal justice' in civil and criminal matters – matters in which information derived from dissections was

3 Vesalius, *De humani corporis fabrica*; O' Malley, *Andreas Vesalius of Brussels (1514–1564)*, 143; Facciolati, *Fasti Gymnasii Patavini*, 208, 215–217 and 219; Ventura, "Contarini, Marcantonio," 238; Bylebyl, "The School of Padua," 354, 358–360; Carlino, *La fabbrica*, 97; Buganza, "Tra scienza, avvocatura e diritto," 248, 282.

4 State Archives Padua (ASP), City Council, *Acts*, reg. 15, c. 249. See also Favole, *Resti di umanità*.

5 ASP, Deputati ad Utilia, b. 98, letter to the Paduan Nuncio in Venice, 16 January 1548.

6 Carlino, "Les fondements humanistes," 39.

7 De Renzi, *Per una biografia di Paolo Zacchia*, 73; Crawford, *Legalizing Medicine*.

8 Carlino, *La fabbrica*, 209–211.

useful – in one of the main cities of the Venetian mainland. Already in the frontispiece of *De humani corporis fabrica*, which illustrates the dissection of a woman, it could be seen that anatomy was able to answer important questions for public authorities, whether a woman accused of murder was pregnant. One illustrative example is the case of a prostitute who declared herself pregnant in order to avoid being hanged. The claim was later denied by some midwives. The legal autopsy commissioned by Contarini would have removed every doubt and verified, in forensic medicine terms, the declarations made in court by the woman, who had meanwhile been executed.⁹

Another partnership between the Venetian government and Paduan doctors for the legal use of the *sectio* in Padua seems to occur in 1550 when, by decree of the Senate, all the bodies from the district of Padua were made available to Gabriele Falloppia, one of Gherardo Colombo's students. Falloppia's thought formed part of a conception of anatomical dissection that aimed to increase knowledge on the natural body as a mystery of creation. From the 13th century onwards, the statutes of many cities required medical and legal examination of the persons murdered, and a body of doctors was responsible for the autopsies of the bodies of those that had died from obscure causes. The doctors who appeared as experts in the courts were perceived to be guardians of a culture that had its foundations in the world of nature. Their examinations of corpses underlined their monopolization of medical knowledge and practices pertaining to the human body, which made their expertise rather convincing before the judges.¹⁰

The credibility of the knowledge derived from the study of corpses received institutional approval in Venice. In the *Annali delle cose della Repubblica di Venezia* it was reported that, in January 1586, the Avogadori di Comun (literally 'Municipal Attorneys') ordered the bodies of a number of men who had starved to death in Malamocco, Venice Lido, to be opened in order to ascertain the cause of death, and this led to the discovery that the 'cookies' they had eaten had been spoiled.¹¹ Two years later Antonio Milledonne, the Secretary of the Council of Ten, who was also part of the criminal deputation in the

9 Panetto, "Spunti per una rivisitazione del frontespizio del *De humani corporis fabrica*," 301–302.

10 State Archives of Venice (ASV), Riformatori dello Studio di Padova, b. 63; Facciolati, *Fasti Gymnasii Patavini*, III, c. 387; Favaro, *Gabriele Falloppia Modenese*, 95–99; Belloni Speciale, "Gabriele Falloppia," 483; Carlino, "Il cadavere esibito," 411–418; De Renzi, "La natura in tribunale," 815; Ferrari, "Tra medicina e chirurgia," 343, 346; Donato, "Il normale e il patologico," 77.

11 Library of the Museum Correr Venice (BMCV), Mss. Cicogna 2555, *Annali delle cose della Repubblica di Venezia dall'anno 1578–1586*, 12 January 1586.

patrician council, believed that an opening up of his body after his death and a dissection of his paralyzed right hand might be useful for the ‘common good,’ and, in particular, for resolving the conflicting opinions of the doctors whose care he was under. Milledonne therefore confirmed his wish of being dissected to “reveal the truth” in his will.¹²

In 1594 the establishment of a permanent anatomical theater in Padua attracted rectors and influential aristocrats, who worked in the courts in the cities of the Venetian mainland at the time. In Venice, the university theater was not a space for showcasing anatomy as an independent science, but rather served the state. In this Venetian context the ideas of Alessandro Benedetti, the physician and surgeon from Verona, came to life. In 1502 Benedetti had already proposed a new concept for an anatomical examination room which allowed the presence of the highest authorities. At the same time, he introduced the practice of praying for the souls of the dissected bodies. The intention of these devotional practices, prayers and high mass, was to reconcile the souls of the departed, who were often individuals of vile or infamous social status, with the natural order of the universe.¹³

7.3 The Body as a Repository of Knowledge

At the turn of the 17th century, the authoritative judgment of the mayor of Padua was that anatomy was considered the pride and joy of the University. Despite this, there were non-scientific elements hindering progress, including the feelings of the family of the deceased, but also repercussions tied to their social class. In 1605, the distress of the widow of a German man who had become a Paduan citizen and whose body had been removed by students for use in the anatomy theater, was enough to put new barriers in place against public anatomical dissections. The Venetian praetor, moved by the widow’s tears, ordered that the body be immediately returned to her.¹⁴ The problems, however, do not end here, if this is the same body that the physician Girolamo Fabrizi d’Acquapendente refused to dissect without the consent of the councilor of the ‘Natio Germanica.’ This was prudent behavior, a characteristic effect of the German student community on the urban reality, which was combined with

12 Rabbi, “L’eredità di Antonio Milledonne,” 204: “se ne veda la verità”; Galtarossa, “Antonio Milledonne,” 51–513.

13 Benedetti, *Historia corporis humani*, 21, 63; Prosperi, “Prefazione,” xvi; Carlino, “Religione, igiene, anatomia,” 108; Siraisi, “Segni evidenti,” 732; Ferrari, “Tra medicina e chirurgia,” 352–353.

14 Favaro, *Atti della nazione Germanica*, 228.

the delicate – and at times difficult – relations between Italian teachers and Germans students, and also the ‘civil character’ of the subject. It was a category of corpses that, according to the University charters, was excluded from anatomical dissection.¹⁵

It was the publication of *Quaestiones medico-legales*, which was issued in parts from 1621 onwards by the Roman physician Paolo Zacchia, that started a fruitful exchange of skills and knowledge between doctors and lawyers.¹⁶ But there was no unanimous consensus in Padua regarding the practice of anatomy as a way for doctors to acquire more knowledge about the body and therefore gain greater medical-legal expertise. In 1624, the citizens of Padua were horrified by and intercepted some students’ attempts to remove – with the approval of the councilor – the body of a Jew from a funeral.¹⁷ The general lack of bodies was a chronic problem, as there was an increasing demand for lessons on how the body functioned and was damaged by criminal actions. Even the population of Padua became part of this hostile climate. Twenty years later the German anatomist John Vesling informed the *Riformatori dello Studio di Padova* (the chief magistrates of the University of Padua) that people were covering the dead buried in the city with quicklime in order to stop the exhumation of bodies for anatomical purposes during the winter months of January and February.¹⁸ This was not an isolated phenomenon, because four years later, the same information was brought before the Venetian court. These oppositions not only crossed the barriers between the social classes, but also translated into the premeditated actions of thwarting the progress of anatomical research.¹⁹

Even the link between the chief magistrate of the city and the anatomists occasionally changed, causing delays to corpse supplies in the annual anatomy schedule, even because of personal misunderstandings. At the end of the 17th century this confusion arose from the protestations of the lector Michel’Angelo Molinetto against Giovanni Giustiniano, the chief magistrate of Padua. The rather eloquent dialogue between the two men was full of irony and allusions. In 1688, the chief magistrate was asked by Molinetto if he believed

15 Favaro, “L’insegnamento anatomico di Girolamo Fabrici d’Acquapendente,” 132; Klestinec, “Civility, Comportment, and the Anatomy Theater,” 434–463.

16 Pastore and Rossi, “Prefazione,” 8.

17 ASV, Consiglio de’ dieci, *Parti segrete*, b. 70, deliberation, dated 11 August 1760, with enclosures; Ciscato, *Gli ebrei in Padova*, 211.

18 ASV, Riformatori dello Studio, b. 69, letter to the Rettori of Padua, 8 December 1642. De Bernardin, “I Riformatori dello Studio,” 61–91.

19 ASV, Riformatori dello Studio, b. 70, letter to the Rettori of Padua, 9 January 1647 *more veneto*.

that death in Padua had fasted during Lent. The mortality rates were really low. The patrician replied equally caustically that he certainly had, and added that if a person lived a non-criminal life, their body was spared the anatomy theater. In short, little consideration was given to anatomical practice, even by this rector, who also presided over a criminal court.²⁰ Giustiniano was described as very devout and choleric in temperament. The same chief magistrate informed the Reformers about a lack of decorum in the burial of dissected bodies, which was done without the regulatory Catholic rituals.²¹ A few days later, a decree signed by the previous chief magistrate Giovanni Tron was issued, which excluded the brothers of the spiritual group of San Giovanni Evangelista, more commonly called 'Brotherhood of Saint John of Death,' from the theft of cadavers. In essence, with this decree, a substantial number of devotees had gained immunity from anatomical dissection by privilege of their service. The decree was important because the exemptions of this unique decree excluded the population of the eighteenth century from that duty.²²

The idea of a post-mortem mass was revived in 1703 by Girolamo Giustiniani who, having returned to Venice from mayoral office of Padua, explained the origins of the anatomy crisis in the classic *Relazione letta in Senato* (Report read to the Senate); they included the questionable conduct of the *massari anatomici* (i.e. those concerned the material organization of anatomy), the carelessness applied to burying the dissected bodies, and an exemption extended to Jews. Giustiniani proposed proper funerals as a remedy, together with some simple precautions such as the use of closed boxes, not bags, for the bodies, and also the establishment of a perpetual *mansionaria* for the religious intercession of dissected bodies.²³ In the early 18th century, the interest in anatomical practice strengthened with an increased number of requests for advanced dissection from high class families who wanted to establish their relatives' cause of death via an autopsy.²⁴ However the opinion of the general population continued to dictate the direction which the discussion of anatomy took, and not just in Padua. One salient comparison is that between Padua and Bologna. Not even

20 ASV, Riformatori dello Studio, b. 76c., letter to Michiel Angelo Molinetto from Padua, 17 March 1688.

21 ASV, Riformatori dello Studio, b. 76c., letter to the podestà and vicecapitano of Padua, 17 March 1689.

22 ASV, Riformatori dello Studio, b. 196, 'writing' of the chancellor of the *artista* college Giovanni Francesco Arsego, 16 and 21 February 1721, and, enclosed, the *terminazione*, 30 March 1688, of the podestà Giovanni Tron. Cf. Giro, *Saggi*, 81.

23 *Relazioni dei rettori*, 133, Report to the Senate, of the podestà of Padua Angelo Correr, 8 March 1611.

24 Olmi and Pancino, "Introduzione," 9.

the lure of promises and religious intercessions, “which would have brought out good words,” persuaded Caterina, a widow from Bologna, to hand over the body of her deceased husband Carlo Antonio Pini to students and porters. Distressed by their demands, she reported the situation to the competent Criminal Court of Torrione.²⁵ It is these *avvisi manoscritti* (handwritten warnings) of Bologna that inform us that, at the start of 1717, an intervention by the parish priest of Sant’Andrea degli Ansaldi and the relatives of a dead woman with cardinal Legato, stopped the students from taking possession of the body for academic anatomical purposes.²⁶

The contrasts between the different professional colleges, and their disputes, over the question which of the disciplines in Padua had precedence, could clarify the importance of anatomy to forensic medicine.²⁷ Chronic financial imbalances could also be counted among the contrasts between the disciplines both juridical and medical. In 1738, the chancellor of the *artista* college, probably due to a lack of funds, refused to sign the payment order for the intercession of the souls of those whose bodies had been subjected to anatomical dissection. This was probably related to the fact that a collection of funds for the intercession of the souls was no longer the obligation of the students who attended anatomical dissection as had been the case, for example in Rome, in the past – but of those who had a license to practice surgery. The post-mortem mass was a practice that could serve to create consensus in the ‘public sphere.’ The purpose of these numerous masses was to give a blessing for the desecration of bodies destined for anatomical dissection. Yet I think a more secure funding system, although it was not done at the time, would have been useful for consolidating these devotional practices, and even more for the rectors’ concessions for the corpses of convicted criminals which were to be sent to anatomy studies was incorporated in the *Pratica criminale* by Alessandro Barbaro (Venice, 1739). This book also allows us to better understand the acceptance and dissemination of these practices, and therefore the use of the knowledge that could be drawn from them, as a practice accepted both in procedure and in theory.²⁸

The crowning glory of this link between medical and judiciary knowledge arose in the middle of the ‘Enlightenment’ century with the anatomist from Forlì Giambattista Morgagni (1682–1771). In 1723, Morgagni acquired a large

25 Prosperi, “Prefazione,” xvii–xviii.

26 Caracciolo, “Medicina ed anatomia,” 80.

27 ASV, Riformatori allo Studio di Padova, b. 447, *Informazione* on the Colleges in Padua (1729).

28 ASV, Riformatori dello Studio, b. 86, ‘writing’ of Giambattista Morgagni, August 1725. Cf. Buganza, “Tra scienza, avvocatura e diritto,” 251.

skeleton of a condemned man and stored it in his 'studio.' This was not an anonymous person, but a policeman who had killed some Paduan students in 1723 and had been executed by the Council of Ten. This news had spread even to Paris. Morgagni, as President of the Paduan Studio as a substitute for rector student body, either expressed a deep sense of poetic justice (by condemning the corpse to eternally serve students), or rather one of real revenge, in support of University students demanding reform. Morgagni's acquisition of the body can be considered a bloody symbol of pacification between students, lecturers and the State.²⁹

Morgagni grew up in the same environment as Cardinal Lambertini, who became Pope Benedict XIV, and who would have given new impetus to the practice of anatomy at the University of Bologna. In the Paduan prolusion – the inaugural speech at the University – Morgagni asserted that, compared with the past, the doctors now were called to give advice to the ecclesiastical and lay tribunals. The professor-student relationship was central to Morgagni's writing. Morgagni presented contact with the dead body as a privileged, and as a unique source of professional medical knowledge, in the *Preface* of *De sedibus*, and he used a familiar and colloquial literary style for the fictitious medical-anatomical *Epistolae* to alleviate the students' fear of coming into contact with the body for the first time. This literary style was a refinement of the practices of the post-mortem mass. However, a few years later, in 1723, in the absence of masses for dissected bodies, surgeons were criticized because they had received no training in Latin, specialized further in their own countries rather than working at the University.³⁰ The matter of the suffrage masses that were required for the dissected bodies became instrumentalized by the different components of university organization, because in 1739 this was one of the proposals made by Mayor Giambattista Mazini.³¹

Morgagni is then again mentioned by Luigi Calza among the *auctoritates* on the doctrine of blood fluidity in corpses. Calza was a university doctor who had been called in by the court of Padua in 1782 as a legal expert in a case of

29 ASV, Riformatori dello Studio, b. 196, the letters of Giambattista Morgagni from Padua, 16, 20, 22 and 25 February 1722 *more veneto*, 1 March 1722 *more veneto*, 19 April 1723, ASV, Riformatori dello Studio, b. 197, letter of Giambattista Morgagni from Padua, 13 April 1723. ASV, Riformatori dello Studio, b. 85, letter of Giambattista Morgagni from Padua, 13 March 1723. Cf. Rossetti, "Inediti," 189–212; and Morgagni, *Opera postuma*, 64–65; Gamba, "Contributi," 383.

30 ASV, Riformatori dello Studio, b. 198, letter of Giulio Guglielmini, 13 April 1725. Cf. Brambilla, "La medicina nel Settecento," 86–87.

31 ASV, Riformatori dello Studio, b. 211, letter of the professor and Mayor Giambattista Mazini, 24 March 1739.

infanticide, for which he actually acted as a consultant. In fact, in the mid-18th century, forensics strengthened its presence in Padua by means of a specialist scientific consultancy of academic origin, in support of the reasoning of lawyers in criminal proceedings in Veneto, which were held at the judicial court of Padua.³² The transformation of doctors' reports into scientific counsel implied the presence of a well-structured knowledge with an awareness of anatomy that was growing extensively, just as medicine expanded within legal culture. Jurists used this knowledge, indeed at times they underwent it or tried to channel it, to manage verifications of the deeds, or in any case in the awareness that it, as a form of authority, could decisively influence the court proceedings. In the same manner, the defense lawyer saw it as a weapon for widening his reasoning by means of scientific authority.³³

7.4 Anthropological Resistance and Religious Practices

The introduction of anatomical language into the procedural steps of the old regime, in the fifteenth to eighteenth centuries, collided with the strong resistance against the use of the body for becoming aware of, and then proving, legal facts, because from the beginning there were cultural and social constraints that inhibited public anatomical dissections. The religious unease generated by the desecration, opening up and handling of corpses in the 16th and 17th centuries, which was not yet sufficiently recognized in Venice, discredited the practice of dissection across wide sectors of society (nobles and ordinary citizens, students and doctors, and finally, writers) and families and relatives; the evaluation of its supposed validity was not limited to the religious and judicial authorities. The customary practices, at least on paper, corresponded to a system of rituals which organized consent for the anatomical spectacle and the knowledge derived from it.³⁴

At the end of the 16th century, when the anatomist Giulio Casseri was teaching at Padua, the idea was proposed to hold solemn funerals at the Church

32 ASV, Riformatori dello Studio, b. 76 c. Cf. Barbaro, *Pratica criminale*, Venezia 1739, cc. 172–173; Morgagni, *De sedibus et causis morborum*, Preface; Vanzan Marchini, “L’anatomia della realtà,” 393; Buganza, “La scienza strumento dell’interesse,” 130; Buganza, “Zorzi Marenzi,” 69; Buganza, “Tra scienza, avvocatura e diritto,” 283.

33 Coluccia, “Indagine,” 147; Prospero, “Prefazione,” 256; Buganza, “Il moto accelerato del sangue,” 32; Buganza, “Tra scienza, avvocatura e diritto,” 281; Buganza, “Chimica forense,” 173; Pastore, *Il medico in tribunale*, chap. IV; Pastore, *Le regole dei corpi*, 85–99.

34 Carlino, *La fabbrica*, 261; Carlino, “Il cadavere esibito,” 412; Carlino, “Religione, igiene, anatomia,” 108–109.

of Santa Maria dei Servi for the corpses used in lessons that were held “uti antiquis moris fuit.” This idea was, in fact, even mentioned in the university statutes. Its declared purpose was to dispel the popular rumor that the bodies, after being dissected, were thrown into the river or given to dogs as food. The return of this ancient custom was singularly favored by German students. The *Natio Germanica*, one of the strongest ultramontane student communities, although mostly reformed, considered this religious ceremony the most effective means for creating the possibility of a limited but legitimate practice of anatomy for which it would be easy to obtain bodies for numerous dissections. These bodies were in constant demand with German students, because for them anatomy was considered an innovative way of teaching in Italy, judging by the successes in Padua and Bologna.³⁵

Despite these good intentions, the custom soon fell into disuse. Even in Rome, there were fewer concerns about applying statutory regulations that organized charitable practices for the souls of dissected bodies after 1573.³⁶ Eighty years later, the Bishop of Cittanova Jacopo Filippo Tomasini – who was one of the most successful historiographers of the University – wrote in his *De Gymnasio Patavino* that the ceremony had been reduced to that of a private funeral at the Church of San Martino, which was located next to Palazzo del Bò at that time. According to Tomasini, in the past the religious ceremony, like all post-mortem masses, was held at the Church of the Eremitani or in the Basilica del Santo, with the involvement of many priests, professors and students. Candles were lit and a funeral oration was read by the Professor of Belles Lettres.³⁷ The attention given to the dissected bodies is not surprising considering that, according to the Jesuit author of one of the most popular handbooks for consoling the damned, Giacinto Manara, the pieces of the dissected body were either distributed among those present, or hoarded by the same for later use in producing medicaments in 1658.³⁸

The erudite chancellor of the *artista* college, Carlo Torta recovered the solemn practices of Christian burials. In the second half of the 17th century, Torta spoke about this to the anatomist from Verona Giacomo Pighi following Tomasini's reading, and said that it would be necessary to “introduce some Christian compassion that would partly soften the inconsolable misery felt by the relatives of the dead.” The chancellor proposed a return to the ancient

35 ASV, Riformatori dello Studio, b. 86, ‘writing’ of Giovanni Battista Morgagni, August 1725; Cf. Sterzi, *Giulio Casseri anatomico e chirurgo*, 34–35 for the Latin quotation, 67–69, 73; Semenzato, “Testimonianze,” 132; Buganza, “Tra scienza, avvocatura e diritto,” 251.

36 Carlino, “A Theatre of Cruelty and Forgiveness,” 157–166.

37 Tomasini, *De Gymnasio Patavino*, 80.

38 Lazzarini, “Le radici folkloriche dell’anatomia,” 214–217.

custom of holding funeral services and burying the anatomical remains of the bodies, the integrity of which had been violated, at the Church of San Martino. He also proposed taking up the habit of funeral orations filled with morality. In spite of Pighi's enthusiasm for this initiative, which was supported at his own expense, began with the burial of the bones in the church, followed by a sung mass and other supplementary masses. Despite his intentions he did not manage to involve the authorities in the allocation of funds as he died before he was able to do so, in 1682.³⁹ In this context the idea of suffrage masses was a form of atonement for the sinful souls of those condemned to death, and the bodies which were supplied by law in the 16th century were subsequently rehabilitated in the 17th century; they were thus protected from the dangerous actions carried out on them by anatomists.⁴⁰

It is interesting to note that a supplication, written by two doctors Domenico Marchetti and Michiel'Angelo Molinetto at the time, expressed the same concern as chancellor Torta had. This time the discourse was centered on the reintroduction of decorum in the anatomical theater, and had the intent of increasing the collaboration between students who were there to learn about the structure of the body. The professors were deeply discouraged because the usual supply of condemned bodies had dwindled significantly, and was at this point reduced exclusively to bodies provided by the hospital, which were in extremely bad condition and conforming to the standards necessary for their work. Unfortunately, by now the allocation of the bodies had been made difficult by the superstition of the common folk, who gathered in strong, often armed factions, composed of the relatives of those who died in dreadful conditions, who were ready to prevent their bodies from being used in the anatomical theater, and made the professor's job of practicing anatomy intermittent and risky.⁴¹

Additional masses for the souls of bodies that had been subjected to dissection represented the most common form of university propaganda against family members' refusal to permit the use of the corpses.⁴² This practice was part of a more general revitalization project of culture and institution by the Padua Studio also including anatomy. The magistrature of the Reformers was

39 ASV, Riformatori, b. 432, letter of Carlo Torta, 21 December 1689; "introdur qualche christiana pietà che valesse a radolcire in parte all'inconsorabil cordoglio che sentivano li parenti de' quei defunti." Cf. Benetti, "Vita universitaria," 147–148; Darmon, "Il furto dei cadaveri," 104; Richardson, *Death, Dissection and the Destitute*.

40 Carlino, *La fabbrica*, 120–126.

41 ASV, Riformatori dello Studio, b. 421b., undated supplication of professors Domenico Marchetti and Michiel'Angelo Molinetto to the Riformatori.

42 Sterzi, *Giulio Casseri anatomico e chirurgo*, 34–35, 67.

aimed at enhancing the wonderful *artista* student union, and in particular at augmenting the list of pro-chancellor unionists of the *artista* university Marcello Condopidi, who had not been in office for a long time. Merit must be given to Condopidi who, in addition to proposing a series of improvements for study in 1701 promoted Clement XI's *breve* regarding suffrage masses for bodies that had been dissected at the Church of San Martino.⁴³

An initiative for promoting public dissections was reasonable in a period in which finding bodies to work on was more vehemently opposed by the population of Padua than it had been in Vesalius's times. When faced with armed students trying to forcefully seize the body of a Jewish man, Graziadio Levi, who had died in the ghetto of Padua in 1680, the Council of Ten strongly intervened. The judiciary that took care of the political justice later welcomed a petition by the Padua nobility that highlighted how in this instance "news, religion, public trust, safety, the freedom of people, homes, those living and those dead" were at play. Essentially, the Council of Ten decided to respect the burial rites of Jews, and above all, the regulations of 1672 which had been issued by the Venetian magistrate for health were even extended to Padua, dictating that the bodies of Jews were to be preserved for the capital against the interventions of dissectors.⁴⁴ In a way, the regulatory intervention of the powerful Council explained the absence of serious popular protests against anatomists and surgeons like to ones of England and France in the 18th century, but also in 17th-century Bologna.⁴⁵

Carlo Torta, the chancellor who was so well versed in the history of the University of Padua, summarizes the state of the matter at the start of the century. More than fifty years earlier, so much freedom had been given around the dissection of bodies – both public and private – that according to the ancient statutes the bodies were mainly those of condemned people, and of some of the lower social classes who lived in the city and the domain. Dissection was certainly a great spectacle, especially at the beginning of the year in which

43 ASV, Riformatori dello Studio, b. 77, letter to the podestà of Padua, 3 September 1701. Riformatori dello Studio, b. 188, letters of the podestà of Padua, 23 August and 13 September 1701; letter of the rectors, 10 October 1701; *raccordo* of the prorettore and Mayor of the *artista* college Marcello Condopidi, 4 September 1701. See also ASV, Riformatori dello Studio, b. 77, letter to the chancellor of the *artista* college Carlo Torta, 3 September 1701 and ASV, Riformatori dello studio, b. 188, letters of the chancellor of the *artista* college Carlo Torta from Padua, 18 September 1702: Cf. Tosoni, *Della anatomia degli antichi*, 117; Carlino, *La fabbrica*, 117–126.

44 ASV, Consiglio dei X, *Parti comuni*, b. 735, deliberation of the Council of Ten, 27 February 1679 *more veneto*: "novità, religione, pubblica fede, sicurezza, di libertà alle persone, alle case, a vivi, a morti"; Giro, "Incisore," 81.

45 Carlino, *La fabbrica*, 104.

large numbers of German students came to Padua for these lessons. The obstacles at the start of the 18th century were different and well-established. As already seen, once the students had snatched a large number of corpses of the same religion, Jews were completely exempt from public dissection thanks to a generous decree by the Council of Ten. With this example in hand, the craftsmen – who were organized in *fraglie*, i.e. an association of the trade, and were, in turn, united with artillerists and the *fraglia spirituale di San Giovanni Evangelista, detta comunemente della morte* (School of Saint John of Death) – claimed that if the Jews were exempt then even they and their relatives, as Christians, ought to be immune from the practice of body snatching. Serious armed incidents, involving the use of an arquebus, between craftsmen and scholars led the Rectors to taking on the matter themselves. The Venetian aristocrats decided to limit corpse supplies to the hospital of San Francesco only. However, there were many problems with this source. On one hand, bodies were not always available at the most opportune moment, and in any case, the sick were already in extremely bad health, and essentially presented as corpses even before they died. In a manner of speaking, this is evidence of the poor state of the conservation of bodies at the time. On the other hand, the disused practice of pious masses had to be revived, because kindness, according to chancellor Torta, “partly softened that natural antipathy” towards public dissection. Moreover, the religious functions had been revived for several years, and were even strengthened, with masses sung to San Martino and with new financing, despite the fact that there was little money available because the majority of scholars were poor at the start of the 18th century.⁴⁶

The old hostility towards anatomy did not soften because of these new directions. Indeed, the resistance by those who ran the San Francesco Hospital against using the bodies of the ill for anatomical studies was compounded by jurist corporation and extremely important, not only because of the repulsion and discomfort shown towards the corpses of non-criminal background, but also of the claimed ‘cruelty’ of anatomists towards them. This attitude was based on a prejudice that ran contrary to the required work, which was also almost considered dishonorable because of its direct contact with blood. The tradition of these ethical-anthropological reasons had connections with the Church Fathers, such as Saint Augustin. Actually, until the end of the 16th century, the objections of the elderly who were treated at the hospital and feared being dissected after they died, were heard by the authorities that managed the hospital. In the 18th century, the hospital’s directors – significantly including

46 ASV, Riformatori dello Studio, b. 78, letter to the chancellor of the *artista* college, Carlo Torta, from Padua, 27 December 1704: “radolciva in parte quella naturale antipathia.”

doctors from the *legista* sacred college who could then serve as judges, assessors in some legal courts or even teach criminal law – opposed the dissemination of the teachings of anatomy, and not in a very inconspicuous manner.⁴⁷

In November 1732 this concept was expressed well by the physician Girolamo Vandelli, who was responsible for carrying out surgery on corpses supplied by the hospital to teach the new subject to the students. The doctor held his lessons in the Romagna vernacular but could not cover the theory alongside the practice on a dead body, in the same manner and with the same diligence, as if carrying out surgery on a living body. Vandelli confessed to the secretary of the University Reformers that the San Francesco Hospital administrators did not want to change their mind and permit the seizure of corpses. As part of the *legista*, and not the *artista*, Sacred College was known to “show[...] great repugnance” to the practice of forensics, either due to a common human sentiment, in which they considered it as a “type of cruelty,” or because they were not very cooperative and haughty, and wished to be indulged by Vandelli with continuous pleas. This predicament was overcome only by designating a specific architectural space for dissecting, and with the union and force of the two subjects of the pathological forensics promoted by Morgagni and the surgery on corpses taught by Vandelli, which had great repercussions for legal medicine. In a perspective which does not only belong to the history of mentality, but which also includes the obstacles material to the knowledge of anatomy, the problem was about the appropriation, and resistance to the use, of dissected corpses by officials, lawyers, doctors and theologians.⁴⁸

In the late 1760s, the issue was still alive and palpably felt in the *Essays around the systematic things of the Studio of Padua*, written by the chancellor of the *artista* college Matteo Giro, who devoted a part of this work to pious functions for the souls of anatomized bodies. Yet the situation was comparatively quite different from that of the end of the 17th century: “Meanwhile corpses go to the tomb no longer with interiors, no longer with processions, no longer with the church. They are given tacit funerals in a field cemetery, transported there inside matting in the darkness of the night. What changes!”⁴⁹ The changes that had been made at the start of the century when chief magistrate Giustiniani asked for the bags to be replaced with boxes reappeared. The disputes between

47 Giormani, “Tre secoli di storia,” 170; Galtarossa, *Medicina repubblicana*, 77–78.

48 ASV, Riformatori dello Studio di Padova, b. 15, 40–41, letter of Girolamo Vandelli to the Riformatori dello Studio, 26 November 1732: “una specie di crudeltà”; Giormani, “Tre secoli di storia,” 169–171; Maddalena, “Dal San Francesco all’Ospitale civile,” 96–99.

49 Giro, *Saggi*, 82–83: “Intanto li cadaveri vanno al sepolcro non più con apparato, non più con pia pompa, non più nella chiesa. Si da loro tacita esequie in cimitero prativo, ivi trasportati entro una stuoia nell’oscurità della notte. Che cambiamenti!”

the social orders of the city were not laid to rest – they wanted the available bodies. The entry for *corpse* in the *Dictionary of Veneto Law* (1779), which was written by the lawyer Marco Ferro and represented an attempt to integrate the Venetian with the common law, confirmed that the delivery of the corpses of hanged individuals to doctors and surgeons for studying anatomy was based on doctrinal reasons. In spite of this, the beginning of the text claims that the corpses were part of the sacred and religious sphere.

When the Republic of Venice fell in January 1794, a dispute arose between the religious Brotherhood of Saint John of Death and University professor Leopoldo Caldani regarding the authority over the body of one of their brothers, who died at the Hospital of San Francesco. Caldani confirmed that if “such a brotherhood, which receives anyone at such a cheap price, was never by chance satisfied, there would be no place for the study most useful to doctors, namely anatomy.”⁵⁰ Caldani published his scientific and literary essays at the Academy *patavina* in 1786. In the same year, Caldani openly confronted the scientific-forensic question, and also wrote about his experience as a consultant of the *maleficio* local court. He obtained confirmation of the availability of bodies for anatomy with the support of the captain of Padua and Angelo Diedo, the vice-chief magistrate. However, at the end of the 18th century, the transition towards the autonomy of legal medicine was now assured. From the 1880s onwards, Camillo Bonioli taught forensic medicine at the University of Padua. Nevertheless, the resistance against anatomical practice persisted. These conflicts were divided between two sides, namely the side that snatched bodies and with them knowledge, and that could derive and by consequence corroborate the medical expertise, and the other side, which worried about the fate of souls and the mortal remains of the same deceased that had already lost historical significance.⁵¹

50 ASV, Riformatori dello Studio, b. 442, letter of Leopoldo Caldani, 18 January 1794: “una tale fraglia, che riceve chiunque a vil prezzo, venisse per caso mai esaudita, non v'è più luogo certamente allo studio il più utile ai medici, cioè l'anatomia.”

51 Buganza, “Chimica forense,” 173–176; Ferro, *Dizionario del diritto comune e veneto*, 296–298; Buganza, “Iatromeccanica,” 32; Buganza, “La prevalenza del lessico scientifico,” 162–167.

PART 3

Corpses and Evidences



Reading Moral Conduct and Physical Characteristics: the Classification of Suicide in Early Modern Europe

Alexander Kästner

8.1 Introduction

In January 1714 a bloody scene shocked the small village of Ottendorf in the Electorate of Saxony.¹ A bedridden peasant's wife, Elisabeth Nitzschin, had stabbed herself with a sharp blade. Having cut open her abdomen, she died of her wounds the next day. Immediately after Elisabeth's act of self-mutilation, her husband called the local pastor, since the record suggests that no physician or barber surgeon was at hand. After questioning Elisabeth, the pastor joined with members of the community to pray for her soul throughout the night. Although the patient temporarily lost consciousness, the pastor later reported to church authorities that when she opened her eyes one last time the next morning, she repented her deed and promised to keep Christ in her heart. Thus, it was believed that she died a good Christian death. In consideration of both her previous Christian life and the circumstances of her death, the upper consistory in the nearby electoral capital of Dresden decided to bury the corpse in the graveyard, albeit silently without any audience or ceremonies.

Of interest here is not so much whether Elisabeth Nitzschin intentionally killed herself or whether her case should rather be interpreted as misfortune resulting from a failed attempt at a medical cure. The woman had reportedly complained of stomach pains for weeks and explained to the pastor that she had only wanted to cut the source of her aches and pains out of her body.² The situation was, however, unambiguous for the pastor and hence the church

¹ Ephoralarchiv Pirna, Ottendorf, No. 4260.

² Cf. Duden, *Geschichte unter der Haut*, 94 and Jütte, *Ärzte*, 87 on the early modern culture of medical self-treatment. In a more detailed discussion of this case I have argued to take this self-statement seriously, considering the early modern culture of self-care especially by women. See Kästner, *Tödliche Geschichte(n)*, 77–83.

authorities: Elisabeth Nitzschin had killed herself. Nonetheless, because she had led a good Christian life and her last words had borne witness to her dying a good Christian death, it was decided not to treat her suicide as a felony against herself. Indeed, contemporary theological discourse generally argued that good Christians would be unable to premeditatedly commit such a horrible crime and heinous sin as self-murder (see below).

After all, Elisabeth Nitzschin's case is exceptional, for more often than not the victim had neither the chance to utter last words of repentance nor give any explanations that could be used to support third party interpretations. In a typical suicide case officials had to reach a verdict primarily based upon witness accounts of the deceased's life. Apart from that, it was debatable whether and how physical evidence found on or near the corpse mattered. In the case of Elisabeth Nitzschin like in the vast majority of suicide investigations in rural areas neither an official external examination of the corpse nor a post-mortem had been carried out, despite the fact that the corpse had been put on trial.

The intent of this article, therefore, is to re-contextualize premodern anatomical and forensic practices in relation to the corpses of suicides within a broader discourse about the meaning of suicide. Reading the body of a suicide victim was not a professional activity of physicians alone, but also a practice largely grounded in legal and theological debates. Thus, we need to analyze these debates in order to understand how early modern lawyers and theologians each tried to explain specific cases of suicide and how those interpretations changed from the 16th to the 18th century. Only then we are able to better understand those interpretations and ideas that physicians also referred to.

Evidently, these debates produced a specific premodern typology of suicide and suicidal behavior. Over time they also led to a struggle for the prerogative of interpretation. Thus, two aspects of officials' deliberations are explored below. I first show how protagonists developed specific criteria and procedures based on ancient and medieval traditions and customs, in order to determine whether a suicidal act could be deemed self-murder or not. This section also includes analysis of the significant influence the Reformation had on contemporary beliefs about suicide. Moreover, it provides evidence for the fact, that forensic knowledge had been peripheral if not negligible when it came to suicide in the 16th and 17th centuries. Putting the corpse on trial actually meant to put biographies on trial. Secondly, I address the question of how then, contingent upon the emerging field of medical policy, medical expertise, and the kind of evidence its practitioners could provide, was bound not only to previous knowledge but to the very principles and to the epistemology of legal and theological debates.

8.2 The Crime of ‘Self-Murder’ and Its History

It is clear that most people in early modern Europe considered suicide to be both “the worst sin and the gravest crime.”³ Of all impious behavior and conceivable capital crimes, suicide was judged to be the most villainous and malicious. It was argued that persons committing suicide not only killed their body and ended their temporal life but also murdered their soul, thus forfeiting eternal life without any chance for repentance. This dictum not only exemplified how interwoven contemporary law and theology were, but influenced popular ideas regarding suicide and also provided the basis for legal assessments. Evidence of the latter can be found in the nuanced analyses of suicide cases which appeared in influential juristic compendia such as Joos De Damhouder’s (1507–1581) *Praxis rerum criminalium* or Benedict Carpzov’s (1595–1666) *Practica nova*.⁴

Latin terms such as *scelus* (crime) or *facinus scelestissimum* (the most wicked of crimes) were regularly used to denote suicide as both a public crime and an act of godlessness. Early modern authors hereby followed long-established theological and canonical condemnations of premeditated suicides.⁵ Suicide had been denoted as the most wicked of sins by the first church fathers.⁶ Augustine of Hippo (354–430) is reputed to have been the first to systematically explore suicide from a Christian point of view. In *City of God* he declared every suicide a capital crime and developed the very powerful concept of suicide as both a sin and a crime. By analogy with the Decalogue’s prohibition of killing he declared, “qui se ipsum occidit homicida est” (he who takes his own life is a murderer).⁷

3 As Barbagli, *Farewell to the World*, appropriately entitles chapter 1 in his path-breaking comparative study on the history of suicide in Western and Asian societies.

4 Carpzov, *Practica nova*, P. 1, Qu. 11, n. 25; De Damhouder, *Praxis rerum criminalium*, chap. LXXXX, n. 2.

5 Augustinus, *De civitate Dei*, 1.25. Luther, *Werke (WATi)*, vol. 5, 374; Schimmer, *Das von einem Mord-Kind erschreckte Wittenberg*, fol. A3^v. Above all, see Murray, *Suicide in the Middle Ages*, vol. 2, 101–121, 189–395. Cf. additionally Barbagli, *Farewell to the World*, 49–58 and his points about early Christian ideas about emotions, sins and suicide; Lind, *Selbstmord in der Frühen Neuzeit*, 21–31; Luef, “Punishment post mortem,” 557–558; Pfannkuchen, *Selbstmord und Sanktionen*, 33–46.

6 Cf. Busche, “Darf man sich selbst töten,” 65 (referring to Lactantius, *Institutiones divinae*, 3, 18); Junghanß and Walther, “Du sollst nicht töten,” 60.

7 Augustinus, *De civitate Dei*, 1.17. Whether this refers to the Fifth or the Sixth Commandment depends on various ways of counting in different Christian confessions.

But it was not until the end of the medieval period that new developments in penal law resulted in secular punishments of suicides in addition to ecclesiastical sanctions. Since the perpetrator deprived his lord of future services, suicide was increasingly deemed to be a felony against the crown. According to Alexander Murray suicide became the most prominent officially punished capital crime in the Middle Ages. Nonetheless it is worth noting that Murray's research primarily focuses on France and England, both countries with strong centralized governments and royal fiscs. In examination of other territories, historians have detected a wide range of attitudes and behaviors against suicides in legal practice and customs which depended as much on different statutory provisions as on local concerns, the suicides' infirmities, and even the social position of jury members in coroner's inquests.⁸ Nonetheless, the modern understanding of the term "suicide" derives from the early modern concept which reflected upon the correlation between will and action. In contrast the medieval Latin terms *suicidium* and *suicida* referred not to the act itself, but to the person who committed the deed.⁹ Nominalizations like the German word *Selbst-Mord* (self-murder) reflected the infliction of increasingly severe punishments for premeditated suicides throughout the 16th and 17th centuries. However, historians should also consider the striking early modern preoccupations with honor, ritual pollution, spiritual and corporeal impurity to achieve a deeper understanding of this development.¹⁰ In contrast, the Russian term *samoubiistvo* was not coined until the early 18th century, when penal law reforms introduced the western concept of suicide as a public crime into Russia.¹¹

Apart from debates from late antiquity, however, the pivotal reference point for all later authors was Thomas Aquinas (ca. 1225–1274), who declared in *Summa theologiae* that a person committing suicide burdens himself with a

8 Butler, "Local Concerns"; McNamara, "The Sorrow of Soreness"; Murray, *Suicide in the Middle Ages*, vol. 1, 120–250. On Sweden, see now the fine piece of work by Evelyne Luef, *A Matter of Life and Death* (who compares Sweden and Austria) and the extensive study of Riikka Miettinen, *Suicide in Seventeenth-Century Sweden*.

9 Murray, *Suicide in the Middle Ages*, vol. 1, 28–40.

10 See the chapters in Burschel and Marx (eds.), *Reinheit*; further Lederer, "The Dishonorable Dead"; Stuart, *Defiled Trades and Social Outcasts*.

11 On the linguistics of suicide cf. Bähr, "Between 'Self-Murder' and 'Suicide,'" and the literature cited there. Barbagli, *Farewell to the World*, 83–84. On Russia, see Morrissey, *Suicide and the Body Politic*, 20. In a path-breaking study published in 1990 Michael MacDonald and Terrence R. Murphy have already pointed out, that in England suicides were punished more severely between 1500 and 1660 than before and afterwards; see their *Sleepless Souls*, 15–76.

threefold guilt. According to Aquinas, self-murder is first an offence against oneself, for it is contrary to the divinely inspired natural law of self-preservation, self-esteem and self-love (*caritas*). Second, it is an offence against God, who alone has the final authority over life and death. And third, committing suicide wrongs society and – considering the political implications and Aristotelian roots of *communitas* – the state. As Hubertus Busche has stressed, Aquinas wrote that every man was intended to be a humble servant in the body politic. From this starting point, it was a small step to severely punish self-murder as though it were a violent felony.¹²

Augustine's and Aquinas's points were essential to the whole early modern debate. And so was a remarkable focus on suicide methods in erudite discourse, often only faintly implying either any circumstances or the victims' state of mind. Iberian late scholasticism, for instance, dealt with issues of natural law and expanded the problems of everyday life to include suicide. As their works were inspired by Thomas Aquinas, it comes as no surprise that the aforementioned threefold idea held sway. Domingo de Soto (1494–1560), one of the most important and influential protagonists of the so-called School of Salamanca, reinforced the core of Aquinas' arguments and unambiguously emphasized that a suicide has to be regarded as a felony against the state, or *res publica*.¹³ This and other examples clearly demonstrate that philosophy, moral theology, and secular criminal law were intrinsically interwoven.¹⁴ Along with other types of homicide, the culpability of self-murder resulted from a violation of divine order, which was assumed a necessary condition for any temporal order. Moreover, the convergence of sin (*peccatum*) and crime (*delictum vel crimen*), or the transgression of divine order and resulting exclusion from the Christian community, laid one foundation for a systematic conviction of suicide in early modern criminal codes.

A second foundation was deduced from considerations about the confiscation of convicts' goods in Roman law. Even though civil law had genuinely intended to protect property-owning citizens against the "voracious fisc" of the Roman emperors, tensions developed regarding suicide which derived from the fact, that killing oneself cuts one off from society. Here Alexander Murray

12 Cf. Aquinas' debate of the question "Utrum alicui liceat seipsum occidere," in which he was influenced by Aristotle's ethics; Aquinas, *Summa theologiae*, II–II, Qu. LXIV, Art. v. See also Busche, "Darf man sich selbst töten," 68 and 75 on Aquinas' use of the term *communitas*; Hartung, "Über den Selbstmord," 35; Murray, *Suicide in the Middle Ages*, vol. 2, 229–31.

13 Soto, *De iustitia*, Qu. I. Art. v.

14 For the School of Salamanca, see on this point Schnyder, *Tötung und Diebstahl*, 18–20.

succinctly states: “That is the law’s affair. This is why suicide puzzles law; and it is why, in particular, it puzzled Roman law.”¹⁵ To paraphrase: It is not so much Roman lawyers’ debates as well as their legal fictions¹⁶ about the right to confiscate the goods of suicide victims or other culprits that should concern us here, especially when slaves and soldiers were involved. Instead of, it is important to note that studies on the early modern reception of Roman law reveal that most later summaries and commentaries of the civil law determined that people who committed suicide were criminals, on the basis of the contemporary perception that suicide was intrinsically wrong.¹⁷

A closer look into the legal development of the late medieval and early modern Holy Roman Empire reveals a comparatively delayed codification and the striking influence of customary, mostly unwritten laws. Confiscating the goods of a suicide was primarily discussed in legal tracts which criticized and impugned such regulations or at least proposed to limit their application to prisoners – specifically convicted criminals – who killed themselves. Among treatises implicitly disputing the overall criminalization of suicide were, according to the extensive analysis of legal historian Karsten Pfannkuchen, some versions of the *Sachsenspiegel-Landrecht* (ca. 1220–35), especially components of its glosses and commentaries, the *Lübecker Rechtsbuch* (1254), the *Meißner Rechtsbuch* (1358–87), the nine volumes of the *Magdeburger Recht* (1400–02), the *Constitutio criminalis Bambergensis* (1507) and finally the *Constitutio criminalis Carolina* (1532) – also known as the first imperial code of criminal procedure.¹⁸

It was even recognized by some early modern lawyers that imperial law followed the principles of Roman law on this topic.¹⁹ Nonetheless, the *Carolina* restricted the legitimate confiscation of goods of a suicide to those cases where such a confiscation was the rightful punishment for a crime committed prior to death. Unsurprisingly, exactly which crimes were to be punished by confiscation after a prisoner’s suicide remained a controversial subject.

15 Murray, *Suicide in the Middle Ages*, vol. 2, 152–188, quotes on 159 and 166.

16 E.g., to assume that those who commit suicide are already convicted, sentenced to confiscation but cheating the fisc by taking their own lives.

17 Some legal historians have argued that early modern lawyers may have even deliberately misinterpreted the original Roman law to bring it in line with existing practices which assumed the culpability of suicide; Cf. Pfannkuchen, *Selbstmord und Sanktionen*, 46. Similar Holzhauser, “Der Suizident in der Rechtsgeschichte,” 63. See also Lind, *Selbstmord in der Frühen Neuzeit*, 32–33 and Murray, *Suicide in the Middle Ages*, vol. 2, 174–177.

18 Pfannkuchen, *Selbstmord und Sanktionen*, 57–71; Lind, *Selbstmord in der Frühen Neuzeit*, 31–33.

19 Gerhard and Kromayer, *Dissertatio iuridica de crimine et poenis proprecidii*, 32–34.

This was a contrast to the *Tiroler Halsgerichtsordnung* (1499) and the *Tiroler Landesgerichtsordnung* (1526) which had allowed indiscriminate confiscation of goods after all suicides. The *Carolina*, however, explicitly annulled such territorial statutory provisions or any other similar customs.²⁰ But words matter. Thus, it was a momentous decision to entitle *Carolina's* article 135 with the misleading phrase, the “sentence for killing oneself” (“Strafe eigener Tötung”). Although the title reflected contemporary customs and values, the article itself declared that a sentence was to be imposed only for crimes committed prior to a suicide.

Indeed several commentators adopted the classification of the *Carolina*, which grouped suicides among other types of homicide. They also approved of the restrictions concerning confiscation. It is remarkable, however, that they also added provisions of customary laws to punish suicide. For instance, authors falsely claimed that the *Sachsenspiegel-Landrecht* had forbidden honorable burials.²¹ Even though suicides had been strictly condemned, it seems that dishonorable burials of suicide victims did not regularly occur until the late medieval period. Furthermore, jurists added specific amendments in their comments on the *Carolina*. A syndic in the Bohemian territory of Upper Lusatia, Heinrich Rauchdorn published a guide to legal proceedings (“*Practica und Process Peinlicher Halßgerichts Ordnung*”) in 1556 with the intent of standardizing and improving judicial practice in German territories. At first glance, his passage dealing with the confiscation of goods after a suicide is close to the text of the *Carolina*. But he amended the passage, stating that parasuicide should be treated like an injury or a castration of another person. Thus, those attempting suicide would be sentenced to death by sword. This interpretation and its accompanying punishment had been previously discussed by other influential authors such as the much-cited Italian lawyers Giulio Claro (1525–1575) and Tiberio Deciani (1509–1581) – a fact that points to trans-national legal discourse.²² Finally, Rauchdorn also added a separate note in which

20 “Vnnd darwider keyn alter gebrauch / gewonheyt oder satzung statt haben / sonder hiemit reuocirt / cassirt und abgethan sein / vnd inn disem vnd andern dergleichen fellen / vnser Keyserlich geschriben recht gehalten werden”; *Constitutio criminalis Carolina*, art. 135 (ed. Mainz, 1533), fol. XXIX^r.

21 Cf. Geiger, “Der Selbstmord im deutschen Recht,” 4–5. A prominent passage can be found in Carpzov, *Practica nova*, P. I. Qu. II. n. 30. For later examples, see for instance Mirus and Ulmann, *De autocheiria dissertatio ethica*, fol. B2^r; Witzleben and Scherff, *Dissertatio moralis de autocheiria*, § XV.

22 Clarus, *Opera receptorum sententiarum*, Lib. v. § Fin. Pract. Crim. Qu. LXVIII n. 7; Decianus, *Tractatus criminalis*, T. II. Lib. IX. Cap. I. n. 33.

he declared that secular authorities should punish premeditated self-murder with common, likewise dishonorable means:

Those, who deliberately kill themselves shall not be buried, but pulled out [of their houses] under the thresholds or one shall cut down the trees [on which they hang]. One shall drag their bodies to the gallows and hang them headfirst on one leg to cause disgust. At certain places they are buried or burned beneath the gallows.²³

As Vera Lind has pointed out, such examples illustrate that early modern penal law commentators used apotropaic magic-like rituals to corroborate the general culpability of suicide.²⁴ In this way, customary law found its path into the learned legal discourse. At the very same moment when the crime of self-murder was defined in penal law, law-practitioners like Rauchdorn wove juridical considerations, Christian moral conventions and legal customs together, thereby adopting concepts from moral theology and canon law. Strikingly though, legal discourse was primarily concerned rather with legal conflicts resulting from a supposed act of self-killing than with medico-legal investigations into the nature of wounds and physical evidence suggesting any other lethal causes of a death than suicide. And we soon see why, because the whole debate was principally bothered about the question, whether an act of self-killing were to be judged as indefensible self-murder or could be read as another kind of pardonable suicide. Until the 18th century, to decide whether one or the other was the case, did usually not involve elaborated physical examinations to include post-mortems in order to prove any scientist.

After all, legal scholars and jurists fundamentally intended to prevent suicides by threatening dishonorable treatment and bodily desecration of the corpse. Such reasoning corresponds to the observations of legal historians that deterrent effects of punishment played an increasingly important role in 16th-century criminal law.²⁵ Consequently, legal scholars preferred the

23 "Es sollen die so sich selbs fursetzlich ertöden nicht begraben/ sondern vnder schwellen ausgezogen/ oder die bewme mit jhnen vmbgehawen/ an den galgen geschleiff/ vnd daselbst mit einem beine/ andern zu abschewe auffgehungen werden/ an etlichen örten werden sie vnder den galgen begraben/ oder darunter vorbrennet"; Rauchdorn, *Practica und Process* (ed. 1564), fol. Nii^r (in the third edition, published in Leipzig in 1599 then entitled "Wie es mit denen zu halten/ so sich selbst vmbringen/ oder am Leibe schaden zufügen," 372–373).

24 Lind, *Selbstmord in der Frühen Neuzeit*, 38; Pfannkuchen, *Selbstmord und Sanktionen*, 47–51; Geiger, "Die Behandlung der Selbstmörder"; Geiger, "[Art.] Selbstmörder."

25 Cf. Schnyder, *Tötung und Diebstahl*, 144–177.

so-called donkey's funeral – the burial of a corpse in the knacker's yard or another dishonorable place – as a punishment for suicide. Renowned lawyers like Benedict Carpzov preferred it over other forms of bodily desecration and considered it to be sufficiently horrifying to prevent others from committing suicide.²⁶

In his annotation of the *Carolina*, Rauchdorn presumably drew upon the work of the famous Flemish lawyer Joos De Damhouder, who had published the widely adopted *Praxis rerum criminalium* two years previously. In this work Damhouder used many examples of customary law in the Seventeen Provinces (Habsburg Netherlands). Rauchdorn's discussion of self-injury and castration is an almost word-for-word copy of Damhouder's. The Flemish jurist himself reiterated an older, though conclusive argument of Filips Wielant (ca. 1441–1520), who had noticed a significant gap between the customary undifferentiated punishment of suicide on the one hand and a legally required, nuanced and sophisticated treatment on the other. Although the point was of no concern for Rauchdorn in his selective reception, Damhouder and Wielant both claimed that according to customs and traditions the corpses of suicide victims were uniformly “put on display on a gallows formed by a two-pronged stick.”²⁷ Their goods were also confiscated, unless they had been free citizens of one of the free cities (e.g., Bruges or Ghent), since they were generally exempted from such fiscal punishments.²⁸

It is worth mentioning other important critics here. As early as the 14th-century, French lawyer Jean Boutillier (ca. 1340–1396) had complained about legal practices in the northern territories of France, because these did not distinguish between the suicides exempt from prosecution (i.e., caused by an infirmity of the mind or furor) and a culpable self-murder (i.e., committed out of desperation, which by implication meant a state of godlessness, or due to a guilty conscious). Flemish legal practice was apparently similar, since Mary of Burgundy (1457–1482) not only criticized this practice but also tried to change it – unsuccessfully – in the Great Privilege of 1477 awarded to the provinces of Holland and Zeeland. She insisted that suicide could only be punished after a judge had pronounced the perpetrators guilty. For this purpose the judge was

26 Carpzov, *Practica nova*, P. I. Qu. II. n. 31: “Estque introducta eo fine, quo alii exemplo tam tristi deterreantur, iisque horror injiciatur.”

27 Bosman, “The Judicial Treatment,” 11.

28 De Damhouder, *Praxis rerum criminalium*, chap. LXXXX n. 6–7. Michael Beuther's incomplete German translation, published in 1566, lacks this constraint; cf. Beuther, *Praxis rerum criminalium*, chap. LXXXVIII [sic!], fol. 164^v. See also Bosman, “The Judicial Treatment,” 10–15; Deschrijver, “From Sin to Insanity?,” 985; Vandekerckhove, *On Punishment*, 73–77.

required to prove the suicide victim's premeditation and more specifically his/her malice aforethought (*malum propositum, dolus malus*, or intention to kill).²⁹

Thus, the justification for punishing certain suicides was tied to well-documented legal proceedings in which malice aforethought was to be legally determined. According to criminal law historian Lieven Vandekerckhove this requirement marked an "evolution from an unconditional to a conditional punishment of suicide."³⁰ Alexander Murray shows, however, that such a distinction had already been introduced into canon law, adopted as Canon sixteen of the early medieval Braga Council of 561.³¹ As a result, proving a suicide victim's malice aforethought became the essential criterion to ascertaining his guilt and judicially punishing his corpse. Thus, obviously, psychological considerations about motives and causes took center stage in suicide investigations and legal proceedings.³²

The significance of malice aforethought is evident in the common distinction between premeditated suicide on the one hand (*felo de se*) and suicide committed because of an infirmity of mind (*non compos mentis*), even though there was no distinct semantics of self-murder and suicide prior to such classifications.³³ The Prussian *Landrecht* (territorial law) of 1620 explicitly used the phrases *böser Fürsatz* (malice aforethought) and *boshafte Gemüt* (wicked disposition) to legitimize the culpability of premeditated suicide.³⁴ In Catholic Bavaria, Munich's privy council used the reconstructed previous mental state as the decisive factor when determining the disposition of the corpse after suicides, as David Lederer has pointed out in his well-documented study.³⁵ In Saxony, this consideration influenced actual legal practice well before the

29 Vandekerckhove, *On Punishment*, 73–74, 96.

30 *Ibid.*, 76.

31 Murray, *Suicide in the Middle Ages*, vol. 2, 270–276 and 181–188 on the stipulations of early medieval councils. See also Blásquez, "Morallehre"; Geiger, "Selbstmord im Kirchenrecht"; Zeddies, "Verwirrte oder Verbrecher," 67–71. For the Russian Orthodox Church, see Morrissey, *Suicide and the Body Politic*, 20–29.

32 With respect to that, commentators of customary law like Filips Wielant and Joos De Damhouder followed late medieval and early modern Italian penology and adopted the concept of *malum propositum*. Cf. among others those often quoted authors like Giulio Clario and Tiberio Deciani: Clarus, *Opera receptarum sententiarum*, Lib. v. § Fin. Pract. Crim. Qu. LXVIII n. 38; Decianus, *Tractatus criminalis*, T. II. Lib. IX, Cap. I–IIII. According to Deschrijver, "From Sin to Insanity," 990, Wielant and De Damhouder for the first time introduced the concept of malice aforethought into Flemish legal discourse on suicide.

33 Bähr, "Between 'Self-Murder' and 'Suicide,'" 625.

34 Pfannkuchen, *Selbstmord und Sanktionen*, 18.

35 Lederer, *Madness, Religion, and the State*, 254.

18th century, when the government passed the laws to this effect. It should be noted though, that not all German territories followed this development.³⁶

There were also dissenting jurists. Carpzov ranked among the most influential jurists in 17th-century Germany. In some territories his considerations counted as laws, which meant that they were also used in legal arguments regarding the burial of suicide victims. But, as Karl Härter stated, Carpzov's work lacked a comprehensive concept of sanity.³⁷ For example, in his articles on the treatment of suicides, Carpzov addresses the issue more implicitly than explicitly in order to suggest that suicide victims had really killed themselves proactively by their own hands. He asked how one should punish those who had died by their own hands, or had killed themselves by jumping off rocks or houses or by drowning, poisoning, or hanging.³⁸ For the majority of early modern legal scholars such proactive behavior, as mentioned above, constituted the crime of self-murder. It is also noteworthy here, that Carpzov used Augustine to declare that there is no crime without intention.³⁹ From Carpzov's point of view, conditional intent was sufficient to convict someone for the crime of self-murder. He accordingly accepted no excuses in terms of external(!) causes or motives. This is why he deemed everyone who committed suicide to be guilty to a certain degree, whereas other lawyers accepted specific justifications.⁴⁰ Carpzov was not interested in a deeper understanding of motives and causes, because such considerations always led him to the final conclusion that anyone who killed themselves would be found guilty. Unsurprisingly, Carpzov was among the most prominent authors claiming that Roman law had generally found the perpetrators of suicide to be guilty.⁴¹

As previously mentioned, a special case involved the treatment of a criminal who committed suicide before he could be legitimately punished for another crime. In this particular case the Latin judicial construction *ob conscientiam criminis ac metu poenae* (by reason of a guilty conscience and fear of punishment) meant that one was conscious of having committed a crime and lived in dread of corporal or capital punishment. Carpzov emphatically voted in

36 On Electoral Saxony, see Kästner, *Tödliche Geschichte(n)*, chaps. 3–10. Cf. Lind, *Selbstmord in der Frühen Neuzeit*, 340–345 for the duchies of Schleswig and Holstein.

37 Härter, "Zum Verhältnis von Policey und Strafrecht," 204.

38 Carpzov, *Practica nova*, P. I. Qu. II. q. III.

39 Carpzov, *Definitiones ecclesiasticae*, Lib. II. Tit. XXIV, Def. 377 n. 9.

40 Carpzov, *Practica nova*, P. I. Qu. II. n. 29: "Insontes ideoque non sunt mortem sibi inferentes, sive hoc faciant conscientia perpetrari criminis, metuve subiturae poenae, sive taedio vitae, sive doloris impatentia, vel ex desperatione, furore, ebrietate, pudore contracti aeris alieni, amore, vel etiam ex jactatione, immortalitatisve consequendae causa, vel ne secreta sibi commissa pandant, aut peccato consentiant, variisque aliis de causis."

41 Lind, *Selbstmord in der Frühen Neuzeit*, 36; Pfannkuchen, *Selbstmord und Sanktionen*, 46.

favor of a harsher punishment in such cases to defend the ruler's authority and to prevent others of committing suicide in similar situations. For him, unlike other authors, it was irrelevant whether there had been a conviction for a crime or not.⁴² Quite the opposite, he argued it would be absurd to absolve convicted men from guilt and punishment simply because they had killed themselves.⁴³

This is an ostensibly intransigent attitude towards suicide. Nevertheless, neither Damhouder nor Carpzov wanted to punish each and every suicide in the same manner. According to Damhouder a pious Christian judge might only convict those persons who had killed themselves *ex desperatione et ex malo proposito*. The phrase "out of desperation and malice aforethought" highlights the moral theological claim of this point, taking into account that *Judas desperatus* served as a role model, even though he had been ambiguously portrayed through medieval times. From a late medieval and early modern perspective the *desperatio* of a suicide meant an irreconcilable opposition between God and man, because once man despaired of his own state of grace, he lost all hope, trust, and faith in God.⁴⁴ For pre-modern authors, at least until the Reformation, this attitude of godlessness was aggravated by the very fact that committing suicide made this godless state irreversible. Subsequently, Carpzov, Damhouder, and others rejected to consider any external or physical reasons and causes (e.g., difficult living conditions or bodily defects), because in the end such things would all lead to despair over one's own existential condition as the decisive and legally condemnable contributory factor. This association can also be observed in neologisms like the German *angst-verzweifelung* (despair out of fear)⁴⁵ coined by Andreas Celichius in 1578, and the Latin *conscientia sceleris* (guilty conscience) used by Giulio Claro.

Given this logic, difficulties frequently arose as a matter of judicial practice. Officials had to prove that a suicide victim had 'caused' such a state of final desperation through a previous godless life to ascertain malice aforethought beyond doubt in court. And there were similar problems with specific exemptions – derogations that distinguished a pardonable 'suicide' from the

42 Carpzov, *Practica nova*, P. I. Qu. II. not. 36; similar Decianus, *Tractatus criminalis*, T. II lib. IX. cap. II. n. 2–7. Cf. Pfannkuchen, *Selbstmord und Sanktionen*, 115–125 and Maihold, *Ein Schauspiel für den Pöbel*, on the early modern debate about the punishment of corpses.

43 Carpzov, *Practica nova*, P. III Qu. CXXXI n. 49.

44 On the meanings of desperation and premodern depictions of *Judas desperatus*, see among others Matejovski, "Selbstmord," 238–239; Murray, *Suicide in the Middle Ages*, vol. 2, 269–295 and 323–368; Schnitzler, "Tod des Judas."

45 The German neologism "angst-verzweifelung" meant desperation due to angst, fright, trepidation, worries, apprehensions, and fears at once.

mortal sin and unpardonable crime of ‘self-murder’. Because the church would be confident, said Damhouder – already influenced by Reformation theology – that the soul of a suicide victim could be saved, it shall be allowed to bury those who had killed themselves out of an infirmity of mind or inferior temper with Christian rituals including the knell of the bell and the prayers of priests and mourners. The definition of an inferior temper included phrenesis, furor, insanity and melancholy. Damhouder also allowed for severe illness.⁴⁶ This and other examples confirm that the punishment of *non compos mentis* suicides was contested well before the 17th-century.⁴⁷ Carpzov in his later commentary also excused those who had killed themselves without any wicked intention but rather as a result of furor, melancholy, or because they were otherwise of unsound mind.⁴⁸

Obviously and unsurprisingly all those classifications were contested and open to interpretation. Carpzov gives a striking example in that he distinguished carefully between furor and melancholy and deemed melancholiacs to be partially criminally liable. Hence, he voted in favor of so-called arbitrary punishments, which means not the maximum penalty by law but one appropriate to the circumstances.⁴⁹ In his principles of the law of the Protestant churches, Carpzov discussed constraints of burial rituals in cases of suicide, which were to be determined by the church authorities as equally arbitrary penalties.⁵⁰

Taking the first part of this article into account, we can now address other important issues in classifying suicide as self-murder. First, since the legal discourse had stressed that the state of mind was key to a judicial verdict,

46 De Damhouder, *Praxis rerum criminalium*, Cap. LXXXX, n. 5: “Verum enimvero si quispiam sibi morte acceleraverit captus ulla phrenesi, furore, insania, melancholia, defectu sensuum, aut gravi morbo aliaque animi impotentia & inopia percitus & subito correptus, is nullo modo in furcam erigendus fuerit: sed ob bonam Ecclesiae spem de servata anima, licet corpus perierit, traditur corpus sepulturae Ecclesiae, & precum Ecclesiasticarum particeps efficitur.” See also Giulio Claro in his comment (*Opera receptorum sententiarum*, Lib. v. § Fin. Pract. Crim. Qu. LXVIII n. 38): “si qui taedio vitae, doloris impotentia, furore, morbo, pudore moti, manus in se inferunt, non puniuntur poena corporali, nec confiscatione bonorum, neque eorum testamenta irritantur.”

47 Against Baumann, *Vom Recht auf den eigenen Tod*, 17.

48 Carpzov, *Practica nova*, P. I. Qu. II. n. 30: “qui sine fraudulento, ex furore potius, melancholia, vel alia animi impotentia, sibi mortem consciverunt.”

49 Cf. Midelfort, *History of Madness*, 221–223; see 187–227 on 16th- and 17th-century legal discourse on melancholy.

50 On Carpzov’s *Jurisprudentia ecclesiastica* and suicide, see Kästner, *Tödliche Geschichte(n)*, 176–178 and the literature cited there.

how could one practically evaluate the mental condition of the deceased to prove a suspected malice aforethought? Second, which role did church officials play in investigations and court proceedings of suicides, particularly after the Reformation and given the fact that burials of suicide victims in or near a churchyard affected genuine rights of the church? And if pastors and other church officials played any role, how could they find evidence to either excuse or condemn acts of suicide? Again, as it is shown below, protagonists did not necessarily rely on the interpretation of corporeal signs to pass a judgment on a suicide. In fact, the way of the former life of a suicide victim provided authoritative evidence in greater detail. Finally, investigations into a suicide's biography produced empirical and profound knowledge of the possible causes and motives for suicides. This knowledge later also met the expectations of physicians and framed medical interpretations of physical characteristics found in post mortems.

8.3 Pastors, the Devil, and Good Christians

In the 16th and 17th centuries pastoral theology complemented penal and moral theological discourses. Especially in the wake of the European Reformations, questions arose about church discipline and ecclesiastical matters of all kind. And when it came to suicide, pastors were also involved in legal investigations. Often their testimonies about the previous lives of suicide victims served as proof of the truth so to speak, because they knew those who had killed themselves. They acted as expert witnesses, because their duties encompassed not only preaching and divine service but also pastoral and medical care. Furthermore and equally important, they had to support any decision regarding the burial of suicide victims. Such decisions were made by both secular and church authorities. Nonetheless, could Lutheran pastors follow canon law's stipulations at a time when there were no Protestant equivalents? Questions derived from every day pastoral experience as well as from the fact that Luther had ostentatiously burned the canon law at the gates of Wittenberg.

A whole new kind of counseling literature (*Consilia, Responsa*) was developed in response to such questions. Pastors were as concerned about baptism and marital law as they were about funeral law, because all these matters concerned both temporal and eternal life. Hence, pastors asked learned theologians, especially those at faculties of Protestant theology, what they should do. By writing down, copying and collecting their answers, a new Protestant church law was created. Such collections can be characterized as case law,

collected and in use long before comprehensive church orders were issued over the course of the 16th century.⁵¹ One church historian called this counseling literature – thousands of pieces of advices, theological verdicts, and passages from the works of great reformers – “a treasure of pastoral theological experience for the purpose of a [new] practice.”⁵² Sometimes the editors of such collections specifically answered questions so as to comprehensively inform their readers about any conceivable issue.⁵³ These volumes of advice collectively established a new Protestant ‘canon’ for the common treatment of suicide victims. How these scholars found evidence to distinguish ‘accidental’ suicides from self-murder is discussed below.

Philipp Melancthon (1497–1560) was instrumental in developing new principles. In 1529 when the Wittenberg reformers had to deal with the question of whether “those, who kill themselves or otherwise die suddenly” were condemned by God, they reasoned that a final verdict was not possible since God’s judgment over suicide victims would be uncertain. Their arguments concluded with the assumption that suicide victims “are in the devil’s possession and were made to commit so great a sacrilege/crime.”⁵⁴ Although this conclusion contrasted with the majority of existing moral theological discourse, it also trickled into the legal debate, finding its way into several important editions of theological counsel. Secondly, it shaped some of the basic principles that remain relevant for Protestant theology today. Thirdly, it was closely linked to the overall problem of sudden death. As late as the 1664 canon of Wittenberg

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- 51 See Frassek, “Das ‘Wittenbergische Buch’” and Frassek, *Eherecht und Ehegerichtsbarkeit in der Reformationszeit* on the invention of Protestant marital law. The issue of Protestant church law is dealt with in Nörr, “Typen von Rechtsquellen”; Ludwig, *Philippismus und orthodoxes Luthertum an der Universität Wittenberg*. On Lutheran pastoral counseling literature, see Brecht, “Die Consilien der Theologischen Fakultät der Universität Wittenberg”; Gößner, “Die Gutachten der Theologischen Fakultät Leipzig von 1540 bis 1670”; Kohnle, “Wittenberger Autorität”; Sträter, “Wittenberger Responzen zur Zeit der Orthodoxie.”
- 52 “Schatz pastoraltheologischer Erfahrung für die Praxis”; Sträter, “Wittenberger Responzen zur Zeit der Orthodoxie,” 295.
- 53 Gößner, “Die Gutachten der Theologischen Fakultät Leipzig von 1540 bis 1670,” 190–191; Kohnle, “Wittenberger Autorität,” 194.
- 54 “Theologorum sententia de iis qui sibi mortem consciverunt vel alias repentina morte obierunt [...] quam quod sint in potestate diabolica, a quo sunt impulsus ad tantum scelus”; Dedeken, *Thesauri Consiliorum*, vol. 1/2, 805; Wetzel (ed.), *Melancthons Briefwechsel*, vol. 3, No. 853. At least Melancthon’s signature appears in several copies of a corresponding sentence, which was distributed throughout Central Europe. We can assume that he was not able to judge without Luther’s consent, who again appears as co-author in other copies; see the editor’s notes on existing copies, *Ibid*.

theological counsel, the 1529 sentence was still the only systematic approach recorded on the issue of suicide.⁵⁵

Martin Luther (1483–1546) himself wrote that suicide victims were not condemned: “It seems to me that those, who die that way [commit suicide], cannot be considered condemned, because God may save their souls.”⁵⁶ Nonetheless, Luther was fairly ambivalent on the issue of how suicide victims should be treated. For the most part contemporaries adopted Luther’s popular table talks, in which he suggested that secular authorities severely punish those who commit suicide.⁵⁷ He reasoned that secular authorities were obliged to protect the peace for all good and pious people from any evil by means of the law and sword. This involved punishing those who committed suicide in order to prevent others from doing so (“ad terrorem, ut hos quoque severitate consueta puniat”).⁵⁸ According to Luther, the ‘worldly government’ was duty bound to punish every public crime that resulted from unbelief or godlessness. Since as we have seen, suicide was considered a public crime against the state, Luther also held that secular authorities needed to punish those who committed suicide.

In contrast, it can be argued according to Luther that church officials ought to spread the message of the gospel and teach people piety. They ought to consider, that God’s judgment is unknown and that there could still be hope for eternal life for suicide victims. Guided by the principle of Christian love they ought not to condemn everyone who kills themselves. Furthermore, according to the idea of two separate governments, church officials were not supposed to use secular punishments to reach their aims.⁵⁹ In fact, Luther allowed those pastors who asked for advice in cases of suicide to honorably bury suicide victims. Nonetheless, he never buried one by his own hand as was depicted in Eric Till’s motion picture *Luther*.⁶⁰

Thus with respect to suicide, the principles of deterrence and punishment on the one hand contradicted the leitmotifs of Christian love, compassion and charity on the other. Putting the corpse of a suicide on trial still meant

55 Calov, *Consilia theologica Witebergensia*, fols. 121a–b.

56 “Mihi videntur illi qui sic pereunt, non pro damnatis habendi. Deus enim animas illorum servare potest”; Luther, *WATi*, vol. 5, No. 6089; see also Krause, “Luthers Stellung zum Selbstmord,” 59.

57 Cf. Krause, “Luthers Stellung zum Selbstmord”; Kästner, “Wenn sich einer das Leben nimmt, Pater, was sagt Gott dazu?” 163–165; Kästner, *Tödliche Geschichte(n)*, 106–119.

58 Luther, *WABr*, vol. 10, No. 4046. See also Midelfort, “Selbstmord im Urteil von Reformation und Gegenreformation,” 301–302.

59 Dieckhoff, *Luthers Lehre von der kirchlichen Gewalt*, 140.

60 Krause, “Luthers Stellung zum Selbstmord,” 60; Kästner, “Wenn sich einer das Leben nimmt, Pater, was sagt Gott dazu?”

both, to pass a judgment on a person and to respect God's hidden judgment. Nonetheless, it must be remembered that both the worldly and the spiritual government were involved in determining how to proceed. In cases of suicide this convergence of contradicting principles is again highlighted in Luther's table talks. On the one hand Luther claimed that suicide victims were not responsible for their deaths, since they were actually killed by the devil in the same manner in which a man was killed by a robber in the woods. On the other hand, he wanted suicide victims to be punished to ensure that others would fear the Lord and shrink back from committing suicide themselves.⁶¹ In addition, Luther felt that the sphere of spiritual government should be restricted to pastoral care for those afflicted people having suicidal thoughts.⁶²

With regard to the devil as the guilty party in cases of suicide, it is noteworthy that 16th-century concepts of melancholy principally involved the idea, that afflicted people and melancholiacs were driven to suicide by the devil.⁶³ Luther found evidence for this association in letters from pastors, which described cases of suicide where strangled victims had been found kneeling or in other strange positions.⁶⁴ Yet if the devil had caused these suicides, then one could not assume any free will or free intent on the part of the suicide victim. Given this point of view, evaluating suicides simply in legal terms would be categorically misleading. Nonetheless, there was also a debate about whether diabolic afflictions influenced an individual's responsibility for their actions.⁶⁵ In common-law influenced territories, devil-oriented legal phrases (i.e., 'at the instigation of the devil') were conventionally used by lawyers to determine guilt and responsibility, as Robert Houston and Sonja Deschrijver have

61 Maybe one of the most famous quotes in this regard was printed by Johannes Aurifaber (1519–1575) in his well-known collection of table talks: "VJel von den, so sich selbs vmbs Leben bringen, die werden vom Teufel getrieben vnd von jm getödet. Wie die Leute von Strassenreubern, Sind jr selbs nicht mechtig. Wenn solche Exempel nicht bisweilen geschehen, so fürchten wir vnsern Herrn Gott nicht. Drumb müssen wir in furcht stehen vnd Gott bitten, Er wolt vns fur dem Teufel behuten. Auch mus man hart mit solchen Gehenckten vmbgehen nach Ordnung der Rechte, vnd Gewohnheit, auff das sich die rohen vnd sicheren Leute fürchten, Nicht das sie alle drumb verdamet sind"; Aurifaber, *Tischreden*, fol. 497^v. See also Luther, *WATi*, vol. 1, Nr. 222; Luther, *WATi*, vol. 2, Nr. 1413; Luther, *WATi*, vol. 2, Nr. 2597; adopted for instance in Feyerabend, *Theatrum diabolorum*, fol. CXLV^v.

62 Kästner, *Tödliche Geschichte(n)*, 117–119; Koch, "Die höchste Gabe der Christenheit."

63 Bähr, "Between 'Self-Murder' and 'Suicide,'" 624; Lind, *Selbstmord in der Frühen Neuzeit*, 159.

64 Luther, *WABr*, vol. 10, No. 3773; Luther, *WATi*, vol. 1, No. 222. See also Krause, "Luthers Stellung zum Selbstmord," 55.

65 Seabourne and Seabourne, "Law on Suicide," 32–33.

pointed out.⁶⁶ Moreover, from the Catholic Church's perspective, man always had a certain responsibility in the eternal struggle between good and evil. To become addicted to the devil and kill oneself could therefore imply that one had intentionally turned one's back on spiritual aids provided by the church (i.e., consolation).⁶⁷

The contemporary *Selbstmord-Teufel* (suicide devil), however, may be characterized as the opposite theological argument. From a Lutheran point of view, the devil was a real power in the physical world; one able to make people to kill themselves against their will. Such an interpretation was still appearing in late 17th-century German court records.⁶⁸ Usually, pastors and secular officials interpreted suicides in this manner when the victims had been deemed pious Christians and good neighbors. In *Theatrum diabolorum* Hermann Hammelmann (1526–1595) discussed the devil's temptations and the guilt of self-murderers. He asked whether such victims "who were bodily devoted to the devil, and died by the devil's hand and his power, even though they had been good Christians before, were condemned?"⁶⁹ In his pointed emphasis, it was only imaginable for a pious Christian to commit suicide if he had been overpowered by the devil. Such a narrowed perspective on the issue of suicide can only be understood if one takes into account that 16th-century theological discourse was ruled by the idea that it was predominantly pious Lutherans who killed themselves. Unsurprisingly, this assumption was polemically commented upon by Catholic authors, whereas Lutherans replied by means of a kind of self-fashioning: stressing the idea that God would lead only those into temptation who conform to the right Christian belief, which in 16th-century terms meant those who stood on the right side of the confessional border.

During the Reformation period Lutheran theologians contrasted alleged religious melancholiacs with godless desperate sinners. Whereas the devil made it appear as if a melancholiac committed suicide – although the devil had actually choked his victim to death ("vnnd doch also von ihm erwürget,

66 Houston, *Punishing the Dead*, 288; Deschrijver, "From Sin to Insanity?," 995–996 and 1001. Basically, this has already been stated in MacDonald and Murphy, *Sleepless Souls*, 42–60. See also Bähr, "Between 'Self-Murder' and 'Suicide,'" 624. Finally, as mentioned above, that was also the case in Benedict Carpzov's considerations of melancholic dispositions; see Midelfort, *History of Madness*, 222.

67 Vandekerckhove, *On Punishment*, 194.

68 Examples in Lind, *Selbstmord in der Frühen Neuzeit*, 157–166. On Luther, see Midelfort, "Selbstmord im Urteil von Reformation und Gegenreformation," 301.

69 "Die leiblich dem Teuffel vbergeben sind am leibe/ vnnd daß die vmbkommen durch seine[!] gewalt, wiewohl sie eines guten Christlichen wandels gewesen, ob die auch sollten verdampt seyn"; Feyerabend, *Theatrum diabolorum*, fols. CXLII–CXLVI, quote fol. CXLII^r.

bei welchen auch kein muthwille gefunden"),⁷⁰ premeditated self-murderers were said to suffer from a self-inflicted sinful life that led to desperation and made them guilty of an even more horrible offence.⁷¹ Even prayers could not help against such despair, especially if they were recited with the intent to kill oneself. Quite the contrary, a sentence of the Leipzig faculty of theology of 1620 indicates that such apparently pious behavior was to be deplored, because it offended divine grace.⁷² By implication, the determining sign of absent intent and lack of guilt was a confident Christian lifestyle. This was not a new theological invention at all. In fact, this convention is the key to understanding the treatment of every person who died a sudden death, as Luther had already declared in his postil (*Hauspostille*) of 1521, where he referenced the widely-cited Augustine quotation: "mala mors putanda non est, quam bona vita praecesserit" (one should not think death is bad when it is preceded by a good life).⁷³

A widely distributed collection of theological counsels and sentences, edited by Georg Dedeken (1564–1628) and published in 1623, printed several passages concerning suicide. These included the Melanchthon/Luther sentence of 1529, the above mentioned Leipzig judgment of 1620 and some undated, though significant thoughts by Lutheran theologian Johannes Wigand (1523–1587).⁷⁴ Like his fellows, Wigand deemed despairing self-murderers to be condemned. Even though he contrasted these with lunatics, he again stressed the importance of Christian conduct. His argument was quite simple, albeit convincing: the intention to kill oneself opposed the idea of a Christian life. Hence, those who had lived a good Christian life and wholeheartedly believed in Jesus Christ could not have intended to kill themselves. Of course, the issue here was the same as for a secular court – neither pastors nor government officials (nor physicians) could read the minds of suicide victims. Hence, a pragmatic solution had to be found, which Wigand did. He argued that it is sufficient to investigate a suicide victim's previous life to evaluate his Christianity in order to

70 Feyerabend, *Theatrum diabolorum*, fol. CXV^v.

71 Celichius, *Nützlicher und nothwendiger bericht*, fols. Cvi^v–Pvi^v.

72 Kästner, *Tödliche Geschichte(n)*, 129–130.

73 Augustine, *De civitate Dei*, 1.11; Luther, *Hauspostil*, fols. CXII^v–CXIII^r. See also Luther's letter of condolence of 1528 addressed to a widow in Zwickau in Luther, *Der Vierde Theil*, 407. This letter was cited in several collections of theological counsels, see e.g., Pollio, *Consiliorum theologorum centuria prima*, 119–120 and also Suevus, *Trewe Warnung*, fol. Di^v. On the theological implications of sudden death and early modern Lutheran funeral sermons on those who had died an unexpected death, see Kästner, "Die Ungewissheit überschreiten."

74 Dedeken, *Thesauri consiliorum*, vol. 1/2, 802–804. On the significance and influence of Dedeken's collection, see Gößner, "Die Gutachten der Theologischen Fakultät Leipzig von 1540 bis 1670."

ascertain his intentions.⁷⁵ Beyond legal premises Wigand went on to describe a method of reaching a verdict over the guilt or innocence of suicide victims. Thus, summary interrogations of ‘witnesses’ (i.e., people who knew the victim) and pastoral testimonies of the victim’s previous life finally took center stage. By implication, any post mortem were unnecessary if a homicide or accident could be excluded for a certainty. At the same time, Wigand answered the pivotal question that had been remained unspoken by jurists: how could one ascertain malice aforethought to commit suicide?

By means of a retrospective diagnosis, secular and church officials were able to attribute malice aforethought to suicide victims who had displayed hints of insufficient faith and piety. It is also important to note that any testimonies recorded as part of legal investigations were bound to the principles of a well-ordered Christian community (*gute Policey*). Testimonies – and the purposeful questions of officials – were bound to legal norms, spiritual principles and traditional values. As a consequence, it was determined that any suicide victim who, in the eyes of a local Christian community, had lived an evil and godless life must have deliberately caused his own state of desperation. Thus, such individuals were to be considered the most heinous of all godless people, because they had not only lived an impious life but had offended the divine order of the world with their suicides. This criterion clearly allowed authorities to reach and justify a clear verdict, both with respect to legal and moral classifications and in the vast majority of cases where either the exact circumstances of the deed were unknown or eyewitnesses were not at hand. Identifying this labeling-process allows historians to understand how some suicide victims were deemed self-murderers and others not.

For all that, life and human behavior are ambiguous. There always remained margins for interpretations. For example Andreas Celichius, a prominent Lutheran zealot and castigator of suicide in the 16th century, demonstrates how matters of fact had to be negotiated. Celichius was unwilling to excuse suicides by motives or circumstances. He made an exception for lunatics but did not systematically deal with such cases. Accordingly, he also called for the indiscriminate disgraceful burial of suicide victims.⁷⁶ But fate played a prank on him, requiring him to reconsider his strict principles. It was one thing to condemn suicide in general, particularly if by implication common people were addressed. It was quite another to condemn the suicide of a sovereign, especially if one had to play the role of a court chaplain like Celichius and the suicide victim was his duke. Johann VII (1558–1592) of Mecklenburg committed

75 Dedeken, *Thesauri consiliorum*, vol. 1/2, 802.

76 Celichius, *Nützlicher und nothwendiger bericht*, fols. Aiiii^r, P^v and Ziini.

suicide in March 1592, and as superintendent in the residence city Güstrow and court chaplain, Celichius had to explain this deed in his funeral sermon. Fortunately for him, the duke did not immediately die from his wounds but was able to confess, repent his sins and receive Holy Communion. Thus, as the pastor in Elizabeth Nitzschin's case similarly argued, Celichius was able to claim that although the duke had coincidentally become melancholic and bodily weak, he had returned back to the faith and had died a good Christian death.⁷⁷ Thus, Johann VII was accorded a Christian burial.

Even though one could presume that such an interpretation of events was only possible because Johann VII was the sovereign of an important territory of the Holy Roman Empire, the story of his death hints at two striking points. First, there was no fundamental difference between Celichius's argumentation in favor of a Christian burial for the duke and other comparable cases in which suicide victims either died after a short period of confession and repentance or could otherwise be deemed religious melancholiacs. Second, as in other *non compos mentis* cases, which kinds of behavior could be labeled (religiously) melancholic was open to interpretation.⁷⁸ Moreover, there were no clear directives for how to interpret melancholy with regard to criminal guilt.

Signs of religious melancholy included musing about religious questions concerning oneself, speculating on God's hidden judgment, or doubt in one's own state of grace. In many of such cases, people refrained from attending church service and the Lord's supper, because they deemed themselves unworthy of communal religious practices. Evidently there had been a close affiliation between religious melancholy and desperation, the latter being seen as a grave sin as explained above. Yet in everyday life, to decide whether a person fell into the first category or the other meant to disambiguate otherwise ambiguous signs. Such a distinction requires consideration of the fact that the early modern semantics of melancholy contained a variety of meanings that were occasionally very different in terms of specific behavior. Eric Midelfort claims that we are not able to write an epidemiology of early modern melancholy for that very reason. Additionally, Angus Gowland has convincingly demonstrated how melancholy became attractive as a pattern of labeling (i.e., of old widows) as well as of self-labeling (of contemplative scholars in particular).⁷⁹ Due to

77 Quoted after Hütten, "Johann VII. Herzog zu Mecklenburg." For another example of a funeral sermon for a suicide victim, see Pertsch, *Nachrufsschrift für den Selbstmörder Christoph Rhelin aus dem Jahr 1596*.

78 Cf. Lind, *Selbstmord in der Frühen Neuzeit*, 236–237 and 291–297; Lind, "Suicidal Mind"; Schär, *Seelennöte der Untertanen*.

79 Midelfort, "Melancholische Eiszeit?"; Gowland, "The Problem of Early Modern Melancholy"; further discussions can be found in *Gesnerus* 63, 1–2 (2006), Special Issue "Melancholy

this wealth of linguistic descriptions, we have to consider more than just one category to analyze the subject's complexity. David Lederer has shown more than twenty pre-modern types of spiritual afflictions leading to suicidal urges and he has comprehensively discussed both their cultural and epistemological context. If we would just consider the six basic categories he has analyzed, namely "madness," "somatic disorders," "fear, terror, shocks and pregnancy," "affective disorders," "evil thoughts, demonic temptations and despair," and "obsession and possession," then we can find melancholic signs in each of them, with the possible exception of "possession."⁸⁰

In other words, quotidian attributes of melancholy in ordinary people can be understood as an attempt to name certain types of behavior perceived as deviant in different ways. The same applies to alternative ascriptions such as the German attribution *unsinnig* – which literally meant senseless or suffering from unreason. According to *Zedler's Universal-Lexicon* this label included furor, foolishness, losing one's reason and mental weakness. All such ascriptions pointed to a kind of remarkable or even deviant behavior and could also be read as indicating suicidal urges, although that was not a compelling conclusion.⁸¹

Taking all those ambiguities into consideration there remained one crucial though for a long time unexplored question for early modern contemporaries: are there any physical signs that could either explain suicidal urges or help to distinguish 'accidental' suicide from self-murder.⁸² Here, medical expertise and in the long run what is now called forensic medicine came into play. How medical knowledge and practice encountered those centuries-old traditions and ideas, how medical knowledge contributed as well as changed long-established debates are examined below. Putting the corpse of a suicide on trial for centuries meant to judge the previous life of a suicide victim, but since the late 17th and early 18th centuries more and more suicide corpses ended up on the autopsy table.

and Material Unity of Man, 17th–18th Centuries." See also Barbagli, *Farewell to the World*, 87–92.

80 Lederer, *Madness, Religion, and the State*, 154–196.

81 *Großes Universal-Lexicon*, vol. 49, col. 2017 ("Unsinnig"), col. 2046 ("Unsinnigkeit").

82 The term "suicidal" itself implies nineteenth-century medical concepts and is closely tied to vague ideas of melancholy as Åsa Jansson has shown most recently; Jansson, "From Statistics to Diagnostics."

8.4 The Suicide's Body as a Symbol of Knowledge: Early Modern Forensic Medicine

To analyze the role of medical professionals in early modern suicide investigations means to tackle two issues. First, there is a historiographic narrative that tells a *prima facie* convincing story of the medicalization of suicide during the 18th century, alleging not only the breakthrough of a new kind of knowledge about suicide but also a change in the roles and social functions of pastors and physicians after approximately 1760.⁸³ The other question is to examine how medical 'experts' not only gained their knowledge but furnished proof, laid claim to authority and spread their views.⁸⁴

One key argument should be emphasized at the very beginning of this chapter. Recent research into the field of contemporary forensic investigations in cases of suicide has clearly demonstrated that "neither pathology nor forensic science can necessarily prove suicide, and today suicide investigation relies as much as it always did on clues provided by the personal biography of the deceased."⁸⁵ Taking these findings into consideration in fact demonstrates why it is essential to consult the history of pre-modern suicide classifications; i.e., the interpretation of individual circumstances, lifestyles, and habits as described above. But it does not necessarily answer the questions raised here. Hence, the following section outlines the way in which medical knowledge was increasingly used in official deliberations.

Looking at the long-term changes in the history of suicide in western societies, it cannot be denied that medical expertise became increasingly important in suicide investigations over the course of the 18th century. Coroner's inquests had been part of medico-legal investigations for centuries – but not in every territory to the same extent and quality and rather as an external examination

83 Lind, *Selbstmord in der Frühen Neuzeit*, 399–430; Watson, *Forensic Medicine in Western Societies*, 98–124. This cannot be discussed in detail here. Recent research is rather skeptical and argues that the medicalization of suicide is a 19th-century development. Such a view is supported by studies on the history of forensic psychiatry and the medicalization of penal law as well as the birth of criminology in the 19th century. See for instance Houston, "The Medicalization of Suicide"; Wetzell, *Inventing the Criminal*.

84 'Expert' is basically a 19th-century technical term; cf. Kästner and Kesper-Biermann, *Experten und Expertenwissen in der Strafrecht*; Watson, *Forensic Medicine in Western Societies*, 2.

85 Watson, *Forensic Medicine in Western Societies*, 105, referring to Timmermans, *Postmortem*, 74–112. See also Timmermans, "Suicide Determination and the Professional Authority of Medical Examiners."

of the corpse than in terms of a forensic investigation of the physical causes of suicides.⁸⁶

It is noteworthy that the medical discourse on suicide was initially restricted to pathological phenomena: the subject was primarily discussed in treatises on certain diseases and afflictions like melancholy, hypochondria or nervous maladies. But that does not mean that medical knowledge and reports simply replaced the expertise of theologians, clerics and jurists or were suddenly deemed more important. On the one hand, physicians were not able to pass a verdict on the burial of a suicide; on the other, the pathologization of suicide implied new issues for the debate about a free will. Recent research, therefore, has questioned narratives of simple progress and secularization – in whatever form – and proposed terms like ‘hybridization’ (Susan Morrissey) to characterize the coexistence of ‘old’ and ‘new’ views and their complex entanglement.⁸⁷

It is now assumed that the history of medical suicide investigations cannot be described without considering the effects of what has been called the 17th-century scientific revolution with its rising authority of empirical knowledge, here in both psychiatric suicide investigations and changing practices in anatomy.⁸⁸ Furthermore, one should consider the development of medical policing in the 18th century, which took center stage in early modern state policy and politics as the idea of a well-ordered and healthy body politic arose. A rising number of asylums and a vast number of mandates and specific programs, i.e., to save casualties and those who attempted suicide in order to avoid unnecessary losses of life, manifested a kind of bio-political grasp on people’s life. This development not only implemented suicide prevention as a subject of public health and safety but also “strengthened the connection between suicide and insanity in the minds of both the medical profession and the general public.”⁸⁹ Indeed all this required a well-trained medical staff or at least a basic medical staff as in sparsely populated areas like Sweden, where physicians did not play any substantial role neither in general nor more specifically in suicide investigations up until the mid-18th century.⁹⁰

Thus medical education was intensified to include a more practical training with human bodies in anatomical institutes and surgeons’ schools. To

86 Dieselhorst, “Bestrafung der Selbstmörder,” 80–161.

87 Morrissey, *Suicide and the Body Politic*. See also Miettinen, *Suicide in Seventeenth-Century Sweden*, 9 and the literature cited there.

88 The classical study on psychiatric observations in the 17th century is MacDonald, *Mystical Bedlam*; see also Katherine Watson’s remarks in *Forensic Medicine in Western Societies*, 100–101.

89 Watson, *Forensic Medicine in Western Societies*, 101. See also Kästner, “Saving Self-Murderers” and the literature cited there.

90 Miettinen, *Suicide in Seventeenth-Century Sweden*, 259–260.

provide these institutions with ‘body material’ not only the corpses of convicted criminals were used – as had been practiced since late medieval times, but additionally those of poor hospital inmates and to a growing extent suicides. Surprisingly, the use of suicide corpses in anatomical institutes has yet to attract rigorous study.⁹¹ Nonetheless, scholars have shown that an extensive use of suicide corpses for the purpose of medical training only became possible because suicide was criminalized and punished. Again, we cannot understand premodern forensics related to suicide without the history of all those various and ambiguous classifications of suicide as depicted above. Secondly the anatomical training (i.e., dismembering of the body) to a certain extent substituted for the dishonorable burial as a symbol of punishment.⁹² To avoid any misunderstandings, this did not mean that physical evidence for suicides was extensively studied in those institutions. On the contrary, corpses of suicides were simply used to enhance surgical skills to include the amputation of limbs.⁹³

Of equal importance is the fact that physicians described suicides in traditional categories of innocence and culpability, responsibility and insanity, although they used specific medical terms as a linguistic strategy to gain authority. This implies that the subjects of medical investigations were not simply scientifically examined and dispassionately described but morally evaluated. This is because physicians had to contribute to the debate of why people would or did kill themselves within the context of popular discourse about suicide and more specifically in forensic (court ordered) investigations. As Katherine Watson generalizes: “The history of forensic medicine cannot be understood simply as a branch of medicine, therefore, but must be considered in its relation to the law.”⁹⁴ In fact, this is exactly what the German word *Gerichtliche Arzneikunde* meant. Emanuel Gottlieb Elvert (1759–1811), a physician in the city and administrative district of Cannstatt (now Stuttgart), worried in 1794 that he had carelessly given credit to village rumors about a previous wicked life in a 1786 suicide case when he judged it a “morally abnormal deed.” Above all, he was reacting to comments in contemporary medical literature which claimed he had neglected to prove a sickness of the body and by implication of the mind as the ‘real’ cause of that particular suicide.⁹⁵

91 Lederer, “Suicide Statistics as Moral Statistics,” 248 fn. 72.

92 Kästner, *Tödliche Geschichte(n)*, chap. 8; now Kästner and Luef, “The Ill-Treated body.”

93 This was also a contributing factor to the late 18th-century English debate about dissecting criminals; see Ward, “The Criminal Corpse.”

94 Watson, *Forensic Medicine in Western Societies*, 4.

95 Elvert, *Ueber den Selbstmord in Bezug auf gerichtliche Arzneikunde*, 93–104, quote 96 and passim.

These findings suggest that medical descriptions quite often implied moral verdicts, as Julia Schreiner has clearly emphasized, since almost every classification involved an implicit understanding of deviation in relation to an ideal norm. For instance, every remark that a certain organ was thin or thick meant that it was too thin or too thick. Similarly, reports of indurations could signal a somatic disorder that must have affected the mind of a suspected suicide victim.⁹⁶ The advantage of moral implications is evident, in that they allowed for a distinctive positioning, which was in turn required by the courts. But physicians may have often felt pressured to give precise answers to the court's questions about suicide victims. This is highlighted by German physician and gynecologist Friedrich Benjamin Osiander (1759–1822), who in 1813 advised his fellow colleagues to withstand the temptation to speculate in the many cases in which no clear judgment was possible.⁹⁷ Sometimes undisputed judgments were politically welcome. After the Bavarian councilor and count Franz Sales von Spreti (1767–1791) shot himself in 1791, rumors rapidly spread that he had committed suicide because he was a member of the Illuminati Order.⁹⁸ A post-mortem examination was performed and the only unnatural signs found, a thick braincase and a blood-rich inner body, were recorded *en passant*. When the responsible medical officer later wrote his report though, he transformed the original short protocol notes to construct a clear case of a pathological suicide due to striking bodily deviations that must have affected the *sensorium commune*, or the organic link between body and soul. Again, such a practice is also highlighted in Emmanuel Gottlieb Elvert's 1794 treatise on suicide where he asked whether or not it would be likely that above all a "morbid condition of the body" causes a suicide.⁹⁹

But basically, there was no clear professional profile of forensic medicine or specialized training at all up before the 19th century. Accordingly, there was also a clear lack in coherent standards to judge either physical characteristics or insights from a lanced body. As a result, physicians were able to offer almost any cluster of somatic symptoms or descriptions of the intestines to explain probable causes of suicide to laymen in the local courts.¹⁰⁰ Since causes and motives were determined after a quick glance at information about the suicide

96 Schreiner, *Jenseits vom Glück*, 48–52.

97 Osiander, *Über den Selbstmord*, 384–385.

98 See Kühnel, *Kranke Ehre?*, 237–275 on this case, esp. 247–254 on Streti's autopsy. The Illuminati Order was blamed by his enemies in many ways. For instance it was said that the Illuminati Order would exculpate and advise suicide as a way to escape from temporal life.

99 Elvert, *Ueber den Selbstmord in Bezug auf gerichtliche Arzneykunde*, 98–104.

100 See Lorenz, *Kriminelle Körper – Gestörte Gemüter*, 322; Kühnel, *Kranke Ehre?*, 251–252.

victim's lifestyle and habits, a wide range of interpretations was possible – especially considering the ambiguous semantics of particular terms like melancholic as previously discussed. But it is exactly this characteristic that allowed physicians to participate in the overall discourse on suicide: vague classifications and categories which could be transformed into medical language and vice versa.

Eighteenth-century catalogues of physical evidence for presumed suicides (in German: *präsumtiver Selbstmord*) comprised at least two points.¹⁰¹ First, were deadly wounds unequivocally self-inflicted? Second, were there any corporeal signs of an adverse effect of morbid body conditions on the soul? In terms of the first question, physicians discussed suicide methods (hanging, drowning, poisoning and so on and so forth) like other professionals involved in legal investigations as described above. Basically, guidelines insisted that one scrutinize the obvious. For instance, when someone had been found dead after falling from great height, one should locate those wounds that had clearly caused death. A talented medical examiner should have flair for suspicious signs such as strangulation marks. Cases of drowning were far more complex, although the contents of stomach and lungs could be exposed to detect water or froth as signs of a death caused by the water. But contemporary discourse was inconsistent and undecided in pinpointing exact causes of death by drowning (stroke or suffocation) and could not fully assess the influence of other factors, such as the preceding use of narcotics. Moreover all these findings revealed nothing about the possible reasons someone went (or was caused to fall) into the water. Doubts also arose in cases of shooting, even though forensic practitioners were fully aware of a number of suspicious factors (i.e., posture and bullet channel's direction as well as traces of powder – but even these had been found inconclusive). In a majority of cases, Elvert stated, one could not decide whether someone had shot himself or had been shot by a third party. Thus, the essential question whether or not a presumed suicide victim really had premeditatedly shot himself remained open to further speculations.¹⁰²

Considering all these uncertainties, medical examiners had to search for other types of physical evidence, namely organic. But as the late Elvert himself expounded, thereby defending ancient traditions, it was far from certain that a state of mental disorder must have had physical causes.¹⁰³ Nonetheless, as

101 Here I follow the summary given by Elvert, *Ueber den Selbstmord in Bezug auf gerichtliche Arzneykunde*, 31–92.

102 Elvert, *Ueber den Selbstmord in Bezug auf gerichtliche Arzneykunde*, 54.

103 Elvert, *Ueber ärztliche Untersuchung*, 53–57 and the sources cited there. See also Lederer, *Madness, Religion and the State*, 10 on religious interpretations of mental afflictions.

far as medical expertise was concerned, witnesses were obliged to only give non-vague opinions. Most colleagues shared Elvert's approach to carefully assess every possible aspect of a case, but theories and concepts differed. Elvert's work is exemplary among 18th-century printed collections of medical counsels, although neither for its popularity nor its unique focus on suicide. All these texts were themselves products of an ongoing debate in search for empirical evidence to either prove or confute traditional (which usually meant ancient) assumptions on suicide – and of course such empirical evidence, like human life in general, turned out to be ambiguous and sometimes contradictory.

One assumption deduced from Galenic humoral pathology related physical causes of suicide to a dysfunction of the spleen, which was thought to evoke a surfeit of black bile causing melancholy.¹⁰⁴ It is, however, impossible to give a complete catalogue of physical symptoms that had been related to suicide in 18th-century forensic medicine, because in practice almost every irregularity could be deemed as such. At least we can, again with the help of Elvert, reconstruct four basic categories.¹⁰⁵ First, finding a distorted skull or brain, which became more and more relevant during the 18th century, was a windfall to coroners, for such results could easily witness an effect on the *sensorium commune* and for this reason must have caused suicidal behavior.¹⁰⁶ Second and more generally, physicians ought to look for sure signs of any anomaly that could have caused pain (indeed this is Elvert's first point). Equally vague are the third and fourth categories: all that affects breathing and blood circulation could be considered as a contributing physical factor to a presumed intent to end one's own life. Clearly, one could interpret almost every result of a dissection in a way that fits to one of these categories. So, how did physicians meet the challenge to give an official valuation as unambiguous as possible?

As we can see in Elvert's work as well as in a plethora of medical treatises, 18th-century physicians were fully aware of this issue, albeit their positions concerning the meaning of bodily evidence for suicidality differed. Nonetheless, common to all were specific narrative and discursive strategies to cope with the ambiguous complexity of forensic reality. Printed collections of medical opinions helped to spread physicians' views and provided many case studies for fellow colleagues as well as for an interested public.¹⁰⁷ Strikingly, these texts have generally only been analyzed in support of theories for the medicalization

104 Lederer, *Madness, Religion and the State*, 31–39.

105 Elvert, *Ueber den Selbstmord in Bezug auf gerichtliche Arzneykunde*, 68.

106 Cf. Kühnel, *Kranke Ehre?*, 252 and the literature cited there.

107 In my view the most well-informed study on this topic is Lorenz, *Kriminelle Körper – Gestörte Gemüter*; Cf. further Lorenz, "Zu den Anfängen gerichtspsychiatrischer Gutachtung im 18. Jahrhundert."

of suicide. While it is true that these texts both show how physicians looked for bodily conditions to determine suicidality and stressed the strong influence of such pathological conditions, they can also tell us to what degree physicians depended upon the biographical information about the suicide victim revealed via inquests or by reading personal accounts of the deceased. Thus, instead of upholding a simple narrative of a one-way process of medicalization, I would argue, that these texts should rather be read as expressions of interdependent fields of knowledge. An assistant of the royal Prussian Collegium Sanitatis Johann Gottlieb Kühn published a collection of autopsy reports in 1791 that depict how physicians considered both the evaluation of corporeal causes and the exploration of spiritual and mental afflictions.¹⁰⁸ Here again context matters. One should keep in mind that essential parts of enlightened discourse on suicide, particularly what has been called *Erfahrungsseelenkunde* (translated badly as empirical psychology), relied above all on an interest in entire biographies to recognize the whole person of a suicide victim.¹⁰⁹

Probably the most influential 18th-century author on issues of forensic medicine was the short-lived Berlin city physician Johann Theodor Pyl (1749–1794), who collected innumerable notes and reports regarding his official obligations and experiences. These were then frequently quoted by all relevant authors in the field.¹¹⁰ Hence, these collections provided defining authority to all mediators of medical expertise for a wider public (i.e., Emmanuel Gottlieb Elvert). Pyl's reports also included plenty of suicide cases in which he quoted farewell letters, witness reports, private correspondence and even interrogations of dying victims such as Elisabeth Nitzschin whose testimony was cited at the beginning of this article.¹¹¹ In 1785 Pyl published a report on a woman who had initially killed her second child and then cut open her own abdomen with a blunt knife. She died soon after being treated by a surgeon and debriefed by Pyl. The woman claimed to have been mournful and desperate since the birth of her third child four months previously. Even though Pyl characterized her as mentally deranged and confused, he treated her words seriously and predicated, using a popular rhetoric figure, that “there can be, however, no doubt[!], that this miserable person had committed this twofold murder in a real state of *raptu melancholico* or an attack of melancholic phrenesis,” which

108 Kühn, *Sammlung medizinischer Gutachten*, 165–199.

109 Neumeyer, *Anomalien, Autonomien und das Unbewusste*. In principle this also applies to early 19th-century criminal psychology; see Greve, *Verbrechen und Krankheit*.

110 See “Pyl, Johann Theodor.”

111 See for instance Pyl, *Aufsätze und Beobachtungen aus der gerichtlichen Arzeneiwissenschaft*, vol. 1 (1783), 84–92; vol. 2 (1784), 112–116.

all circumstances and evidence would suggest.¹¹² Fortunately, Pyl already knew what he was looking for in the postmortem, and he finally found it. In addition to a haggard appearance, a vast amount of blood and some minor inflammations, he found a suspicious accumulation of pus as the most noticeable deviation. Thus, he declared the pus to be the most likely cause of this woman's melancholy.¹¹³

Clearly Pyl, like the majority of his fellow colleagues, ascribed the mental state of suicide victims to corporeal causes, thus confirming the ancient discourse about the relationship between body and soul. But the key point here – and through this article – is that a medical explanation could only appear plausible within a cohesive story of the concrete circumstances.

8.5 *Résumé*

As modern suicidology has clearly demonstrated, any piece of new evidence in a suicide case is capable of influencing our understanding of the tragedy that can probably never be fully explained.¹¹⁴ As the short historical survey presented in this article has revealed, western societies have always asked why someone had killed themselves when the corpse of a suicide has been put on trial. However, the answers supplied were determined by specific religious, legal and social contexts as well as for different purposes. Hence, a 16th-century author asking why someone had killed themselves expected an answer which corresponded to his world view, as opposed to that of modern readers.¹¹⁵ Inevitably, legal, religious and medical authorities have developed different methods of classifying suicide in terms of theological-moral judgments and legal sanctions. As a matter of fact, a lot has changed in terms of investigating and judging suicides since the 16th century. Nonetheless, the one constant factor in the history of suicide in western societies has been the interest in the biography

112 Pyl, *Aufsätze und Beobachtungen aus der gerichtlichen Arzeneywissenschaft*, vol. 3 (1785), 106: "Es ist also wohl ohne Zweifel, daß diese unglückliche Person diesen zweyfachen Mord in einem wirklichen raptu melancholico oder Anfalle von melancholischem Wahnsinn [...] begangen habe."

113 *Ibid.*, III.

114 Bronisch, *Der Suizid*, 72–74.

115 I understand this semantic richness as a key to analyze labeling processes to better understand – above all – how different societies classify suicides in different ways, while it is the aim of Marzio Barbagli's impressive historico-sociological study to show how historically changing "cognitive schemas and classification systems, beliefs and norms, meanings and symbols available to men and women" explain (!) "the frequency of different types of suicide"; Barbagli, *Farewell to the World*, 7.

and individual circumstances of a suicide victim. With the help of such information about the previous life and character (both terms equally bound to specific historical contexts), theologians nuanced religious verdicts, jurists differentiated penalties and physicians described the results of their autopsies using believable narratives. In this regard, all of these professions tried to unravel the mystery of suicide in their own terms, though they could not and will never be able to exhaustively answer the key question of why people kill themselves.

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Corpses and Confessions: Forensic Investigation and Infanticide in Early Modern Germany

Margaret Brannan Lewis

9.1 Introduction

In July 1665, the corpse of a very small baby was found in a ditch in an herb garden near the southern German city of Augsburg. Over the next few weeks, the town council launched an investigation into the tiny corpse and the circumstances that led to its disposal. Soon a woman by the name of Maria Dottweiler was arrested and held under suspicion of infanticide or abortion. Dottweiler faced multiple rounds of intense and lengthy interrogation, torture, and the looming threat of execution if she was found guilty.

The discovery in the herb garden initially cast suspicion on all the unmarried women in the neighborhood. Witness statements and neighborhood rumor led the town council to Maria, who was a 37-year-old serving maid originally from Switzerland. The council suspected her of either forcefully aborting her fetus or killing her newborn child; their investigation needed to determine which crime, if any, had been committed. But she withstood four rounds of questioning, including one round of torture, and never admitted to harming her fetus or her child. Since Dottweiler did not confess to any crime other than concealing her pregnancy, the council had to rely on another source of information: the physical examination of the corpse by trained physicians.

The council suspected that Maria Dottweiler had either done something to abort her fetus or had given birth to a small child and left it to die in the ditch in the garden. However, the physicians' report in this particular case supported the defendant's claim that she had done nothing to abort the child or to kill it after birth. The physicians explained that, "as she walked from Kriegshaber to Oberhausen [a distance of just over one kilometer], it came from her quickly and unexpectedly [...] that it was not to be believed that the fetus had ever lived, because the same [the corpse] was only one Spann [perhaps about 23 centimeters] long."¹ Further, they clarified that, "on the part of the child

¹ Stadtarchiv Augsburg, *Strafbücher*, Maria Dottweiler, 17 September 1665. "Wie Sy vom Kriegshaber nacher Oberhaussen gehen wol, Ihr schnell und unfürsehens vom Ihr

there was marked suspicion that it had been aborted from the woman from Oberhausen [Maria Dottweiler]; the child was found all white, perfect, and had all its members, and unharmed. Therefore, it is determined, that it suffered no harm in the womb." In Maria Dottweiler's case, the council did not have the evidence or confession required to convict the suspect, and she avoided execution.² Yet without the physicians' report, it is likely that interrogation might have continued into further rounds of torture. Instead, Dottweiler's case was cut short and she survived.

The unexpected discovery of the corpse of an infant almost always sparked a criminal investigation into potential infanticide. In early modern Germany, infanticide was a crime with a singular, clear definition: an unwed mother, wanting to hide her sexual indiscretions, kept her resulting pregnancy and childbirth a secret, and killed her newborn child. Only a careless and selfish woman with something to hide – or so early modern jurists and civic authorities asserted – would be capable of discarding of her own child in such a heartless manner. When an infant's corpse was found, suspicion fell almost exclusively upon unmarried women, and the intentional, violent death of the newborn was assumed.

Infanticide can be seen as a *cause célèbre* of the centuries following the Reformation, as reformers' concerns about morality focused almost obsessively on sexuality. The 16th century witnessed the implementation of harsher laws not only against infanticide, but against all manner of unacceptable sexual behavior. Fornication and adultery could result in corporal punishment, jail time, banishment, or even death. Infanticide by an unwed mother was interpreted as a rejection of everything that a woman of this era was supposed to be: chaste until marriage, and a loving, dutiful mother afterward. Despite relatively low occurrence of the crime, infanticide garnered a great deal of attention from legal and moral reformers and the press, representing as it did for many the moral degradation of their time. It was imperative, then, to prosecute infanticide to its fullest extent and to discover the perpetrators of this horrendous crime whenever possible.³

Maria Dottweiler's case was typical in that in most infanticide cases, the only physical evidence of a possible crime was the corpse of the murdered child. In

gegangen[...] es seye nicht glaublich, dass ins dem foetu abortivo ein leben gewesen, weils deselbige nur die länge einer spannen gehabt."

2 Stadtarchiv Augsburg, *Urgichten*, Maria Dottweiler, 17 September 1665. "An seiten des kinds gibt es ein merklichen verdacht zu seinem abtrib, in dem die Oberhaisische weiber solches schön weiß, vollkommen, und an allen seinen glidmassen, untadelhafft befunden, daher leichtlich zuschliessen, daß es in miterleib keinen mangel gehabt habe."

3 Lewis, *Infanticide and Abortion in Early Modern Germany*.

most cases there was no weapon left behind: most victims were suffocated, left to bleed out, or simply abandoned to die from exposure and neglect. These corpses, or sometimes partial remains, were found down privies, stuffed into trunks, thrown in a canal or river, or even discarded with the kitchen scraps into a pigsty, and in every stage of destruction or decay.⁴ But in the end, if a corpse was found at all, it became the focus of the investigation and defined the parameters of the trial and interrogation.

Prosecuting authorities did consider other kinds of evidence when possible. Some case files preserved supposed abortifacients (ranging from powders to dried herbs) letters from witnesses, and statements of character. The location of the alleged crime was also evidence that could reveal intention – could the child have died from a fall into the privy? Was a corpse found under a mattress proof of intent to smother it? Also important as evidence were the bodies of the mothers themselves, which were poked and prodded for signs of recent pregnancy and parturition. Did the woman's breasts produce milk? Did the firmness of her belly reveal a recent pregnancy? But by far the most important evidence was the corpse of the child. Nothing else was considered as definitive as the markings left on the corpse. Indeed, it was nearly impossible for an investigation to gain any momentum without a corpse. Occasionally, an investigation would begin based on an accusation, often of a woman's sexual indiscretions or of odd behavior. But without a corpse, such cases usually foundered.

Major legal transformations were taking place in the Holy Roman Empire in the 16th century which altered the importance and the role of the corpse as physical evidence in infanticide and abortion trials. A corpse itself was not sufficient to produce a conviction: legal procedure in the Holy Roman Empire, the *Inquisitionsprozess*, required that either the accused confess to the crime or that two reliable witnesses produce reports consistent with each other and with the evidence. Only these options were considered full-proof of guilt and sufficient to warrant conviction and execution in capital cases. The inquisitorial-style procedure was a major aspect of a complete transformation in the Holy Roman Empire's legal system that was happening in the 15th and 16th centuries, one that was solidified by the issuance of the *Constitutio criminalis Carolina* (or simply, the *Carolina*) in 1532.⁵

In the Holy Roman Empire, the *Carolina* could be pre-empted by local law, and practices could vary. Localities (particularly the Free Imperial Cities, like

4 Examples can be found throughout Stadtarchiv Augsburg, *Urgichten* and *Strafbücher*.

5 Landau and Schroeder, *Strafrecht, Strafprozess und Rezeption*; Strauss, *Law, Resistance, and the State*.

Augsburg) frequently adhered to the new regulations of the *Carolina*, however, especially when it came to abortion and infanticide. Infanticide and abortion proved to be problematic when it came to the guidelines of the imperial law, because by their very nature, witnesses to the crimes were extremely rare. These crimes were dependent on expectant mothers keeping their condition hidden; the act itself was often planned and performed in private. Full proof from two eyewitnesses would have been extraordinarily rare in these cases and the only form of full-proof a court could hope for was a direct confession.

The *Carolina* outlined the parameters of the *Inquisitionsprozess* and the use of torture, to the end of eliciting that all-important confession. It is here that physical evidence played an important role; evidence such as a corpse was not enough to convict, but was seen as an aid to the process of interrogation and torture which could lead to confession and conviction. The *Carolina* specifically mandated the use of medical experts in cases of suspected infanticide and abortion.⁶ Medical expertise was key in determining whether or not a crime had even occurred, and what the nature of that crime was.

While the opinion of a medical professional alone was not enough to convict a suspect, or even to determine “truth” about the crime, the *Carolina* specifically ordered the consultation of medical experts in order that they might lay the foundation for proceeding further in the *Inquisitionsprozess*.⁷ The medical forensic investigation of a corpse was of vital importance in helping the prosecution to reach the all-important designation of half-proof, the minimum legal basis for proceeding to torture. According to the dictates of the *Carolina*, half-proof could be established by one reliable witness or sufficient physical evidence that a crime had indeed been committed. Torture was, in turn, often necessary to procure the complete confession necessary for conviction.⁸ Since the existence of even a single eyewitness was exceptionally rare in infanticide and abortion cases, the suspected mother’s body and infant’s corpse might be the only evidence available. In these cases, half-proof could be reached with the discovery of a corpse and the medical ruling that it had met an untimely and violent end, or by the medical determination that a suspected woman had been pregnant and now had no child to show for it.⁹ The *Carolina* specifies that torture should be used on any woman suspected of concealing pregnancy.¹⁰ In a section entitled “Von heymlichem Kinder haben und tödten durch ire

6 Wessling, “Infanticide Trials and Forensic Medicine,” 118.

7 Langbein, *Prosecuting Crime in the Renaissance*.

8 Langbein, *Torture and the Law of Proof*, 5.

9 Wessling, “Infanticide Trials and Forensic Medicine,” 120.

10 Müller, *The Criminalization of Abortion in the West*, 157, 186.

mutter / gnugsam anzeygung,” (Of secret childbirth and killing by the mother / sufficient indication), the *Carolina* outlines when a suspect should be questioned under torture for the crime of infanticide:

If a girl, who claims to be a virgin, is held in suspicion that she has given birth to a child in secret and has killed it, one should specifically investigate whether she was seen with an abnormally large body; further if her body became smaller and therefore pale and weak. If such is found and the same girl is a person who is suspected of the deed, she should be inspected for further clarification in secret places by experienced women [midwives]; if she is then found suspicious and will not confess to the deed, she should be interrogated under pain [i.e., torture].¹¹

Further instructions state that the “experienced women,” or municipally-registered midwives, should milk the suspect’s breasts to determine if she had been pregnant recently. If she produced milk, she must have recently given birth, and must be questioned under torture.¹² The determination that a woman had been pregnant indicated that a further crime might have occurred, but it was not definitive evidence of infanticide or abortion. To determine exactly what had happened to the baby, the prosecution relied almost completely on the examination of its corpse. The special examination of the possible mother and the delicate questions of life and death of an infant’s corpse meant that suspected infanticides and abortions were unique in forensic medicine.¹³

9.2 What the Corpse Could Reveal

It was the job of official city physicians, and occasionally also the midwives, to examine the corpse in fulfillment of the *Carolina*’s requirement. In ideal circumstances, prosecutors could use the corpse to establish both the point

11 *Carolina*, article 35: “Item so man eyn dirn so für eyn jungfraw geht / imm argkwon hat / daß sie heimlich eyn kindt gehabt / vnnd ertödt habe / soll man sonderlich erkunden / ob sie mit eynem grossen vngewonlichen leib gesehen worden sei / Mer / ob jr der leib kleyner worden / vnd darnach bleych vnnd schwach gewest sei. So solchs vnd dergleich erfunden wirdet / wo dann die selbig dirnn eyn person ist / darzu man sich der verdachten thatt versehen mag / Soll sie durch verstendig frawen an heimlichen stetten / als zu weither erfahrung dienstlich ist / besichtigt werden / würd sie dann daselbst auch argkwönig erfunden / vnd will der thatt dennoch nit bekennen / mag man sie peinlich fragen.”

12 Ulbricht, “Kindsmörderinnen vor Gericht,” 56.

13 Fischer-Homberger, *Medizin vor Gericht*, 273.

or time of death and the cause of death. The moment of death classified the crime, distinguishing potential abortion from potential infanticide, and a determination of the cause of death could help reveal the guilt or innocence of the mother. An infant's corpse could be the result of infanticide or stillbirth, only the former of which was a crime. A dead fetus (which could be confused for a dead newborn) might have resulted from unintentional miscarriage or intentional abortion. Authorities investigated first to determine what crime was actually committed, if one was committed at all. Was the child killed or did it die some sort of natural death? Was the child born living or was it dead at the time of parturition? And finally, what was the cause of death?

Because forensic examination was such a priority, action was taken immediately. The threat of decomposition destroying crucial evidence placed further urgency on the forensic exam. The careful and close examination of the corpse was therefore among the earliest actions taken upon the corpse's discovery. Theoretically, the physicians examined the corpse in every case of infanticide. As some case files are missing the crucial physician reports, and lack reference to medical forensic findings among other documents, the order to medical examination must not have always been followed. The result of their investigations was usually a very short missive, consisting of only a few sentences. These reports were often physically quite small pieces of paper, unbound and simply tucked between the other pages in the file, which may be a factor in the small number of surviving reports. Sometimes these reports took the form of a list of opinions from a group of physicians or midwives, with individuals briefly weighing in on one specific question. Others, authored by one or two physicians, were much more elaborate, citing the latest in medical knowledge and revealing extensive thought and debate over the issues at hand. The physicians wrote these reports in a combination of German and Latin; Latin served to lend authority to their statements, provide specific terminology, and allow quotes from medical texts, while the German was used to summarize and report decisions. A report about suspected child killer Agatha Rüeffin reads, for example (with the Latin text in italics): "[...] daraus genugsame *signa* und anzeigungen haben können, das sie, *Febre continua putrida et maligna* angestockt seye" ("[...] and from that there are adequate *signs* and indications that she is infected with a *continuous, putrid, and malignant fever*)." These findings in Rüeffin's case acquitted her of infanticide, as she was found to be so ill that she was completely bereft of her senses at the time of childbirth.¹⁴

Such surviving reports detail the process physicians followed. The first step was the visual examination of the external features of the corpse. The

14 Stadtarchiv Augsburg, *Urgichten*, Agatha Rüeffin, 10 July 1610.

physicians looked specifically for wounds and bruising, anything that would indicate some sort of trauma. They carefully checked the head and neck for signs of strangulation or beating. The physicians also observed the overall size of the body for an idea of the age of the fetus or child. In some instances, although apparently not all, the physicians then proceeded to an internal investigation to determine if there were any injuries that were not apparent externally and also for evidence of organ function or failure.¹⁵

Despite the seminal role that they could play in infanticide investigation, the physicians tasked with forensic examinations were often minimally qualified with perhaps only a few years' formal education.¹⁶ However, the regulations in the *Carolina* allowed local physicians to seek the counsel of the medical faculty of a university, especially in difficult cases.¹⁷ For much of southern Germany, for example, this was the medical faculty of the University of Tübingen.¹⁸ The university faculty would read a prepared brief about the case, which outlined what the examining physicians had observed and which issues in particular they needed further advice on. They then responded with succinct answers to these questions based on their own, much more extensive, education and experience.¹⁹

Not all localities exercised this right of consultation. In Augsburg, for example, the local physicians comprised the *Collegium medicum*, an institution appointed by the city council and tasked with regulating medical practice and practitioners in the city, including the activities of midwives, surgeons, and apothecaries, in addition to the physicians.²⁰ The *Collegium medicum* issued its own reports without further consultation. Nevertheless, their reports frequently cited the growing body of forensics literature. There were thus multiple avenues for local investigations to remain apprised of the latest discoveries and opinions and tied into the wider medical community. As local investigations came to rely more on forensic exams, this wider conversation expanded. As medical knowledge grew, so did the expectations for what forensic exams could reveal.

15 Ulbricht, "Kindschmord in der Frühen Neuzeit," 238–239. On forensic examinations of infanticide in Northern Germany, see Häßler and Häßler, "Infanticide in Mecklenburg and Western Pomerania," 85–89. See also Fischer-Homberger, *Medizin vor Gericht*, 277–292.

16 Wessling, "Infanticide Trials and Forensic Medicine," 132.

17 *Die Peinliche Gerichtsordnung*.

18 Wessling, "Infanticide Trials and Forensic Medicine."

19 On how forensic reports and university *Consilia* shaped medical ethics, see Geyer-Kordesch, "Infanticide and Medico-Legal Ethics in Eighteenth-Century Prussia."

20 Gensthaler, *Das Medizinabwesen der Freien Reichsstadt Augsburg*.

9.3 The Pursuit of Higher Standards

By the end of the 17th century, and particularly in the 18th century, forensics was growing as a field in its own right, allowing for a more unified approach in practice across the various territories in Germany. University-trained physicians and faculties more and more frequently published treatises on topics within the broader discipline of medical forensics. Publishers and translators disseminated these treatises all over Germany and Europe, bringing the diverse and scattered experts into closer contact with each other and with the local physicians who were making the decisions in individual cases. While some publications addressed the theoretical dimensions of medical forensics, many were discussions of actual cases in which the author had been consulted. Others published collections of reports on cases from multiple physicians or reports from medical faculty in cases for which higher authorities had been necessary.²¹ These collections tended to focus on more unusual cases, for which a further level of expertise had been needed, and which might be of greater interest to their audiences. First and foremost, physicians addressed questions about causes of death, but they also were asked to address even more complex issues, such as whether a killer might be labeled as insane, or “unsinnig,” or in cases of poisoning.

As crimes of special interest by the mid-18th century, infanticide and abortion were among the most popular and frequent subjects of medical forensic treatises. They were complex crimes whose prosecution depended upon the latest medical knowledge, and whose very definitions rested on uncertain and debatable ideas of when and how life began and what constituted medical certainty and truth. These crucial questions would remain the subject of controversy as forensics publication grew, and would test the limits of what forensic examinations could confidently reveal.

Cases which were unusual or especially complex helped to define the parameters of medical knowledge, and featured heavily in publications on forensics. For example, Christoph Gottlieb Büttner, a professor of medicine in Königsberg, published a very thorough report (sixteen pages for one case) of his examination of a set of conjoined twins, born prematurely, and, in all likelihood, dead. Even though the twins were very small, indicating a very premature birth of around five months' gestation, and the improbability of survival for any conjoined twins at the time, Büttner still proceeded with a full forensic

21 Hoffmann, *Disquisitio medico-forensis*. Daniel, *Sammlung medicinischer Gutachten und Zeugnisse*. Bucholtz, *Beyträge zur gerichtlichen Arzneygelahrheit und zur medicinischen Polizey*.

examination in order to determine whether there was any foul play and whether the corpses resulted from an abortion, miscarriage, stillbirth or infanticide.²²

These reports demonstrate how ideas, theory, and experience were shared among physicians in the eighteenth century. In their reports, physicians cite previous cases, comparing observations and circumstances, and consider the conclusions of other forensic examiners. Physicians detailed techniques and findings, carefully outlining their processes and how they reached their conclusions. Addressing very difficult questions, these physicians did not rely solely on antiquated knowledge but sought to advance forensic knowledge. Physicians like Büttner knew that their studies not only played a crucial role in infanticide cases but also in furthering science, and expanded the limits of what science could do and what questions physicians were capable of answering. When their findings contradicted previous publications, they attempted to explain why, either detailing differing circumstances or directly challenging the previously accepted knowledge.

By the late 18th century, forensic reports had grown in length and detail, extending to answer a wide variety of questions, big and small. In other types of murder cases, physicians might be able to rely on outside information to flesh out forensic findings, such as details about the victim's lifestyle, previous health, personality, and habits. Infanticide and abortion cases were unusual and particularly difficult in that there were no such additional sources of knowledge about the cause of death. Witnesses could provide information about the child murderer herself, but not about the previous existence of the victim. The corpse was all the investigation had, and physicians readily acknowledged the limitations of these examinations.

One 17th-century physician, Giovanni Battista Codronchi, admitted that there were no completely objective physical indications of abortion.²³ Physicians therefore aimed to account for even the slightest abnormality – externally they looked for bruising or other injuries, while internally they looked for organ malfunction – in an effort answer the consequential questions regarding the cause of death. Yet the more information that forensics seemed to be able supply, the greater the potential for disagreement and variation in medical opinion. Nowhere was disagreement more apparent in infanticide/abortion investigations than in the attempt to settle a set of rules for ascertaining the age of the corpse.

22 Büttner, *Erörterung einiger, bey Gelegenheit einer todtebohrnen zweyköpffigen und einleibigen unreiffen menschlichen Frucht*.

23 Fischer-Homberger, *Medizin vor Gericht*, 267.

9.4 The Problem of Ascertaining Age

The question of how best to determine a corpse's age is especially revealing of the difficulty of achieving medical certainty in cases of abortion and infanticide. This question could potentially reveal what crime had actually been committed, but there was very little agreement on how to answer it. When considering the death of a fetus as opposed to that of a newborn child, there were further distinctions to be made, centering on the sensitive subject of when life began. The *Carolina* defined abortion as the killing of a "living fetus," and as a capital crime, while the killing of a fetus that is not living was still punishable, but with lesser sanctions. There was some agreement equating "life" with a fetus having a soul, but the point at which ensoulment occurred was up for debate. Ensoulment was often associated with quickening, or the moment the mother could first feel the fetus move. But quickening itself was a moving target; mothers could experience it at a wide range of times. Further complicating the matter was the difficulty of pinpointing the moment of conception itself. Since the timing of conception could not be determined with any certainty, the perceived or reported distance between conception and quickening could vary quite dramatically. These concerns, combined with disagreement over the point during gestation when ensoulment occurred, resulted in estimates of ensoulment as early as conception or as late as several months into the pregnancy.²⁴ Others held onto an idea dating back most notably to Aristotle, which claimed that male fetuses received their souls at the 40th day after conception and females after 90 days.²⁵

Given the difficulty of precisely calculating a fetus's age and the diversity of opinions about ensoulment – one physician described the question as a "Gordian knot,"²⁶ many physicians tacitly ignored the question of whether a fetus had quickened or had a soul – the corpse of a fetus would provide no definitive indication if it had reached the point of "living" or not. Instead, physicians attempted to estimate the physical age of the corpse – the duration of gestation – to determine if death had occurred before or after birth. This question could be addressed in several ways. General observations about the length and weight of the corpse helped to determine the age of the fetus, but estimates about what size corresponded with which point in development could vary quite widely. As a starting point, physicians gave suggestions for the size of a healthy newborn. One of the leading experts on the subject, Gottfried Wilhelm

24 Ibid., 268–270.

25 Aristotle, *The History of Animals*, 583a28–583b2.

26 Fischer-Homberger, *Medizin vor Gericht*, 271.

Ploucquet, a professor of medicine at the University of Tübingen, estimated the size of a healthy, full-term newborn as fourteen to twenty-one inches in length and six to nine pounds in weight.²⁷ About sixteen years later, Wilhelm Bucholtz, court physician at Weimar, put these measurements at between five or six pounds and roughly the same length as suggested by Ploucquet.²⁸

Physicians also provided other common characteristics of newborns that could be used as indications of a live birth, or at least a full-term birth. Ploucquet stated that a full-term child was “fett, derb, schön,” “plump, solid, fair.” In contrast, a premature baby might be “mager, runzlicht, das Gesicht ist daher hesslich”: “gaunt, wrinkled, and the face is therefore ugly.” The fingernails of a full-term child should be “hard, strong, not very pliable, long, and of a reddish color.” In contrast, the fingernails of a premature child are short, “barely one *Linie* [1/12 of an inch] long, and the first joint is not completely covered; they are soft, and pliable as writing paper, and one can see a blue color through them.”²⁹ Büttner enumerated ten attributes to check regarding the former viability of a corpse. In addition to the length and weight of the body, one should also observe the nails, the hair, the skin, the bones, the muscles, the umbilical cord, the rigidity of the ears, and the size of the head and the fontanelle.³⁰

Integral to this discussion of the duration of gestation was whether the fetus could have survived outside of the womb at that age or stage of development. It was generally accepted that if the fetus had reached eight months, it had a small chance of surviving postpartum. Büttner placed the slimmest possibility of survival at seven months. A child born after five or six months’ gestation would never open its eyes or cry, and would “lie always in sleep,” before quickly expiring.³¹ Ploucquet agreed with Büttner that a five or six month old fetus could be born living and breathing, but would not live for long.³² If a child was born any earlier than eight months, however, it was thought very unlikely to survive.

For Büttner, the beginning of the seventh month of gestation, because it heralded potential survival, demarcated a new phase, distinct from the first

27 Ploucquet, *Abhandlung über die gewaltsame Todesarten*, 124–126.

28 Bucholtz, *Beyträge zur gerichtlichen Arzneygelahrheit und zur medicinischen Polizey*, vol. 3, 24.

29 Ploucquet, *Abhandlung über die gewaltsame Todesarten*, 126. “Die Nägel eines vollkommenen Kindes sind hart, starck, nicht sehr biegsam, lang und von rother Farbe [...]. Hingegen hat ein unzeitiges Kind kurze Nägel, welche kaum eine Linie lang sind, und das vorderste Gelencke nicht ganz bedecken; sie sind weich, und biegsam wie Postpapier, und man siehet eine blaue Farbe durchscheinen.”

30 Büttner, *Vollständige Anweisung*, 14.

31 *Ibid.*, 8, 16–17.

32 Ploucquet, *Abhandlung über die gewaltsame Todesarten*, 202–203.

six months. In Büttner's view, a fetus born – either alive or dead – during the first six months of pregnancy should be referred to as an *Abortum*, or *unzeitiges Kind*, an abortion or an “untimely child.” If a fetus is delivered after the beginning of the seventh month and before the end of the ninth month, Büttner referred to it as a *frühzeitiges Kind*, or a *Partus praematurus*, which would translate as a “premature” infant, but one not without hope for survival. In essence, the difference seems to have been between a *too* premature birth and a simply premature birth.³³

However, determining the age of the fetus at birth was a complicated matter because the exact time of conception remained so elusive. Ploucquet noted that a false calculation of the timing of conception likely accounts for the more extreme instances of severely premature babies surviving. He argued that the word of the mother regarding the timing of conception is not always to be believed, as mentioned above, since she might not understand fully the signs of pregnancy. The best way to determine the duration of gestation was therefore to examine the corpse itself, bringing the discussion full-circle.³⁴ Even by the early 19th century, these questions remained without a clear consensus. Pinpointing the moment of conception remained nearly impossible. Physicians also continued to debate the finer points of fetal viability, which varied wildly depending on innumerable observable and unobservable factors. Finally, answers of fetal age and viability still provided no definitive proof of live birth, not to mention cause of death.

9.5 The Rise and Fall of the Lung-test

Even if an infant corpse was determined to have been full-term, the vital question remained: had it died before, during, or after birth? A fetus that was not quite full term, perhaps around seven or eight months' gestation, could be born living or dead, without necessarily raising suspicion. Observations about the maturity of the fetus, while useful, could not determine if the child had actually been born living; they only give an indication that it could have been living at the time of birth. Physicians looked to other procedures to ascertain whether the child had actually lived after childbirth. For many, the answer lay in the internal organs. A complete autopsy included an external examination for injury, as well as a dissection to evaluate the organs. Physicians sought to ascertain whether internal organs appeared to have developed normally and

33 Büttner, *Vollständige Anweisung*, 8.

34 Ploucquet, *Abhandlung über die gewaltsame Todesarten*, 202–203.

healthily. They looked at everything from the liver to the spleen, for signs of proper growth. They examined the intestines with particular care, which, based on whether the meconium had been passed, could reveal if there had been life after parturition.³⁵

But it was the lungs that were thought to hold the key to this all-important question. By the mid-17th century the so-called *Lungenprobe*, or lung test, became the standard method for determining if the corpse was that of a fetus that died before birth or a child that had died after birth. That there was a fundamental transformation of a fetus's lungs at parturition is an idea that dated back to the ancient Greek physician Galen.³⁶ William Harvey, in his observations of the circulation of blood explained that the lungs change colors at birth and remain changed even after infant death; he suggested that this difference could be used to determine whether a child died before or after birth. The idea was furthered by Jan Swammerdam, also the discoverer of red blood cells, who concluded that the lungs of an infant born living would float while those of a stillborn would sink. His test became known variously as *docimasia pulmonum hydrostatica*, the "hydrostatic test," "flotation test," or simply, the "lung test." An anatomist in Bratislava named Karel Rayger first suggested in 1676 using the lung test in cases of infanticide, and the first recorded instance of its use in such a case was in 1681 in Germany.³⁷

This test immediately became popular across Europe, as authorities sought higher levels of evidence in forensic investigation. Soon, despite early concerns about reliability, the majority of physicians agreed that this was a useful tool in forensic examination. Multiple treatises stated that the lungs of a child who had been born alive, and thus had taken in air, were whitish, thin, and light, while those of a child who had died before birth were reddish, dense, and heavy.³⁸ After initial observations were recorded, the lung test itself was completed. The procedure involved placing the lungs in water: if the lungs floated, the child had drawn breath, and so had been born living; if not, then the corpse was of a fetus which had died in the womb and had been stillborn. In one autopsy report, Wilhelm Bucholtz described how he conducted the lung test:

35 See, for example, the reports of Bucholtz and many others.

36 Hart, "*Docimasia pulmonum hydrostatica*: From Galen to Ploucquet and back again." On the lung test in Northern Germany, see Häßler and Häßler, "Infanticide in Mecklenburg and Western Pomerania," 85–87.

37 Watson, *Forensic Medicine in Western Society*, 107, and Fischer-Homberger, *Medizin vor Gericht*, 281–282.

38 Bucholtz, *Beyträge zur gerichtlichen Arzneygelahrheit und zur medicinischen Polizey*, vol. 3, 26–28.

Both lungs, in addition to the heart and the thymus gland, were cut out of the chest, and together, were placed in a bowl in which there was about 4 liters of fresh water, where they floated on the surface next to the heart and the thymus gland. But when the lungs were separated from the heart and the thymus gland, and both cast separately into the water, they sank immediately to the bottom. Both lungs when cast individually into the water and submerged several times, and each time the lungs returned to the water surface.³⁹

The theory behind the lung test was the idea of a fundamental shift in bodily functions that occurred at childbirth. Ploucquet describes this shift and the resultant change in the physical attributes of the lungs as follows:

After the birth, there are two main changes in a living child: namely, the intake of breath, and the alteration of the circulation. In the mother's womb, the child is surrounded by water and therefore, if it could make the motions of drawing in breath, it would pull water, not air, into its lungs. As soon as it comes into the open air, it naturally begins to draw in breath, or air into the windpipes and into the lungs; through this, the smallest branches of the windpipes and the ends thereof are stretched out for the first time, the blood vessels get more room, and are set in a position to hold a greater amount of blood in them: this brings about the greatest difference between a lung, into which no air has yet been penetrated, and one which has drawn breath.⁴⁰

39 Bucholtz, *Beyträge zur gerichtlichen Arzneygelahrheit und zur medicinischen Polizey*, vol. 3, 11. "Beyde Lungen wurden nebst den Herzen und der glandula thymus aus der Brust geschnitten, und zusammen in eine Schuessel, worin ohngefahr 4. Maass frisches Wasser war, geworfen, wo sie nebst den Herzen und der glandula thymus auf der Oberflaeche schwammen. Als aber beyde Lungen von dem Herzen und der glandula thymus abge-sondert, und beyde letztere besonders in das Wasser geworfen wurden, fielen solche sogleich zu Boden. Die beyden Lungen hingegen einzeln in das Wasser geworfen, und oefters untergetaucht, stiegen jederzeit sogleich wieder auf die Oberflaeche des Wassers hinauf."

40 Ploucquet, 141. "Nach der Geburt gehen ordentlicher Weise zwey hauptsächliche Veränderungen mit einem lebenden Kinde für, nemlich das Athemholen, und die Abänderung des Kreisslauffes. In Mutterleib ist das Kind mit Wasser umgeben, und würde folglich, wann es die zum Athemholen erforderliche Bewegungen machen könnte, nicht Luft, sondern Wasser in die Lunge ziehen. Sobald es aber an die freye Luft kommt, so fängt es gewöhnlicher Weise an, Athem zu holen, oder Luft in die Luftröhre und in die Lunge zu ziehen; Hiedurch werden die kleinsten Zweige der Luftröhre und die Enden derselben zum erstenmahl ausgedehnt, die Blutgefäße bekommen mehr Raum, und werden in den Stand gesetzt, eine grössere Masse von Blut in sich zu fassen: Daher entsteht der

The lung test was used across Germany in the 17th and 18th centuries. While physicians acknowledged the test's imperfections – as discussed below – it was still considered to be the most reliable indication of whether the newborn had ever lived outside the mother's womb. There was no other method that could answer this most vital of questions, and so the lung test was recommended by university physicians and was practiced by local city-appointed physicians in their forensic examinations. Lungs that sank did not entirely exonerate the mother and did not determine whether there had been any sort of "foul play" involved in the death of the fetus, but did motivate the prosecution to approach the case as a potential abortion, rather than an infanticide, or vice-versa.

The important role of the lung test in actual infanticide investigations is demonstrated by the 1692 case of Anna Barbara Hauin in Augsburg. Hauin was found guilty of infanticide and executed. The lung test, as performed by city physician Lucas Schröck, proved to be the determining factor of her case. Schröck asserted in his forensics report that "the lungs were fresh, and when I had them laid in water, they floated high. Therefore, I conclude that this child came into this world living and drowned in the water," referring to the privy into which Hauin gave birth.⁴¹

Such evidence was damning and Hauin would have been hard-pressed to defend herself against it. It is unclear if she had been informed of what the physicians had concluded with the lung test, but the language attributed to the prosecution in her interrogation reveals their certainty. The prosecution returned again and again through several rounds of interrogation to asking Hauin if the child had ever lived. In the first round of questioning, they asked her, "whether or not the child had come from her living, and whether or not she then heard it cry?" She replied, "she might believe that it was living, but she did not hear it cry, and could not say." Anna Barbara Hauin's denial left a discrepancy between her words and the findings of the physicians. This discrepancy needed to be resolved, so the council pressed on through more rounds of interrogation.

Because of the results of the lung test, the prosecution had determined what the "truth" was, and they aimed to bring Hauin's testimony around to fit it. Thus, despite Hauin's repeated denials in the first round of questioning, the council pressed forward with the goal of pushing her to acknowledge that the

grosse Unterschied zwischen einer Lunge, in welche noch keine Luft gedrungen, und einer solchen, welche Athem geschöpft hat."

41 Stadtarchiv Augsburg, *Urgichten*, Anna Barbara Hauin, 31 July 1692. Stadtarchiv Augsburg, *Strafbücher*, Anna Barbara Hauin, 31 July 1692. "Die lunge ist frisch gewesen, und als ich sie in wasser legen lassen, in der höhe geschwommen, dannenhero schliesse, dass dises kind lebendig auf die welt kommen, und in dem wasser erstickhet seye."

child had lived. They did so by framing their questions based on the physicians' findings that the child had lived and breathed. They asked if she had had the intention to kill her child when she gave birth over the privy, or if she had the intention that it die when she left it in the water and waste. Several days later, the council asked her again, "Whether after the birth she could not hear the child crying, or could see it moving?" She replied that "she neither heard it crying nor saw it moving."⁴² In response to these questions, she denied any responsibility for the death of her child, but did not have an opportunity to repeat her claim that the child had never lived. The physicians' testimony thus determined the progression of the eventual 92 questions that comprised Hauin's interrogation; it prolonged her interrogation despite her repeated and initially consistent testimony. Eventually, the under continual interrogation, the use of torture, and consistent pressure, Hauin confessed. The course of the interrogation and use of torture were all based on Schröck's confident, and in the mind of the prosecution, conclusive, testimony that the child had lived.⁴³

Despite the certainty assigned to the lung test by physicians like Lucas Schröck, discomfort with the lung test grew over time. By the late 18th century, the lung test had come under closer scrutiny by physicians across Germany and Europe. Leading experts on forensic investigation questioned its accuracy, noting the possibility of false negatives or false positives. Büttner, Ploucquet, and their contemporaries raised concerns about the many circumstances which might cause the lung test to show false results. Büttner explained how decomposition could alter the outcome of the lung test: "it is possible that the lungs of a child which was truly stillborn might float in water, if the lungs are very rotten, because the decomposition of the entire body, and also of the lungs makes them light, so that the latter float in water, like those that had really taken in air."⁴⁴ On the other hand, Büttner also claims that the lungs of a child who was born living, but had been suffocated immediately, would sink, potentially falsely exonerating a murderer.⁴⁵ He clarified that "one should not look only at whether the lungs float, nor only at the pale red color of the same, nor only at the expansion of the alveoli, but should take all three together," in order

42 Ibid. "Ob sie nach der geburt ds kind nicht schreyen hören, oder gesehen ds es sich gerührt?" "Gar nichts habe es wider gehört schreien noch gesehen das es sich geregt."

43 Ibid.

44 Büttner, *Erörterung einiger, bey Gelegenheit einer todtgebohrnen zweyköpffigen und einleibigen unreiffen menschlichen Frucht*, 11. "Es kan eines würcklich todt gebohrnen Kindes Lunge im Wasser schwimmen, wann dieselbe sehr faul ist, weil die Fäulung den gantzen Körper, also auch die Lungen leicht macht, dass letztere alsdenn im Wasser schwimmen, als solche, die würcklich Luft eingezogen haben."

45 Büttner, *Vollständige Anweisung*, 68.

to make a ruling on whether the lungs had breathed air.⁴⁶ Justus Christian von Loder summed it up, “although the lung test has the appearance of the truth, it is nevertheless doubtful, if not supported by other indications, from which the guilt or innocence of someone accused of infanticide might be determined.”⁴⁷

Wilhelm Bucholtz also added to the list of conditions which might complicate the lung test: “with a child who has lived after birth and has taken air, one observes that the lungs float in water, only if they have no hardening or buildup of pus or blood clots, which quickly becomes apparent when the lungs are cut open.”⁴⁸ Several physicians provided multiple examples from their own forensic examinations of times when the results of the lung test were apparently contradicted by other findings from the autopsy or information from witness statements, confirming the life or death of a newborn.

Yet the lung test was difficult to replace. No other observation or test could match what was supposed to be the straightforwardness and definitiveness of the lung test; there was the potential for a clear yes or no answer, a certainty that appealed to the 18th-century sensibility. Even beyond the 1770s, when criticism of the method started to mount, physicians continued to use it, while acknowledging its drawbacks, for lack of a better alternative. Bucholtz himself used the lung test repeatedly in cases of suspected infanticide, but not without words of caution and qualification, citing Büttner on the effects of decomposition on the lungs. He also bolstered his results from the lung test with additional evidence – such as indications of foul play or of organ function – when possible.⁴⁹

As a leading expert in forensic examination, Ploucquet was particularly concerned with the accuracy of the lung test. His frequent use and close study of the lung test on the corpses of newborns led him to propose a new method, which he explained in his 1781 work, *De nova pulmonum docimasia*.

46 Ibid., 42. “[...] dass man weder auf das Schwimmen der Lungen allein, noch auf die blasse rothe Farbe derselben allein, noch auf die Ausdehnung der Lungenbläschen allein sehen, sondern alle drey zusammen nehmen.”

47 Justus Christian von Loder, as cited in Schmitt, *Neue Versuche und Erfahrungen über die Ploucquetsche und hydrostatische Lungenprobe*, 5. “Obgleich die Lungenprobe den Schein der Wahrheit an sich trage, so seye sie doch zweifelhaft, wenn nicht andere Beweisgründe hinzutreten, aus denen die Unschuld oder Schuld einer auf Kindermord angeklagten Person ausgemittelt werden könne.”

48 Bucholtz, *Beyträge zur gerichtlichen Arzneygelahrheit und zur medicinischen Polizey*, vol. 3, 24. “Bey einem Kinde, das nach der Geburt gelebt und Othem geholt hat, beobachtet man, dass dessen Lungen im Wasser schwimmen, wenn nemlich keine Verhärtungen oder Anhäufungen von Eiter oder Blutklumpen in den Lungen sind, welches sich aber bey der Zerschneidung der Lungen sehr bald offenbaret.”

49 Bucholtz, *Beyträge zur gerichtlichen Arzneygelahrheit und zur medicinischen Polizey*, vol. 1, 48–56.

Ploucquet suggested that rather than simply testing the whole lungs and then pieces of the lungs, which can only be suggestive of an answer rather than a definitive determination, examining physicians instead consider the ratio of body weight to lung weight. This method, Ploucquet argued, would provide the same information that the original lung test was supposed to: whether or not the lungs had respired. Ploucquet's new method was based on his theory that lungs which had respired had also experienced an increase in blood flow, and therefore were heavier than lungs which had not respired.⁵⁰ Ploucquet's innovations showed a desire to persist with the basic concept of the lung test while also moving forward based on scientific findings.

Indeed, the difficulties with the lung test that had become apparent by the 1770s and 1780s were a sign of greater changes taking place in the legal and medical worlds. Forensic and judicial standards were raised across Germany,⁵¹ a transformation which became apparent in the debate over the examination of infant corpses, as well as the criticisms of the lung test. Examining physicians grew more hesitant to make decisive declarations about the state of infant corpses. They hedged their conclusions with lengthy explanations of possible alternatives. Without a clear physician's statement that the infant had died an unnatural death, it became more difficult for the prosecution to reach half-proof to proceed to torture. The problems this trend presented were compounded by the increasing abhorrence expressed towards the use of torture in general, as Enlightenment-era thinkers publicly expressed their concerns and doubts. With both the lung test and torture falling out of favor, prosecutors faced a conundrum. Was there any reliable method to determine truth?

Peter Camper, a Dutch physician whose work, *Examination of the Signs of Life and Death in Newborn Children*, was translated into German in 1777, examined these frustrations with the lung test and torture. He strongly refuted others who suggested using torture to confirm the findings of the increasingly distrusted lung test. Camper repeatedly encouraged extreme caution in infanticide cases for many reasons, and roundly condemned torture:

Who does not shudder at this thought [of the use of torture]? Must torture, this shameful tool which robs humanity of its honor, must the gruesome torture make worse the doubt and suffering of the unfortunate, these sorrowful creatures [the mothers]? Which bloody horrors will one pile on each other in order to protect virtue?⁵²

50 Wessling, "Infanticide Trials and Forensic Medicine," 135–136.

51 *Ibid.*, 137.

52 Camper, *Abhandlung von den Kennzeichen des Lebens und des Todes bey neugeborenen Kindern*, 9. "Wen schaudert nicht bey diesem Gedanken? Muss die folter, dieses die

And, in regards to its use to confirm the findings of the lung test:

Torture is such a bitter word for our ears, we who live in a century in which culture has instilled more tender feelings in us, and at least in cases in which the lungs sink, I want to preclude this [torture].⁵³

In 1806, the Viennese court physician Wilhelm Joseph Schmitt published an entire book devoted to the problem of the lung test, citing critiques of its accuracy dating back to the mid-17th century. Schmitt sought a more sophisticated understanding of what happened to respiration during parturition and what defined death, stating, “The time has passed, when, supported by the authority of Galen, life and breath can be considered synonymous.”⁵⁴ Schmitt, like many others by the early 19th century, wanted something more concrete. By the end of the 18th century, the lung test was also being questioned in other parts of Europe. In England, where the lung test was in frequent use since mid-century, a leading surgeon had noted possible complications with the test as early as the 1720s. In 1774, the test was described by one Englishman as “very uncertain and precarious proof,” echoing the complaints of his German colleagues.⁵⁵

The ultimate problem with the lung test was, however, that regardless of its accuracy, it still did not answer the question of whether the mother had actually done anything to cause the death of her child or fetus. This fact was not forgotten in forensic reports, in which physicians still looked for signs of violence. For Camper, Ploucquet, and many others, concerns about the accuracy and usefulness of the lung test outweighed the benefits, and these physicians continued to press for improved methods and alternatives to the traditional processes.⁵⁶

Menschlichkeit so entehrende, so schändliche Werkzeug, muss die grausame Folter die Verzweiflung und das Elend dieser Unglückseligen, dieser harmvollen Geschöpfe noch vergrößern? Welche blutige Grausamkeiten häufet man nicht aufeinander, die Tugend zu schützen?”

53 Ibid., 106. “Das Foltern ist ein so rauhes Wort für unsere Ohren, die wir in einem Jahrhundert leben, worin uns die Kultur zärtlichere Empfindungen eingeflößet hat, und diesem wollte ich wenigstens in diesem Falle vorbeugen, wenn die Lungen sinken.”

54 Schmitt, *Neue Versuche und Erfahrungen über die Ploucquetsche und hydrostatische Lungenprobe*, 1–8. “Es sind nicht die Zeiten mehr, wo man, auf Galen’s Autorität gestützt, Leben und Athmen für synonym erklärt.”

55 Jackson, “Suspicious Infant Deaths,” 77.

56 For an examination of forensics and infanticide in Hapsburg lands, see the various works of Gerhard Ammerer, particularly “Anatomische Sektion und Gerichtsmedizin. Zur Rolle der Ärzte in den Strafverfahren und den Diskursen um den Kindsmord im 18. Jahrhundert.”

9.6 An Uncomfortably Uncertain Future

The decline of the lung test was just one factor, albeit a crucial one, in bringing about considerable and elemental transformations in how infanticide was prosecuted. Medical forensics challenged standards of proof just as torture, which had been the main avenue to “truth” in criminal investigations, was also coming under scrutiny and changing.⁵⁷ In some locations, the use of torture was evolving as authorities attempted to uncover more effective methods.⁵⁸ This multifaceted revolution left little basis for assurance in infanticide trials. Larger forces were also at play at the end of the 18th century. Not only were authorities increasingly uncomfortable with the use of torture on women, they were also more averse to executing women. Social mores were shifting to assign additional blame for infanticide to the men who impregnated women out of wedlock and the severe circumstances that forced the hand of unwed mothers.⁵⁹ These factors would come together in the early 19th century to result in a legal about-face, in which infanticide would be defined as a crime committed under extenuating circumstances and categorized as a less severe crime than typical homicide.⁶⁰ As early as 1803, for example, Austria had already dropped the death penalty for infanticide. By the 18th century, forensic examination of infanticide had aided in dramatically shifting the discourse on infanticide in terms of public and legal perception of both the perpetrator and the circumstances.⁶¹ Changing ideas about the capabilities of forensics was simply one aspect of a much wider ground shift in criminal trials that was taking place in the 18th and 19th centuries.

Even so, the lung test was used well into the 19th century and beyond. Troublingly, it was even used as recently as 2015.⁶² That the lung test continued to be used decades and centuries past the initial expressions of concerns

57 Fischer-Homberger, *Medizin vor Gericht*, 277–292. For more on the role of forensic investigations and medical ethics in infanticide cases, see Geyer-Kordesch, “Infanticide and Medico-Legal Ethics in Eighteenth-Century Prussia.”

58 On the evolution of torture in the eighteenth century, see, for example. Härter, “Die Folter als Instrument polizeylicher Ermittlung im inquisitorischen Untersuchungs- und Strafverfahren des 18. und 19. Jahrhunderts,” and Langbein, *Torture and the Law of Proof*.

59 Johanna Geyer-Kordesch argues that medical investigations did contribute to the growing leniency in infanticide cases. “Infanticide and the Erotic Plot: A Feminist Reading of Eighteenth-century Crime,” 122.

60 Michalik, “The Development of the Discourse on Infanticide in the Late Eighteenth Century and the New Legal Standardization of the Offense in the Nineteenth Century.”

61 Ammerer, “Anatomische Sektion und Gerichtsmedizin. Zur Rolle der Ärzte in den Strafverfahren und den Diskursen um den Kindsmord im 18. Jahrhundert.”

62 Neyfakh, “False Certainty.”

illustrates not the reliability of the lung test, but the vital nature of the questions it sought to answer. Modern forensics still lacks a method for definitively determining if a corpse belongs to a fetus which died before parturition or a newborn baby who died after.⁶³ Where this distinction holds tremendous consequences for the mother, the idea behind the lung test has proven too convenient to entirely let go.

At the heart of infanticide and abortion trials was a search for truth, and early modern forensics continually grappled with the issue of what constituted truth, certainty, and authority. Infanticide and abortion trials challenged accepted knowledge in a number of arenas. The push to categorize crime after the *Carolina* provoked discussions of what defined and demarcated life itself, both in a theological and in a medical sense, and even who had the authority to make such a determination. A drive to prosecute crime more thoroughly led to a greater use of torture, which fed a push for more certainty in the use of evidence. For a time, prosecutors used forensics and torture together to achieve convictions, as in the case of Anna Barbara Hauin. But the field of forensics grew and torture declined, and ideas about what constituted and could reveal “truth” changed. The more that forensics grew, the more apparent its limits were. More research uncovered more nuance and made definitive conclusions more difficult. The standard for truth had been a suspect’s confession, setting a high bar for forensics to reach. The optimism of scientific advancement in the 17th and 18th centuries encouraged hope that infanticide and abortion could be more easily prosecuted; instead, the basis for firm knowledge was elevated. In infanticide and abortion cases, a definitive conclusion was just as difficult to reach as ever before.

63 Meehan, “UK doctor finds live birth test flawed in prosecution of El Salvadoran women.”
Große Ostendorf et alii, “Is the Lung Floating Test a Valuable Tool or Obsolete?”

Visum et Repertum: Medical Doctrine and Criminal Procedures in France and Naples (17th–18th Centuries)

Diego Carnevale

10.1 Introduction

The historiography on the origins of forensic medicine has long since shown that collaboration of professional healers (physicians, surgeons, barbers, midwives, apothecaries) in judicial enquiries was very frequent already in medieval courts.¹ These figures, usually closely involved in the mechanisms of corporate society, were questioned as expert witnesses, just as craftsmen were in other areas. In the process of the building up of judicial truth, the forensic report was an important piece of evidence, but the judge was not required to conform to it in any way.² Professional healers provided their contribution on various issues: verification of the type of wounds received by assaulted persons, certification of illness, of virginity, and much more. Therefore, the inspection of corpses in order to establish the cause of death constituted one of the many examinations that the judicial authority ordered these professionals to carry out. In this article, I deal only with this specific aspect, which in the 19th century became the main branch of forensic medicine.

The examination of corpses by experts specifically trained for that purpose became a common practice in Europe with the spread of the plague in the 14th century.³ The risk of having a whole city infected with a potentially devastating contagion forced municipal governments to provide themselves with permanent or temporary health officers able to recruit medical personnel to fight epidemics. Until the 18th century, dissection was the main method for determining if someone had died because of the plague. Therefore, the

1 As a recent contribution to that topic, see Turner and Butler, *Medicine and the Law*. The research to accomplish this article has been funded by the *laboratoire d'excellence HASTEC* (ANR-10-LABX-85).

2 See Pastore, *Il medico in tribunale*. About the importance of testimony and the notion of proof between the Middle Ages and the Early Modern period, see Alessi, *Prova legale e pena*; Rosoni, *Quae singula*.

3 See Pastore, *Le regole dei corpi*, 37–41.

authorities needed people with experience in dissections in order to arrange countermeasures from the earliest signs of outbreak of the disease.

Beginning from the first half of the 16th century, with the undoubted advance in the knowledge of anatomy, as well as the development of the inquisitorial procedure in the courts of much of continental Europe, the use of professional healers also in judicial inquiry became more frequent.⁴ As has been rightly pointed out, the main purpose was to “render objective the material circumstances of the accident, the blood crime, [or] the suicide.”⁵ However, any assessment was subordinated to the will of the judge, who was required to establish, among other things, whether the medical inspection was reliable or not. This caused many difficulties that jurisprudence was struggling to resolve, while the judicial authorities did not allow the medical personnel the possibility to develop autonomous procedures within judicial ones.⁶

This essay analyzes the place of medico-legal expertise in 17th- and 18th-century medical and juridical treatises. It does so by comparing two national contexts in continental Europe: France and the Kingdom of Naples. Despite their differences, France and the Kingdom of Naples shared many similarities in terms of the relationship between judicial power and medical knowledge at the beginning of the early modern period. As to France, the subordination of the medical expert to the magistrate slowly disappeared in the course of the 18th century, when medical knowledge started to be applied to forensics. Concerning the Kingdom of Naples, this process did not occur until the transformation of the judiciary system at the end of the Old Regime.

The overall goal of this essay is to attempt to determine which factors influenced this divergence the most. To this end, the essay focuses on a specific aspect of medico-legal expertise, namely, the medical report, a document resulting from the expert's examination of the corpse and which objectified the expert's knowledge and practices. Historiography has occasionally paid attention to this topic in the French context;⁷ yet, it has neither explored the medical doctrines which deal with the writing of the reports, nor has it tried to explain them in relation to contemporary criminal procedures. Finally, with

4 See Crawford, “Legalizing Medicine,” 95, who emphasizes the difference with the English context, where the accusatory model persisted. About the development of the study of anatomy, see Carlino, *La fabbrica del corpo*.

5 Porret, *Sul luogo del delitto*, 21.

6 In this regard, see Brandli and Porret, *Les corps meurtris*, 36.

7 See Brandli et Porret, *Les corps meurtris*, 57; Lecuir, “La médicalisation”; Rabier, “Écrire l'expertise.”

regard to the Neapolitan case, research about these issues is scarce and not specifically dedicated to the topic addressed in this essay.⁸

10.2 Judicial Procedures and Medico-legal Doctrine in 16th-Century France

At the beginning of the 17th century, French judicial procedure allowed judges to call for the cooperation of professional healers to accumulate evidence. The old ordinances of 1536 authorized barbers, surgeons, and any other “experienced people” (*gens expérimentés*) to write the expert reports, leaving to judges the duty to choose that personnel.⁹ In Paris, in the case of suspicious deaths, the “archers and sergeants” (*archers et sergens*) had to go to the crime scene in order to “mark [the corpse] on the forehead.”¹⁰ Archers and sergeants were some of the many forces in the French capital who acted on behalf of the *Prévôté*, the court of first instance located in the Châtelet fortress. Placing the royal seal on the forehead of the corpse sanctioned its appropriation by the sovereign, thus preventing anyone from touching it.¹¹ Such a procedure aimed at avoiding a fast burial, allowing the recognition of the body.¹²

Afterward, in the presence of the judge, or more likely of a *greffier* (court clerk), the crime scene was examined and the body was brought to the Châtelet to be examined by the medical staff.¹³ In fact, the court had one physician and

8 There is no research on medical personnel in Neapolitan courts and more generally on forensic medicine in the Kingdom of Naples during the early modern period, but some important information can be found in Musi, *La disciplina del corpo*, and Gentilcore, *Healers and Healing*.

9 Lunel, *La maison médicale*, 185.

10 Machoud, *La pratique iudiciaire*, 418.

11 The marking of the corpse with the seal is also confirmed in following practices: “If it is a dead body, [the judge] must have his seal placed on the forehead with his signet of green wax by his Clerk [*Greffier*] or one of his Sergeants in order to bring it to Justice and prevent it from being removed; Then he must order that it should be transferred to the Geole, so that it may both be recognized [...] and be seen and examined [*vu et visité*] by the Surgeons and Physicians” (De Ferriere, *Le nouveau praticien*, 555). The “Basse-Géole,” literally the “low prison,” was a place designated as a deposit for corpses in the Châtelet, in which autopsies were also performed. In the 18th century, it assumed the name of *Morque*: see Denis, *Une histoire de l'identité*, 348–349 and Bertherat, “La mort en vitrine,” 181–196.

12 Lizet, *La pratique civile*, 418. If the body was already buried and the circumstances of the death were not clear, the laws required the judges to order its exhumation: see Machoud, *La pratique iudiciaire*, 304.

13 Lizet, *La pratique civile*, 418–419.

two “sworn” surgeons, namely people who had taken an oath as holders of a royal office.¹⁴ After the examination of the corpse and the drafting of a report, the judge could arrange for visits by those who knew the deceased and begin the investigation by interrogating the witnesses. Subsequently, the family members were allowed to proceed with the burial, whereas the unclaimed bodies were entrusted to the sisters of St. Catherine’s hospital.¹⁵

The procedure in force in the capital was also customarily adopted in the provincial courts. Upon the finding of a corpse, the judge was supposed to go to the place accompanied by his “clerk, the *procureur d’office*, one or two sergeants, and some master surgeons to visit and report” the body.¹⁶ The expression “visit and report” (*visite et rapport*) was the translation into the vernacular of the Latin legal phrase *visum et repertum*, by which jurisprudence meant the examination of the crime scene and the investigation regarding the body.

The phases briefly described here would have to take place in a fairly short period of time, in order to avoid both the dispersion of the evidence and the fleeing of the guilty. Therefore, the report had to be drafted quickly and in a clear way for the investigator. However, practitioners and other professional healers were not specifically trained for this duty, the learning of which evidently took place through practice.¹⁷ Only in the last decades of the 16th century did French medical literature begin to pay some attention to the issue.

The 28th book of the works of Ambroise Paré is entitled *Des rapports, et du moyen d'embaumer les corps morts*, published in 1575.¹⁸ It was a short essay that aimed to provide young surgeons with the basic elements for writing a good medical report. In concrete terms, Paré presented an example of a report for each of those cases that most frequently required medical expertise. Through these examples, he intended to provide the reader with the correct techniques of argumentation for making it possible to comprehend, in the vernacular, complex knowledge that was usually expressed in Latin. However, the few pages dedicated to the subject by the famous surgeon did not answer all the questions posed by the justice system to the renewed discipline of anatomy.

14 De Blégnny, *La Doctrine des raports*, 15. The term can give rise to ambiguity because even surgeons registered with the corporation were called “sworn” (*jurés*). However, no court admitted as an expert any surgeon who was not registered with the corporation.

15 Lizet, *La pratique civile*, 421.

16 Machoud, *La pratique iudiciaire*, 303.

17 Lunel, *La maison médicale du roi*, 40–41.

18 Paré, *Œuvres*, 768.

Other essays, published in the following years, that in some way addressed the problem were limited to summarizing what Paré had already written.¹⁹

In order to reduce inaccuracies in expert reports, and thus also many procedural disputes in courts, in 1606 Henry IV conferred on his first physician the privilege of issuing patents for physicians and surgeons who wanted to serve as tribunal experts.²⁰ However, it was a decision that also limited the arbitrariness of judges in the selection of the experts. The new physicians and surgeons were “sworn for writing reports” (*jurés commis aux rapports*). As agents (*commis*) delegated by a royal officer, they enjoyed privileges similar to those of the sworn surgeons of the Parisian Châtelet, and their jurisdiction concerned the urban area of the place where they were appointed. In general, there were two of them for each city, and they had to countersign the reports produced by every other colleague in their jurisdiction. In that way, the monarchy established a monopoly that met strong resistance by both tribunals and corporations.²¹ In the smaller centers and in rural areas, however, the judges continued to contact local experts, including barbers, who had to take an oath and sign a document of the truthfulness of their expert examination.²²

The monarchical policy of control over the selection of medico-legal personnel resulted in an increase of the judicial value of the medical report. In fact, the *commis* of the first physician represented the sovereign, unlike their colleagues without the patent. Thus, the *commis*' dignity was similar to that of the medical personnel of the Parisian Châtelet, who, as holders of an office directly conferred by the sovereign, enjoyed a formal authority not far from that of the judge himself. However, most experts working in France continued to be unpatented, while hostilities with local powers persisted.²³

In 1650, publication took place in Angers of *Les moyens de bien rapporter à iustice les indispositions et changements qui arrivent à la santé des hommes*. The author, René Gendry, was a “master surgeon in Angers, and *commis* of the first physician of the King for the reports and verifications [in] justice.”²⁴ Hence, he was a member of the restricted group of experts with a patent, and his book was one of the first attempts in the French language to reconcile medical

19 See Guillemeau, *La chirurgie françoise*; Pineau, *Opusculum physiologum*; and Pigray, *Epitome præceptorum*.

20 See Lunel, *La maison médicale*, 185–186.

21 Ibid.

22 See Machoud, *La pratique iudiciaire*, 303–304.

23 See Lunel, *La maison médicale*, 188.

24 “Maistre Chirurgien d’Angers, et Commis du premier Medecin du Roy pour les rapports et vérifications d’iceux faits par autorité de Iustice.” Gendry, *Les moyens de bien rapporter*, title page.

knowledge, anatomical practice and criminal procedure requirements. The essay was published in octavo by Pierre Avril “printer and bookseller of the university”; in fact, it appears to be intended for a public of students or practitioners in health professions.²⁵

The first part consists of a synthesis of general physiology, characterized by the Aristotelico-Galenic doctrine, within which the author distinguishes different behaviors of the bodily humors according to the physical characteristics of the subjects. After this, he examines several typical cases of medico-surgical practice (wounds, pregnancy, contagious diseases, impotence, sexual violence). The last chapter of this first part, dedicated to *De la visite des morts*, concerns the specific topic of autopsy. From the outset, Gendry analyzes the relationship between nutrition and dispersion of vital fluids in the individual. In fact, according to the Galenic tradition, the lack or the excessive consumption of drinks and food could alter the humoral balance. Therefore, the author provides useful suggestions for recognizing if the death has occurred because of such a lack of equilibrium by examining the appearance of the corpse and the alteration of its “soft parts.” After this, he explores the effects of suffocation, especially in the case of drowning, and the effects of poisoning. Regarding the latter case, however, the author provides little clarification, although it was a crucial issue, as we will see later. The second part of the essay deals with the writing of the medical report, starting with its legal definition:

Reports are nothing else than acts that carry in themselves some testimony that the surgeon provides for justice to strengthen the proofs, whether one investigates accidents or violence suffered, on which judges want to inquire for the good of the policy.²⁶

That passage is significant because it reveals the persistence of the subordinate condition of the medico-legal expert compared to the authority of the judge. The report can have the same value as eyewitness testimony, the most important evidence according to criminal doctrine, only if the magistrate considers it to be truthful. Following the juridical literature, Gendry identifies three types

25 Nevertheless, the essay must not have had a wide circulation, given the absence of new editions and the considerations expressed by Antoine Portal after more than a century: “cet ouvrage n’est pas aussi connu qu’il devoit l’être.” Portal, *Histoire de l’anatomie*, vol. II, 667.

26 “Les rapports ne sont autres choses que des actes qui portent avec soy un certain témoignage, que le Chirurgien rend en face de iustice pour fortifier les preuves, que l’on recherche des accidents ou violences arrivées, dont les iuges veulent s’informer pour le bien de la police.” Gendry, *Les moyens de bien rapporter*, 176.

of medical report: the first one is a “simple written enunciation” on the state of health of an individual, which is similar to a certification.²⁷ The second one is the *procès-verbal*:

This act is more relevant than the former, especially because it expresses, in a wider statement, the places where it was produced, upon the mandate of which judge, and the persons in whose presence the surgeon did the examination, and likewise it will declare the condition of the subject examined, the age, gender, and state in which it was found, in order to draw up his *procès-verbal*, through which the judges can [...] order assistance for the patient, so he can be helped more easily, or the burial of the dead, in order to proceed with his trial.²⁸

The medical report written in the form of a *procès-verbal* was the document demanded most frequently by magistrates because of its official nature; in that sense, it was the true official medical report. Nevertheless, Gendry mentions also that the third type of medical report, the “verification,” is important because it was produced under oath in the presence of the judge and his clerk. This document could be drawn up as an integration of the previous two or as the only medical report, according to the preference of the judge.²⁹ In order to complete the explanation, the author provides some examples of the three types of report previously illustrated, supplemented by further “already completed” models for the most common cases (poison, plague, lightning, supposed pregnancy, etc.). From a medical point of view, the contents of these models are very concise with respect to those published by Paré; hence they were more in conformity with the needs of judicial procedure. In fact, scholars have amply shown that medical reports kept in court records were generally very short. Until the end of the old regime, the scheme of reference for writing expert reports remained unaltered, and not only in the French context.³⁰

27 Ibid., 177.

28 “Cet acte a plus de circonstances que le premier, d'autant qu'il exprime par une plus ample declaration les lieux où il se fait, par le mandement de quel iuge il se fait, et les presents devant lesquels le Chirurgien aura fait la visite, et mesme il declarera la condition du sujet qu'il a visité, l'âge, le sex et l'estat auquel il s'est treuvé, afin d'en dresser son procez verbal, par lequel les iuges puissent [...] ordonner ou de l'assistance du malade pour estre plus promptement secouru, ou de la sepulture du mort pour estre son procez plustost iugé.” Ibid.

29 Ibid., 178.

30 To understand the repetitive nature of this scheme, it is sufficient to compare reports presented in Pastore, *Il medico in tribunale*; Brioiist, Drevillon, Serna, *Croiser le fer*; Porret, *Sul luogo del delitto*; Rabier, “Écrire l'expertise”; Denis, *Une histoire de l'identité*; Brandli et

The medico-legal expert as illustrated by Gendry was still strongly linked to the late-medieval conception. His testimony played an important role in collecting evidence, but he was in a much lower position compared to the judge. As we have seen, the innovations introduced in 1606 were limited to cities alone, in a context of contrasts with local interest groups. With the accession to the throne of Louis XIV, the government resumed its centralizing attitude, allowing the medico-legal experts to form a professional and political body.

10.3 The Reforms of Louis XIV and the Birth of the “Official” Expert

The importance of medical expertise within French procedure increased after the publication of the Criminal Ordinance by Louis XIV in 1670. The sovereign allowed his subjects to ask physicians and surgeons for medical reports to be presented in tribunals. Experts had to swear to the truthfulness of their report, leaving to the judge the task of evaluating the contents and possibly resorting to a second opinion.³¹ Moreover, the Ordinance imposed in every examination ordered by a tribunal the presence of at least one surgeon patented by the first physician of the sovereign, in places where they already existed. It was a crucial change, because after that resolution, any other professional healer was formally put in an inferior condition compared to sworn physicians and surgeons.³²

By establishing the definitive passage to the inquisitorial system, the Ordinance instituted the secret investigation, requiring all testimony to be collected in writing. Criminal prosecution became similar to an administrative practice, in which the judge and those acting as royal officers enjoyed broad discretionary power. In fact, in order to mitigate this power, the new legislation required the confirmation of the verdict by a prerogative court in all judgments involving corporal punishment. This court could demand to see the acts of the trial and undertake new verifications.³³ Therefore, the medical report drawn up at the beginning of the investigations became even more relevant to the proper functioning of the judicial system, as it provided evidence of facts that could no longer be detected with the same accuracy after a certain time.

Porret, *Les corps meurtris*. The latter have schematically re-constructed the basic contents of the medical report from Genevan documentation, showing that it coincides with the prescriptions of the doctrine.

31 See Rabier, “Defining a profession,” 91–92; see also Lunel, *La maison médicale*, 188–189.

32 About the process of the professionalization of surgeons, see Gelfand, *Professionalizing*, and Rabier, “Defining a profession.”

33 See Godineau, *S’abréger les jours*, 44.

The innovations of the 1670 Ordinance and the subsequent clarification inspired the publication of a new essay on how to write medical reports by Nicolas De Blégny.³⁴ The author was a singular character: queen's surgeon in 1678, then physician of the duke of Orleans in 1683, he wrote numerous essays and he was the curator of the first French journal of medicine.³⁵ De Blégny was also "juré commis pour les Raports" at the "prévôté de l'hotel de Sa Majesté" and his essay begins with the explanation of the prerogatives of the sworn surgeons patented by the first physician. In the author's opinion, they were the only ones able to draw up a report in criminal cases.

In reality, the 1670 Ordinance did not change the situation in smaller centers, but it expressed a clear political position, which re-activated the opposition to the influence of the *commis* by local corporations and some tribunals in the provinces.³⁶ Further difficulties had already arisen in the 1660s, after the king's decision to give his first surgeon the faculty of appointing lieutenants in every community in the Kingdom in order to regulate and guide local corporations.³⁷ These provisions generated numerous conflicts over the prerogatives of surgeons patented by the first physician and those patented by the first surgeon.³⁸ The essay by De Blégny was conceived within this new context of contrast. In fact, he did not discuss any medical doctrine, focusing instead on the classification of medical reports, their formal content, and the situations that required their production.

The entire work insists on the indispensable role of medical expertise within legal procedures in order to provide the judge with "sufficient clarification to judge fairly."³⁹ The expert's word is no longer described as being dependent on a verification of truthfulness by the court. He is now a royal officer with his own administrative autonomy. The epistemological aspect appears secondary in the thought of the author, who recommends to his colleagues that

34 De Blégny, *La Doctrine des rapports*. Some considerations about this essay are in Rabier, "Écrire l'expertise," and Brandli and Porret, *Les corps meurtris*.

35 See the biographical information in Prevost and Roman D'Amat, *Dictionnaire*, vol. VI, 662b–663a. Other information is in Locard, *Le XVII^e siècle*.

36 Lunel, *La maison médicale*, 189–190.

37 See Gelfand, *Professionalizing*, 30.

38 See *Recueil des statuts*, in which all the measures in force in the Kingdom are collected. About the 1692 provisions, see also Lunel, *La maison médicale*, 190–192, 244–246, and Rabier, "Defining a profession."

39 "Donner aux Iuges des éclaircissemens suffisans pour juge équitablement." De Blégny, *La Doctrine des rapports*, 36–37.

they should write in “clear and intelligible terms, without attempting to appear learned by using Arabic, Barbarian, and Scholastic terms.”⁴⁰

De Blégny’s essay was in line with the policy of the Crown at the end of the century. The government aimed to complete the reformation process started in 1670 with a new set of measures to regulate medico-legal verifications and resolve the overlapping jurisdictions that had accumulated over time. In 1692, a Royal Edict established the abolition of all patents and the creation of a venal and hereditary charge of sworn surgeon (*chirurgien juré*) and sworn physician (*médecin juré*), in the respective numbers of two and one in each community of the Kingdom, extending de facto the custom of the Parisian Châtelet. The measure was only partially a reorganization of the medical professions. In fact, the multiplication of offices was a part of Louis XIV’s policy, used to ensure the recovery of public finances.⁴¹ The new holders of the charge were the only personnel authorized to carry out the medico-legal activity; in addition, as king’s officers, they were responsible for the behavior of other local professional healers, including the granting of licenses. The consequences of this change of status can be seen in the doctrinal production of the following years.

In 1703, Jean Devaux published *L’art de faire les rapports en chirurgie*, with D’Houry, the main scientific publisher in Paris. This was the first edition of an essay destined to become the main reference text until the revolutionary period.⁴² The author was an eminent figure in the Parisian context, as *prévôt* of the *compagnie des maîtres chirurgiens*, which was emancipating itself from its traditional subordinate position with respect to the physicians’ corporation, thanks to government support.

The first chapters are inspired by De Blégny’s previous work. Devaux claims the new condition as a “royal surgeon” created by the edict of 1692, the text of which he puts in an appendix together with other provisions on the same matter.⁴³ Nevertheless, the author’s interest in procedural aspects is utterly marginal. In fact, *L’art de faire les rapports* is different from any previous works because of the degree of in-depth treatment of medical and juridical issues. After all, as a member of an established politico-professional body, the medico-legal expert was now an officer for all practical purposes, whose testimony, and therefore the knowledge that he expressed, no longer required the constant support of legal doctrine and judicial authority.

40 “Il est très important que les Chirurgiens s’expriment en termes clairs et intelligibles, sans affecter de paroître doctes par des termes Arabes, barbares, et scholastiques.” *Ibid.*, 37.

41 See Lunel, *La maison médicale*, 192.

42 Devaux, *L’art de faire*.

43 See *ibid.*, 9 and Appendix. It is important to highlight that in the preamble Devaux shows that he knows the works of De Blégny but he does not mention Gendry.

In the more than 500 pages that follow the opening, Devaux addresses various types of expert investigations by carrying out wide-ranging analyses of medico-anatomical doctrines. Nearly half of the treatise is devoted to the main problem faced by surgeons, namely the different types of wounds, of which the author provides a comprehensive description, suggesting rules on how to observe them on both the living and the dead, and finally how to certify them. This is followed by the discussion of other frequent cases, such as infectious diseases, poisoning, drowning, and sex-related examinations. In this sense, Devaux's essay is more like that of Gendry, with which it shares most of the doctrinal references, especially Paré and the classical authors of the Galenic tradition.

It is worth exploring one of the most controversial issues: poisoning.⁴⁴ As we noted earlier, Gendry and De Blégny did not discuss that problem very much, although they mentioned some medical reports concerning this specific event. In contrast, Devaux admits the great difficulties in determining death by poisoning, even for an experienced examiner. According to the Galenic tradition, Devaux distinguishes two groups of poisons: those imported from the outside and those produced by the body as a result of humoral imbalance. The risk of confusing one with the other can lead to false diagnoses, causing the investigation to be misled. For this reason, the author invites colleagues to observe with the greatest prudence the marks left by poison. One of the most useful signs for distinguishing between the two different kinds of poisoning is the onset of fever, typical in cases of poison produced by the body, because it is a symptom of humoral imbalance.⁴⁵ More generally, the circumstances of the death can guide the expert in his assessment, for example when the victim was bitten by a suspect animal.

In addition to these considerations, Devaux reports five examples of cases involving poisoning.⁴⁶ The first one deals with a relatively simple case, namely when injuries are caused by a corrosive substance, whose signs are visible because of ulceration and the livid color of esophagus and stomach. In the second one, he considers the opposite event, in which the internal digestive organs present only a state of inflammation, which is the real cause of death, but no significant alteration, and consequently the absence of poisoning must be deduced. The third example is the treatment of a man in a life-threatening situation, because he has ingested a harmful substance. In this case, the subject's appearance is described as pale, nauseated, with burning stomach

44 For a long-period analysis of the phenomenon, see Pastore, *Veleno*.

45 See Devaux, *L'art de faire*, 378.

46 *Ibid.*, 397–405.

pain and strong halitosis, and the tendency to faint. Devaux suggests making the patient vomit, and then giving the vomited material to a dog. The sudden change in the state of health or the death of the animal constitutes evidence of the presence of poison. This was an ancient and widespread technique in the medical practice.⁴⁷ Unlike the classical doctrine, which allowed the use of any domestic animal, Devaux thought that it would be more useful to make use of a dog because experience showed that other animals, such as chickens and ducks, were able to ingest various substances that were harmful to humans without damage to their health.⁴⁸ The fourth model proposed by Devaux concerns the case of a person who ingested a medicine with effects that were too violent, deducible by the widespread presence of dark or black spots inside the stomach. Even in the last example, the Parisian surgeon suggests the examination of the esophagus and stomach to look for signs of poisoning.

Devaux's analysis was undoubtedly much more in-depth than that of his predecessors, as he examined all issues in detail and systematically. Not surprisingly, the success of *L'art de faire les rapports en chirurgie* lasted far beyond Devaux's death in 1729. A new edition, which appeared in 1743, includes many new models for writing medical reports, in addition to some corrections and a list of reference works, including Gendry and De Blégny, Paolo Zacchia and some German authors.⁴⁹

A further confirmation of the new context created by the rules of 1692 is given by another fundamental essay: the *Principes de jurisprudence sur les visites et rapports judiciaires*, published in 1753 by the lawyer Claude-Joseph Prévost. The book summarized all provisions concerning medical reports promulgated since the 1670 Criminal Ordinance.⁵⁰ Unlike 17th-century jurists, Prévost recognized the full doctrinal autonomy of the medico-legal expert. In discussing various types of wounds, he provided some examples with the purpose of suggesting which ones most frequently have a fatal outcome, concluding, however, that it is still necessary "to consult Paul Zacchias, famous Physician, the *Doctrine des Rapports en Chirurgie* of Blegny, [and] Devaux."⁵¹ Afterwards, when he analyzes the problem of recusal of the judge, Prévost argues that even

47 About the importance of Zacchia in defining an empirical approach to cases of poisoning, see Pastore, *Casi di venefici*, 249–265.

48 Devaux, *L'art de faire*, 379–380. Zacchia, instead, expressed doubts about this technique: Pastore, "Médecine légale," 17–35.

49 See Devaux, *L'art de faire*, 1743, XI–XII. In the years around the turn of the century, a broad reflection on forensic medicine developed in the German-speaking area: see Fischer-Homberger, *Medizin vor Gericht*.

50 Prévost, *Principes*.

51 *Ibid.*, 214.

the medico-legal expert may be subject to that procedure, because “those who make reports perform more the function of a judge than of a witness.”⁵²

The French case shows that the importance of the discipline within judicial procedure depended mainly on the politico-administrative status of those who practiced it. At the end of a reformation process lasting more than twenty years, the monarchy formed a body of professionals formally dependent on the king, and thus endowed with a part of his political power. During the 18th century, this decision had significant implications, as it allowed the consolidation of the discipline and its alliance with public medicine, supported by important institutional organizations such as royal academies.⁵³ The advent of the Revolution allowed the union of medicine and surgery thanks to the activity of a group of “hygienists,” including many members of the medico-forensic discipline.⁵⁴

In 1790 François Chaussier, an important member of this group, proposed the establishment of an official procedure for drawing up medico-legal reports, stating that the current practice was based on the suggestions offered by four authors only: Paré, Gendry, De Blégny, and Devaux.⁵⁵ In support of the need to intervene in this area, Chaussier recalled that in Italy and Germany the issue had been widely discussed until recent times.⁵⁶ The example of the Kingdom of Naples has some interesting terms of comparison with the French example that can help to clarify the fundamental role of the institutional context in the process of the growing importance of the medico-legal expert.

10.4 Fiscal Medicine in the Kingdom of Naples

In the 17th-century criminal procedure of the Kingdom of Naples the investigation was carried out according to the inquisitorial model. As in France, the referring tribunal was the court of first instance of the capital: the Grand Court of the Vicaria, which had at its disposal one physician and one surgeon,

52 “On droit que ceux qui font les rapports font plus la fonction de Juges que de témoins, et il plus il sera vrai de dire qu'ils sont sujets à recusation [...], comme on le fait à l'égard des Juges mêmes.” Ibid., 191.

53 See Gelfand, *Professionalizing*. About the alliance between the expert and the judge, see Porret, *Sul luogo del delitto*, 171.

54 See Jorland, *Une société à soigner*; Zuberbuhler, *Écrire l'histoire*; and Lecuir, “La médicalisation.”

55 Chaussier, *Observations*, 54–55.

56 Indeed, concerning the Italian states, medical doctrine was attentive to all issues related to the drafting of the medico-legal report, especially, as we know, after the publication of Paolo Zacchia's work: see *Paolo Zacchia*.

called “fiscals” (*fiscali*) because they were appointed by the court. They were royal officers, and their main duty was to take care of the health of prisoners.⁵⁷ The Vicaria’s procedure required the judge, together with an *attuario* (a court’s chancellor), to go to the crime scene in order to perform “visum et repertum.”⁵⁸ Since the mid-16th century, after the reorganization of the judicial system by the Spanish Crown, this procedure had been extended to the provincial courts (*udienze*) and to all other courts of the Kingdom, although this was not “entirely true,” as Tommaso Briganti noted in the mid-18th century, referring in particular to the baronial courts.⁵⁹

The *udienze* had two appointed physicians, who were not royal officers but were more similar to the French *commis*, although they enjoyed a lower prestige than other regular employees, as well as being poorly paid.⁶⁰ Often, circumstances forced judges to turn to external professional healers, including barbers.⁶¹ The jurisprudence of the Kingdom provided for a precise hierarchy of experts: there should always be at least two of them, preferably employed by the court, and the presence of a single physician was allowed only if there was also a barber.⁶² In case of unavailability of court personnel, it was necessary to summon a physician or surgeon recognized by local authorities, preferably together with a barber “or someone with experience regarding injuries.”⁶³ Finally, when there was no personnel of this sort, it was possible to summon local healers. Concerning cases of divergences among experts, the doctrine tended to favor the opinion of the physician, whose professional and social prestige was greater than the surgeon or any other professional healer.⁶⁴

Treatises of judicial procedure, called “pratiche” often included brief suggestions on how to draw up medical reports, sometimes presenting models to imitate with all the information completed. However, regarding the medical

57 See Giustiniani, *Nuova Collezione*, vol. 8, 214, *De officiis ad regiae majestatis ejusque viceregis collationem spectantibus*.

58 De Luca, *Praxis judiciaria*, 252.

59 Briganti, *Pratica criminale*, 13.

60 See Musi, “Medicina e sapere,” 165–192.

61 Some procedural documents that survived the destruction during the 19th century of collections of criminal records in Neapolitan archives confirm this situation: see Archivio di Stato di Napoli (ASNa), *Processi antichi*, b. 2050, n. 54682 (1668); b. 1789, n. 50081 (1673); b. 2030, n. 54220 (1748); b. 1511, n. 42884 (1784); b. 1856, n. 50767 (1786).

62 See Briganti, *Pratica criminale*, 275, who mentioned Moscatello, *Practica criminalis*, 245 and ff.

63 Briganti, *Pratica criminale*, 275. An example of a medical report produced by two barbers is in ASNa, *Processi antichi*, b. 2020, n. 54682 (1668), procedural documents for the death of Vittoria Ciriello (Castel Volturno).

64 See Briganti, *Pratica criminale*, 275.

literature, the main reference works came from other Italian localities. The essays by Filippo Ingrassia, Giovanni Battista Codronchi, and Fortunato Fedele provided some indications to prepare young physicians for the most typical cases disputed in courts, and more generally for the problems of public health.⁶⁵ Actually, only Codronchi focused on the drafting of the report, providing an appendix of a dozen models based on his own experience. However, all these books were medical treatises, written by physicians for a public formed by students and colleagues. Moreover, they could not take into account the specific characteristics of the judicial system of the Kingdom of Naples. For the same reasons, even Paolo Zacchia's *Quaestiones medico-legales* was only partially useful. Although he mentioned, among many other authors, the works of Paré and Codronchi, Zacchia was not interested in the problem of writing medical reports.⁶⁶

Concerning the Neapolitan medical literature, it does not seem that the topic had aroused a specific interest until the reception of Zacchia's works. In the central decades of the 17th century, the spread of the new Telesian philosophy and then of the Galilean and Cartesian ideas animated the cultural life of the capital, setting off the famous dispute between the supporters of tradition and the innovators.⁶⁷ The academies were the driving force of this confrontation, which moved very quickly from the intellectual environment to the public arena with significant political implications.⁶⁸ Medicine, and surgery in particular, were influenced by the figure of Marco Aurelio Severino, and by members of the academy of the *Investiganti* (Searchers), supporters of the "new philosophy." This institution opposed the official organization of Neapolitan medicine, led by the Royal *Protomedico* Carlo Pignataro, who was a staunch supporter of the Galenic tradition and a skilled politician.⁶⁹

In this cultural context we find the first essay published in Naples that was interested, among other things, in writing medico-legal reports. In 1662, the *Novissima criminalis praxis* was published in Naples by Agnello (or Aniello) De Sarno, who had worked as a judge in many Apulian *udienze*. The treatise

65 See Ingrassia, *Methodus*, which circulated in a manuscript version until the 20th century; Codronchi, *De vitiis vocis*; Fedele, *De relationibus*.

66 Zacchia, *Quaestiones*.

67 On this particular period of the history of Neapolitan culture, see Mastellone, *Pensiero politico*, and Torrini, "L'Accademia degli Investiganti."

68 See Galasso, *Napoli spagnola*, vol. II, 391–393.

69 The Protomedico was the highest office to which a physician could attend in the Kingdom. His main function was to examine and grant licenses to all non-graduate healers, but he had also a relevant political influence on medical issues: see Gentilcore, *Healers and Healing*, 29–55. About the *Investiganti*, see Torrini, "L'Accademia degli Investiganti."

had a good circulation, but the history of the first edition is unclear.⁷⁰ In 1672, the third edition was issued, including a first part, previously unpublished, about civil practice, and a second part on criminal practice, drawn from the previous edition. Both were written in two languages: procedural aspects were described in the vernacular but commented in Latin, including all references to doctrine. Similarly, De Sarno provided some examples of formulas for each examined case using a double linguistic register: in Latin when the procedure required it, for instance in acts of prosecution; for other circumstances, he employed the vernacular, as in the medical reports. The purpose declared by the author was to be useful to students as well as lawyers, physicians, and all those who were involved to some extent in the matter.⁷¹

In the first pages of the part dedicated to criminal practice, De Sarno provided some advice to medical personnel on how to write official reports. Compared to other treatises on the same subject, he often referred to Neapolitan legislation, mentioning classical *auctoritates* in comments. Although it was not a systematic treatment of the subject, there is tangible sign of a shift towards positive law, as was already the case in French doctrine. The third edition of the *Novissima criminalis praxis* has a short treatise in appendix entitled *Il medico fiscale*, written by Orazio Greco, physician of the Vicaria.

In the dedication to De Sarno, Greco expressed his admiration for his medical knowledge.⁷² Beyond the usual courtesy formulas, the Neapolitan physician asserted the fundamental role of medical expertise in the criminal investigation. In fact, he explained the essay's title by stating that the *medico fiscale* had the same authority as any other employee of the court in discovering the truth:

[Because] the lack of intelligence of some magistrates, associated with ignorant rigidity, often bends the physician, the surgeon, the barber, or the midwife to conform their declarations to his will, or that of the clerk, rather than to the truth.⁷³

70 De Sarno, *Novissima criminalis praxis*. Information concerning the first edition, today untraceable, is in Giustiniani, *Memorie istoriche*, vol. III, 155.

71 De Sarno, *Novissima civilis*, 1–2.

72 Greco, *Il medico fiscale*, 3. About the possible relationship between the two authors, see Spagnesi, "Agnello de Sarno," 286–315.

73 "Che alle volte la poco intelligenza in questi casi di qualche Ministro associata con ignorante rigidità, fa spesse volte tralignare il Medico, Chirurgo, Barbiero, o Mammana, a condescendere in depositioni più conformi al suo volere, o genio del Scrivano, che alla verità." *Ibid.*, 3.

This is an important statement because it reveals a strong subordination to the magistrate, not differently from that attested to in Gendry's essay twenty years earlier. However, Greco claimed the objectivity of medical knowledge, though not on the basis of a dogmatic vision. In fact, he avoided the opposition between a medical truth and a juridical truth. Although he was a convinced supporter of the Aristotelico-Galenic tradition and, more critically, of Zacchia's doctrine, Greco acted from his own experience. In this sense, the author went beyond the texts mentioned hitherto, because he not only offered completed medical reports for each examined case, but he also focused his attention on doubtful cases, for which it is not always possible to produce a reliable diagnosis. For this reason, the essay begins with the most complex situations, to which Greco dedicates more pages, and goes on to address the simplest ones.

About wounds, for instance, which in Devaux's essay occupy half of the book, in Greco this topic is only mentioned in the final chapter. After all, the examination of wounds was the area where developments in anatomical knowledge had provided the greatest contribution. The first subject addressed by Greco is poisoning, which occurred "daily" in Naples, while in French doctrine, as we have seen, the importance accorded to this topic was much lower.⁷⁴ In fact, this was the most difficult situation for investigators, and the distinction between accident, murder and suicide could be impossible. After a brief illustration of qualities and types of poison, Greco analyzes which kinds of internal injuries can produce poison and if the human body itself can generate it, as Zacchia claimed. About the latter question, the Neapolitan physician responds negatively, believing rather that humoral imbalance may produce "not a proper poison [...] but similar in the effects to external venom."⁷⁵ This is in line with what Devaux would say thirty years later. As a confirmation of his assertion, Greco reports the result of his own experience:

In many examinations that I made in the examination of poisoned men, I experienced that having dipped a piece of bread in the matter vomited by those who had consumed poison and fed it to a chicken, it brought death on it. But in those in whom the cause of the malady was intrinsic, even when one gave the same dosage to the chicken, it did not die.⁷⁶

74 Ibid., 5.

75 "Un veneno improprio, et imperfetto, in quanto al nome, ma simile in quanto a gl'effetti, al veneno esteriore." Ibid., 8.

76 "In molte osservazioni da me fatte nella recognizione d'huomini venenati, ho sperimentato, che bagnatosi un pezzo di pane nella materia vomitata da quei, che havean preso il veneno, e cibato un pollo, ha recato a quello la morte, ma in questi ne' quali il genito

Unlike Devaux, Greco approved of the traditional technique to verify the ingestion of poison. For the Neapolitan physician, a good understanding of the various symptoms of the many existing poisons would help the fiscal physician in investigating the causes of death, by distinguishing the internal or external origin of the damage. However, despite the presence of a well-prepared expert, Greco admits the possibility of uncertainty, hence he provides distinct models of medical reports according to the ways in which substances produce their effects, including a formula to be used in doubtful cases. The illustration of this last formula was followed by an interesting polemical assessment:

This manner of issuing certificates that express doubt is by no means admitted in our Vicaria Tribunal, which wants the trial to end with an affirmative or a negative judgment; and as a matter of fact, I struggled no little to write certificates conforming to this [demand] in some cases of poisoning and sodomy, when the signs did not satisfy me enough, and though with great effort, they were finally accepted, thanks to the intelligence and the wisdom of magistrates in whom knowledge and conscience are of equal height, such as president Gaeta, councilor Ottavio de Palma, Don Francesco Moles, and others, who in these cases have always given, and still give, the physicians broad discretion to judge as they feel is right, without many inappropriate exaggerations, as has often happened with other people, whose names I have omitted out of due constraint, who always want affirmative certificates based on the most feeble clue, as if the physician were an eyewitness in these crimes.⁷⁷

The precise reference to some judges of the Vicaria, who had become important figures in Neapolitan public life, was probably aimed at obtaining favors

[sic] è causa del male, ancorché si sia data l'istessa dose al pollo, non per questo se n'è morto." Ibid., 9.

77 "Questo modo di far fede così dubie, non è penitùs ammesso nel nostro Tribunale di Vicaria, il quale vuole totalmente la causa decisa, ò con giudizio affirmativo, ò negativo, e per dirla in vero fatigai non poco in alcuni casi di veneno, e sodomia, quando però i segni a bastanza non mi soddisfacevano, di fare le fedie nella soprascritta conformità, benché con durissima fatica alla fine si siano ammesse, mercé l'intelligenza, e dottrina de Ministri, ne' quali la scienza e coscienza, concorrono al pari, come il Sig. Presidente Gaeta, il Sig. Consigliero Ottavio de Palma, Sig. D. Francesco Moles, et altri, che in questi casi sempre han dato, e danno la plenaria liberta a' Medici di giudicare a loro sentimento, senza tante importune esagerationi, che si fanno spesse volte da altri, quali per la dovuta modestia tralascio nominare, che in ogni legierissimo inditio in questa materia vogliono sempre fede affirmative, come se il Medico in questi delitti fusse testimonio di veduta." Ibid., 15.

by declaring his political affiliation. But Greco's affirmations show a glimpse of the vibrant Neapolitan intellectual environment of the second half of the 17th century. In this context, Leonardo di Capua – one of the most famous Severino's students – produced his fundamental essay on the uncertainties of medicine, which laid the foundations for an experimental and non-dogmatic approach to medical science. Personalities like Greco are indicative of the difficulty of categorizing the world of Neapolitan academies in the second half of the century. In fact, he was a former member of the conservative academy of *Dissenzianti* (Dissenters), which was the organization created by the *Protomedico* Pignataro to support Galenic tradition in opposition to the *Investiganti*.⁷⁸ Nevertheless, Greco's assessments seem to be also under the influence of "the new philosophy." Probably he adhered to the new conciliatory policy promoted by the viceroy Pedro Antonio de Aragón, who disbanded the two rival academies but, at the same time, removed Pignataro from the office of *Protomedico*, replacing him with Diego Ragusa, more favorable to the modern doctrine, from 1666 to 1673.⁷⁹

The next two sections of the *Medico fiscale* maintain this specific attention to uncertainty and doubtful cases. The first one is dedicated to sexual assault on women and children, and the second one to an in-depth investigation of the torture issue, including the health condition of people subjected to harsh imprisonment or sent to galleys. The problem of judicial punishment was another critical point of divergence between the Ancients and the Moderns. Greco avoided any polemics, merely illustrating, with the help of some printed figures, the torture techniques adopted by the Vicaria and the cases in which the court's physician could certify the impossibility of using them on the accused.⁸⁰

The essay ends with a section devoted to a series of specific events. Many of these relate to the diagnosis of pregnancy and abortion, especially when the latter occurs after the death of the mother. In a case of homicide, the judge could also accuse the murderer of infanticide, if the state of maturation of the unborn had been judged sufficient. Therefore, the fiscal physician had to observe the fetus in order to assess whether the parts of the body were

78 In the first edition of the *Il medico fiscale*, Greco is introduced as physician of the Royal Court (of the Vicaria) and "*olim* [former] Principe dell'Accademia dei discordanti di Medicina."

79 A possible clue of Greco's compromise attitude is the introduction to the reader of the *Il medico fiscale*, in which Giacomo Antonio Mendozzino, a Greco's student, informs us of another essay in preparation by his mentor with a significant title (*Veteris medicinae quaerimonia in vescicantium abusu*) and dedicated to Diego Ragusa: Greco, *Il medico fiscale*, 4. Probably this essay has never been published.

80 See *Ibid.*, 23–57.

“completely outlined and organized,” this usually occurs “in thirty days” in males and forty in females, and “after this organization, the soul is infused.” In the period preceding the fetus formation, however, one should speak of “an embryo, that is a clot of seed and the blood together.”⁸¹ From a doctrinal point of view, the principal references were the solid classical *auctoritates* (Aristotle, Galen, and Hippocrates). Concerning the way in which the report must be drawn up, Greco mentions Ambroise Paré’s *Des rapports*, taking from the Latin edition of his *Œuvres* several excerpts illustrated by the French surgeon on the same subject.⁸²

The editorial success of the *Medico fiscale* was remarkable.⁸³ Treatises of criminal practice published during the following decades regularly quoted Orazio Greco’s essay, which became the main point of reference in Neapolitan judicial medicine. Although the authority of the judge in the evaluation of the trust to be attributed to the medical report was never disputed, legal literature was not insensitive to the methodological and scientific problems raised by Greco; consequently, the problem of doubtful cases becomes an integral part of successive judicial practices, although regarding only to cases of poisoning and rape.

In 1685, the priest and jurisconsult Carlo Antonio De Luca published a *Praxis judiciaria*. In the title the author showed that he had included in his work all the most recent works on judicial matters, the last of which was “Horatii Greci Medici Fiscalis penès praxim Sarni.”⁸⁴ According to the tradition, the *Praxis* is divided in two parts, both written in Latin, however, the criminal part contains wide quotations in vernacular taken from De Sarno but above all from the *Medico fiscale*. Initial articles discuss issues about jurisdiction and the beginning of the enquiry, with a specific focus on the meaning of the expression *visum et repertum*. Afterwards, the author examines different cases starting with the most difficult one: poisoning. Regarding the doubts about the external or the internal origin of the poison, De Luca quotes the *Medico fiscale* remembering that doubtful reports “in ancient times, [were] not accepted

81 “La recognizione dunque che spetta farsi dal Medico Fiscale in questo delitto, è d’osservare il feto, quale giudicherà animato, se le parti del corpo sono intieramente delineate, et organizzate, che sogliono à maschi secondo i Medici in trenta giorni, e nelle femine ne’ 40 delineare, doppo la quale organizzazione, se gl’infonde l’anima [...] avanti questo tempo dicesi, embrione, cioè coagulo del seme, e del sangue insieme unito.” *Ibid.*, 59.

82 See Paré, *Œuvres*, 771.

83 De Sarno’s treatise on criminal practice had almost four editions with Greco’s essay in appendix. Even the *Journal des savants* dedicated a review of the two works in 1707. The *Medico fiscale* was quoted also in foreign criminal treatises on criminal practice, such as the *Istruzioni teorico-prattiche criminali* by the Roman jurist Filippo Mirogli.

84 De Luca, *Praxis judiciaria*.

into the Vicaria, but now physicians are free to judge with their sentiment.”⁸⁵ However, the author does not consider this hesitation as a good reason to not open a judgement for poisoning, at most the judge will have to determine if the poison has come from an external source, in which case it would be murder or suicide. Rape is different, because in that case, according to De Luca, doubtful cases are caused by the negligence of the midwives, who often performed the role of expert without having adequate skills, but also by the presumed victims themselves, because “for venereal stimuli or for other unlawful causes that cannot be mentioned, with baths, lavenders, and similar actions, they cause the relapse, dilatation and distortion of those parts.”⁸⁶ However, the judge could not issue the sentence without a certain opinion from the experts, and De Luca, in fact, circumvented the problem arguing that a careful examination of the signs would certainly provide a clear diagnosis.

As we can see, De Luca tried to reconcile Greco’s remarks with judicial practice. But the problem of inexperience or of the great difficulty in defining the *corpus delicti* did not concern only medico-legal experts but also court employees, as Greco himself pointed out. This aspect emerges very clearly in another very interesting essay published by another priest, Ottavio Liguoro. We do not have much information on this character who was the author of numerous legal and antiquarian essays, but he was interested in medicine and economics as well. In 1712, Liguoro published a *Guida informativa criminale* in Naples, followed by a *Guida per lo stile e pratica civile* (Venice 1713).⁸⁷

Liguoro’s Guide was different from usual judicial practices published in the Kingdom of Naples and elsewhere in Italy. Entirely written in the vernacular, it seems a collection of useful advice for evaluating criminal cases and drafting the relative report, of which the author provided an example for each topic dealt with. Except for some medical authorities, no jurist was mentioned, probably to not increase the size of the essay. However, the formulas proposed by Liguoro resumed, sometimes literally, those published by the previously examined Neapolitan authors.

Therefore, Liguoro’s essay was a manual intended for men of law, and more generally to “every criminal tribunalist” (*tribunalista criminale*). At the

85 Ibid., 259.

86 “Che ò per stimoli venerei, ò per altre cause non lecite ad esprimersi, con bagni, lavande e simili, son causa della propria rilassatione, dilatatione, e disrottioni [sic] di quelle parti.” Ibid., 269–270. The same words had been used by Greco, *Il medico fiscale*, 26.

87 After the death of Liguoro, which took place in 1720, the two works were reprinted in Venice (1725) – I will quote from these editions – then only the civil practice was published again in Venice (1749) and in Naples (1756).

beginning of the book he addressed a warning to “ministri et scrivani” (magistrates and clerks) encouraging them to be honest and scrupulous. Like his predecessors, the author devoted a consistent part of the essay to poisoning and rape. Regarding the first, Liguoro recalled how “it is very difficult to find the true signs so that one can easily have the experts condemn the innocent or free the guilty.”⁸⁸ Nevertheless, Liguoro, like others, accepted only two possible responses from the expert, excluding the possibility to formulate a dubious advice. Similarly, concerning rape, he trusted modern anatomical knowledge, which had surpassed those “of the ancients.”⁸⁹

In Liguoro’s work, despite his professed confidence in the progress of medicine, the role of the medico-legal expert remains subordinate to that of the judge and his collaborators. This, however, did not prevent him from insisting on the widespread “ignorance” of the judges, who should be provided with “knowledge and conscience” (*scienza e coscienza*) because “rarely a doctor lives well, and rarely a judge dies well.”⁹⁰ Liguoro’s moralizing purposes coincided with the criticisms of how to administer justice in the Kingdom expressed by various exponents of the Neapolitan Enlightenment culture of the first half of the 18th century.⁹¹ Among them there was also the jurist Tommaso Briganti, author of one of the best-known Neapolitan criminal practice treatise.

Briganti devoted many pages to judicial expertise, especially medical expertise, examining also the accusation of incompetence.⁹² Briganti urged physicians and surgeons to be cautious about those cases, such as poisoning, in which there may be many doubts in establishing the exact cause of death.⁹³ Even with regard to the thorny question of assessing the severity of wounds, which was very important in French doctrine, as we have seen, Briganti prefers to mention 16th-century authors, who believed that in cases of a fatal wound “the examination by experts, surgeons, and physicians” was insufficient without the intervention of “other non-expert witnesses, who can corroborate the experts’ depositions.” We must remember that Briganti’s primary concern was the baronial courts, in which procedures were not always observed in a proper manner, including the selection of experts. Therefore, this was not a sign of

88 “E nel veneno il delitto in genere molto difficilissimo nel ritrovarsi i veri segni, che perciò volentieri si può dagl’esperti, o far condannare l’innocente, o liberare il Reo.” Liguoro, *Guida per lo stile*, 6.

89 *Ibid.*, 14.

90 “Che rare volte un medico ben vive, e rare volte un giudice ben muore.” *Ibid.*, 1–2.

91 Ajello, *Il problema della riforma*, 238 and 255. About scientific culture in this period, see Ferrone, *The intellectual Roots*.

92 Briganti, *Pratica criminale*, 153–154.

93 *Ibid.*

mistrust towards professional healers, but rather a form of guarantee for the accused, as the author points out: “the reason [...] is evident, as those who inflict fatal wounds receive extreme punishment, the greater the penalty is, the clearer and the more convincing the proofs must be.”⁹⁴ In fact, concerning poisoning and rape cases, Briganti encouraged judges to admit the three types of certification proposed by Orazio Greco (affirmative, negative, doubtful), reminding the experts to “not testify as certain what, according to the rules of their profession, was so doubtful, uncertain, and ambiguous.”⁹⁵ The author suggested to the judges to evaluate themselves the experts work, asking for their replacement with more experienced practitioners if they refused to testify about the uncertainty of the signs.

Despite Briganti’s opinion about doubtful cases, there is no element to suggest an “alliance” between the doctor and the judge as in France after the creation of the offices of Royal Physician and Royal Surgeon. In this way the medico-legal expert become another actor in the confused French judicial universe, not by chance, in his essay, Devaux reported all the founding acts of the new body. This did not happen in the Kingdom of Naples, where no physician wrote about medico-legal expertise after the publication of the *Medico fiscale*, which continued to be quoted by jurists until the end of the Old Regime.⁹⁶ In the Kingdom, medical professions remained “a heterogeneous group not united by a real group consciousness and, above all, external to the exercise of politico-administrative power.”⁹⁷ Therefore, the status of the medico-legal expert and his involvement in judicial procedures remained largely unaltered.

10.5 Conclusions

The two case studies highlight the role played by politico-institutional factors in the process of building forensic medicine, over the period between the emerging importance of medical expertise in judicial procedure, during

94 “Ed essendo la ferita mortale, non basta l’esame de’ periti, de’ chirurgi, e de’ medici; ma si ricerca congiuntamente l’esame di altri testimoni non periti, che corroborino le deposizioni de’ periti [...]. La ragione [...] è evidente, perché infliggendosi alle ferite mortali pena estrema, quanto maggiore è la pena, tanto più chiare, e convincenti esser debbono le prove.” *Ibid.*, 275.

95 *Ibid.*, 154–155.

96 In the most recent reviews of the 18th century Neapolitan medical bibliography the only text dedicated to medico-legal expertise is the *Scrittura medico-legale* by Michele Sarcone published in 1787: Mazzola, “Contributo.”

97 Musi, “Medicina e sapere,” 171.

the 16th century, and the Enlightenment reflection regarding public medicine. From a scientific point of view, there is no doubt that the advance of dissection practices in the 16th century and the work of Paolo Zacchia both contributed to strengthening the authority of the expert within judicial procedure. However, authors showed a fundamentally conservative attitude in both France and Naples, despite the many developments in general medical theory. In fact, they were in close contact with the world of justice courts, in which the search for the absolute truth constituted the guiding principle of the criminal trial, supported by methods of inquisitorial procedure.⁹⁸ This procedure enabled the expert to take a fundamental auxiliary position in the courts' activities, as he brought "privileged" testimony concerning facts on which the investigation had been opened. Nevertheless, the position of the expert was subordinate to that of the magistrate, and Orazio Greco's considerations highlight difficulties in collaboration that could also be found elsewhere. The "alliance" between the expert and the judge was set by De Sarno and by Greco on mutual understanding of the methodological problems, while most of the jurists insisted on the prominence of the magistrate and his needs: the judge was free to select experts and even evaluate the authoritativeness of the evidence provided by them, because he is *peritus peritorum*.

In France, the birth of a politico-professional body of medico-legal experts allowed the importance of the discipline to grow, by obligating courts to interact with members of this body. This was possible in the context of a monarchical project aimed at regulating professional healers and subtracting from local political bodies the monopoly on public medicine, in order to put it under the control of the central government. During the 18th century, the continuation of this process allowed the discipline to acquire its own autonomy in a context of increasing cooperation with both judicial and police authorities.⁹⁹ In the Kingdom of Naples a similar reform was never promoted, and the medical personnel involved in the judicial expertise remained heterogeneous and provided of a very disparate formation (physicians, surgeons, barbers, midwives, bone-setters, grocers and apothecaries, etc.). As a result, the judge was also called to perform a guarantee function, as he often confronted poorly trained experts, especially in provincial courts. This constituted a strong limit to an effective collaboration between the two figures. In the capital, obviously, the court of the Vicaria employs very experienced medical personnel, and it is precisely in this context that the problem arose of how to certify doubtful cases; a

98 See Prodi, *Una storia della giustizia*.

99 See Lunel, *La maison médicale*, 370–388; and Gelfand, *Professionalizing*, 83–130. About further development of legal medicine in France, see Chauvaud, *Les experts du crime*.

problem that does not seem to interest the French authors. However, despite his fortune, Orazio Greco's contribution was isolated. The Neapolitan medicine of the 18th century did not find a place of professional affirmation in the courts of justice, and the absence of an institutionalized body prevented the medico-legal discipline from consolidating itself in the Neapolitan scientific and socio-professional landscapes.¹⁰⁰ Only with the penetration of revolutionary ideas and the transformation of the judicial system during the Napoleonic era, the new French *médecine légale*, became a relevant topic in Neapolitan medical debate.¹⁰¹

100 During the second half of the 18th century Neapolitan medical debate was particularly lively and always attentive to other scientific contexts, especially France and Great Britain: see Borrelli, *Istituzioni scientifiche*, and Torrini, "Le traduzioni."

101 See Pastore, "Medicina, diritto."

Frightening Whirlpools: Drowning in France in the 18th Century

*Lucia De Frenza and Caterina Tisci**

11.1 Introduction

Up to the 18th century, physicians had a very vague idea of death by drowning. In the first half of the century it was generally described as asphyxia, i.e., cardio-circulatory arrest produced by respiratory impairment. The blockage of the blood flowing from lungs to the left side of the heart was assumed to be responsible for the cardiac arrest (the asphyxia was connected to a lack of pulse) and for the brain injuries (the asphyxia was strictly connected to apoplexy). The role of the lungs was indefinite: it only seemed to facilitate the blood supply. It was around 1780 that the specific function of lungs started to be recognized, but the precise definition of the gaseous exchange within the lungs was only acknowledged at the beginning of the 19th century, soon after Lavoisier's research.¹ A striking interest in the drowned began, however, several decades earlier in France, but it did not involve any pathophysiological aspects. The discussion focused on the diagnosis: on the one hand, it became part of the reflection on the medical definition of death, supported by the spread of a growing fear of uncertain states of life, and, on the other, it developed in the medico-legal field since the functions of justice required evidence of the cause of death. The two paths were intertwined, but they had different goals. The first attempted to identify the moment of death; the other its cause. The difference became visible when they pointed to different signs to certify the death.

The first path was generated in the context of a general change in the vision of death imposed by 18th century medicine. The concept of an instantaneous transition between life and death, which had been supported by the Christian tradition, began to waver, replaced by the idea that the vital functions did not all stop at the same time and that during transition states it was still possible to avoid death.² In the framework of French vitalism, Ménuret de Chambaud

* Lucia De Frenza is the author of the first, second and third sections; Caterina Tisci is the author of the fourth, fifth and sixth sections.

1 Larcan, Brullard, "Histoire des idées."

2 de Ceglia, "La morte e la paura," 305, Milanese, "La mort-instant," 174.

distinguished an “imperfect death” (*mort imparfaite*), still reversible, from an “absolute death” (*mort absolue*), whose only certain sign was putrefaction.³

By the recognition of these frontier states between life and death, it was possible to conceive of drowning as a drowsing condition, which for a certain time was not death. The moment of passage expanded well beyond the experimentally established threshold to justify the use of resuscitation practices. The rescue protocol became medicated, as it could be practiced without harm to the victim only if entrusted to an experienced health officer.⁴ Instructions for the rescue were transcribed in administrative regulations and discussed by physicians and surgeons. These suggested that asphyxiation by drowning could be treated as a “disease” (*maladie*).⁵ The officer appointed for rescue had a kit of physical and chemical remedies (clothes for rubbing, sternutators and emetics) and mechanical tools (oral bellows and clysters) to restore the act of breathing.⁶ As long as there was no evidence of death, resuscitation was a moral obligation, which was assigned to officers for public order duties in France.

The search for a semiotics of death, the condemnation of hasty burials and the spread of resuscitation practices were aspects of the medicalization of the definition of death, which took place in the second half of the 18th century. As historians have pointed out, the translation of the theoretical paradigm in the medical sciences of the period and the experimentation with resuscitation techniques were applied first to the treatment of the drowned and the suffocated.⁷

The second direction taken by the debate on drowning was medico-legal in character. It was necessary to establish whether there was a certain sign that would impute the death to drowning or homicide with concealment of the corpse. Beyond the understanding of the mechanism of death by drowning, the physician appointed for the report was concerned with distinguishing an accidental death from a wrongful one and validating his own deductions in court. Until that time, the diagnosis of drowning had appeared obvious,

3 Ménuet, “Mort,” 719. Cfr. Rey, *Naissance*, Vecchi, “La mort.”

4 Porret, *Sul luogo del delitto*, 204.

5 Goodwyn, *Connexion de la vie*, 7.

6 Jordanova, *Nature Displayed*, 154.

7 Demerson, “Muertes aparentes”; Eisenberg, *Life in the Balance*, Goulon, “Histoire de la reanimation”; Larcen, Brullard, “Histoire des idées”; Leveau, “Origines historiques”; Rabier, “Le ‘service public’ de la chirurgie”; Trépardoux, “Les secours aux noyés”; Trubuhovich, “History of Mouth-to-mouth Rescue Breathing”; Lee, “Cardiopulmonary Resuscitation”; Marinozzi, Bertazzoni and Gazzaniga, “Rescuing the Drowned.” This is just an essay on the existing bibliography on this subject.

because death was considered a direct consequence of submersion. The situation of finding the corpse implied the presumption of the cause of death. Moreover, since antiquity, foam in the mouth had been the sign that identifying sign of drowning.⁸ When, from the middle of the 13th century, it became regular practice to conduct judicial investigations into suspicious deaths, public officials had the duty to examine the bodies found and draw up a report.⁹ In cases of drowning, the regulations of some cities provided for a simplification of the procedures due to the obviousness of the death and the signs to diagnose it. In some situations, there was not even a requirement to lodge a complaint with the court.

The rationalization of the mechanism for crime detection and assignment of punishment, which was initiated in France at the beginning of the 18th century, amended the administrative and judicial regulations and also necessitated greater attention in the elaboration of judicial reports. As Lecuir pointed out, the transformation of the status of French medico-legal expertise lies in the famous cases of the second half of the 18th century.¹⁰ Some of these trials dealt with accusations of murders and simulated drownings. During those debates, many of the features of the sworn physician's activities were highlighted in light of the new organization of the French justice system: the relationship between magistrates and experts, the clash between physicians and surgeons, the value of medico-legal evidence and the ideological significance of the reform of justice. Significant research has already been conducted on these topics. For example, Porret emphasized the transformation that led the corpse to the center of the judicial debate, as a concrete element (*corpus delicti*) containing the clues necessary to discover the causes of a death. These facts emerged from the autopsy, the only act that qualified the crime and limited the arbitrariness of the judge in the award of punishment.¹¹ In the trials for violent death, as Chauvaud wrote, the expert often decided the outcome of the debate. "Crime medicine" (*médecine du crime*) was the first legal expertise to gain relevance in trials as early as the 18th century, while other evaluations by experts were recognized as judicial proofs only in the following century.¹²

With these reflections in mind, this chapter examines the value ascribed to the proof of death by drowning in the French judicial procedures in the second half of the 18th century. We show how the experts managed between a

8 Cordier, "De la noyade," 23–30.

9 Pouchelle, "La prise en charge de la mort," 265–67; Ortalli, "La perizia medica a Bologna," 223.

10 Lecuir, "La médicalisation de la société française," 232.

11 Porret, "Crime et châtements," 45.

12 Chauvaud, Dumoulin, *Experts et expertise*, 9.

hesitant practice for the limits of their own pathophysiological knowledge and the presumption of possessing a real expertise to determine the truth. Finally, we present how, in the most clamorous cases, discussions served to strengthen the new status of physicians and surgeons who held the office of royal commissioners of judicial reports. The proof, which gave validity to their reports, required not only the external examination of the corpse, but an overall anatomical evaluation. Therefore, the surgeons engaged in difficult battles to obtain a foreground place as officers authorized to make autopsies and witness in court.

The historical research on the trials involving alleged drownings has emphasized, above all, ideological issues. Moreover, there has not yet been a specific study on the medical aspects of the evaluation carried out in order to ascertain the death.

In the second half of the 18th century, the medico-legal experts claimed that one sign only (water in the lungs) needed to be present to make a certain diagnosis of drowning. In defending their positions, they used a register, which was no longer purely scientific, but had acquired many of the features of legal rhetoric. In addition, they asserted, as a guarantee of the correctness of their views, the prestige of the founder of French legal medicine, Antoine Louis, the first to have taught this discipline in a higher education course.¹³ In this way, the medico-legal experts succeeded in imposing themselves as necessary figures in the administration of justice, claiming the authority to identify the crime. They created a new and prestigious space that brought them to the forefront of society. A new class of practitioners was born, officially recognized in the 19th century.

11.2 Drowning: a *sui generis* Category for Legal Medicine

In France, the development of criminal procedures stemmed from Louis XIV's reform. The *Grande ordonnance criminelle* (Criminal Ordinance) of 1670 had the effect of overturning the existing inquisitorial system in favor of adversarial one based on the principle of an objective and rational legality.¹⁴ In the new organization of justice, sworn experts were asked to collaborate with the judges before the trial debate began. These experts, as possessors of specific knowledge (midwives, blacksmiths, agronomists, etc.), could provide the investigating judge with concrete elements for evaluating the crime and its

13 Binet, *Histoire*, 61.

14 Boulanger, "Justice et absolutism."

circumstances. In the case of presumed murder or bodily injury, medico-legal report was required. Louis XIV's edict of February 1692 ruled that there must be a royal physician ordinary and a sworn surgeon in every city in France to draw up the reports.¹⁵

During the 18th century, the physician's collaboration with the magistrate of justice was defined by precise rules. The objective examination of the violated body, the "material residue of the crime" (*résidu matériel du crime*), became an essential element of the judgment, and, for this reason, it constituted a restriction, which oriented the expression of the sentence.¹⁶ Jean Lafosse, author of the entry *Médecine légale* in the 1777 *Supplément* of the *Encyclopédie*, stressed that the introduction of expertise report as evidence of the crime produced a rationalistic and scientific revolution in the criminal procedures:

In shortages of positive evidence which emerge to the magistrate, one consults the doctors and the surgeons to establish by scientific evidence, the existence of a fact which one could only know by this manner. Their decision so becomes the base of judgement and must guarantee certainty and justice.¹⁷

The medico-legal expert played not only the role of witness, but also that of the practitioner able to make a judgment on the facts.¹⁸ His report was not the simple description of the examined body, the location, shape and depth of the wounds, but it reported an assessment of the clues, in some way "the response of art" (*le jugement de l'art*).¹⁹ The report was a "justifying work" (*pièce justificative*)²⁰ and it had to be drafted in an irreproachable manner, both from the point of view of style and language, as well as argumentative logic.²¹ Based on the concrete signs identified on the body, the medico-legal report defined the nature of the fact (murder, suicide, accident) and its qualification (premeditated or recidivated) indicating a measure of the crime.²²

15 Lunel, *La maison médicale*, 191; Rabier, "Defining a Profession," 91–92.

16 Porret, "La médecine légale," 5.

17 "Dans la disette des preuves positives qui font du ressort de la magistrature, on consulte les médecins & les chirurgiens pour établir par des preuves scientifiques, l'existence d'un fait qu'on ne sauroit connoître que par ce moyen." Lafosse, "Médecine légale," 877.

18 Lecuir, "La médicalisation de la société française," 242.

19 Petit-Radel, "Rapport," 256.

20 *Ibid.*, 254.

21 Rabier, "Écrire l'expertise."

22 Porret, "La médecine légale," 5.

When the material evidence was insufficient, however, as in the case of corpses that had disappeared or had been recovered in an advanced state of decomposition, the deductions became conjectural. The bodies found in water, for example, lent themselves to such interpretations. The clues became polymorphic elements, from which no objective judgment could arise. The degree of credibility of the clues was discussed with animosity. The value that the expertise report had assumed in the court procedure was mostly at risk: to acknowledge the possibility of error in some cases meant taking a step back from the positions reached.

According to the regulations, physicians and surgeons had to combine their skills to draft the medico-legal reports. However, it was not always a peaceful collaboration. Surgeons believed that this was a field specific to them, since most of the assessments concerned wounds, about which they had to determine the severity or their correlation with the death.²³ Surgeons in the mid-18th century had embarked on a path, favored by state institutions, to redefine their assignments, strengthening their presence in the places of power, and showing that they worked for the benefit of civil society. They tried to take on new roles in order to show their specializations, and among these, the practice of legal medicine was a coveted field. Physicians, on the other hand, held on closely to the sphere of doctrinal reflection and delayed giving a definition to legal medicine. The name of the discipline itself was a neologism, introduced as homologue of the Latin expression *medicina forensis* by Lafosse in his entry in the *Supplément* of the *Encyclopédie*.²⁴ The clash between physicians and surgeons grew much more in the mid-18th century. The confrontation on an uncertain legal issue, which was the determination of death by drowning, became one of the occasions exploited by surgeons for self-promotion.

The crux of the problem was to determine whether the person, found dead in the water, had been thrown in when already dead or had drowned in a tragic fatality. The experts were asked to determine whether there were the conditions for a crime. Since the judgment was based on this assessment, it was necessary to arrive at to draw a conclusion unambiguous and scientifically motivated.²⁵

23 Lafosse, "Médecine légale," 878.

24 The French preferred to adopt the denomination "legal medicine" (*médecine légale*) instead of "forensic medicine" in order to give a wider meaning to this branch of knowledge. It was applied to the field of criminal law, but also to the civil and canonic ones. More precisely, legal medicine was the science that made the medical knowledge available to the law.

25 Porret, "L'expertise des noyés," 130–134.

The diagnosis of the drowning had already been treated by Paré in 1575 and his indications were repeated by Nicolas De Blégny in 1684 and Jean Devaux in 1703.²⁶ Paré wrote that external inspection alone was enough to detect the ante-mortem drowning. The signs were swelling of the belly due to the ingestion of water, bloody mucus from the nose, foam at the mouth, the flayed extremities of the fingers and the forehead.²⁷ In the mid-18th century, Antoine Louis observed that the signs indicated by Paré were not decisive. People hanged or suffocated in mephitic air had the same external manifestations: "If we judged the drowned by the knowledge that our predecessors have sent down to us, we would have inaccurate ideas about their state."²⁸ The only certainty, in Louis's view, came from checking the contents of the lungs and, therefore, required an autopsy. The same statement is found in the works of other surgeons, like Antoine Portal, Jacques-François De Villiers, Claude Champeaux and Jean Faissole.²⁹

The practices of medico-legal assessment of the drowned victims were also more complex, because these crossed with resuscitation procedures.

In 1740 by order of Louis XV the *Avis pour donner les secours à ceux que l'on croit noyés* (Notice in order to give help to those believed to be drowned) by Ferchault de Réaumur circulated through France. This work obliged to apply the medical rescue protocol for the drowned victims. Popular practices were banned, especially the one of hanging the drowned person upside down to expel the water swallowed, and more delicate methods were suggested that were able to reactivate circulation and breathing with superficial stimulation or through the insufflation of air. The involvement of medical officers in emergency rescue procedures was subsequently sanctioned in Philippe-Nicolas Pia's surveillance plan for the drowned and asphyxiated, which was distributed from Paris to all cities in the kingdom starting in 1772.³⁰ These regulations prescribed mandatory procedures for the treatment of the drowned, implemented long after finding them, even in the presence of very evanescent signs of non-definitive interruption of vital functions. Although Pia imposed an elementary medical training for the guard soldiers who had to intervene when a drowned person was found, it was the health officers, first of all the surgeons

26 Devaux, *L'art de faire les rapports*, 517, De Blégny, *Doctrine des rapports*, 220–221.

27 Paré, *Oeuvres*, 3: 660.

28 "Si l'on jugeoit des noyés par les connoissances que nos prédécesseurs nous ont transmises, nous aurions des idées bien défectueuses de leur état." Louis, *Lettres sur la certitude*, 266.

29 Portal, *Rapport fait*, De Villiers; *Méthode pour rappeler*; Champeaux, Faissole, *Expériences et observations*.

30 Pia, *Détail des succès*; Trépardoux, *Philippe-Nicolas Pia*; Id., *Les secours aux noyés*.

were the ones, who could implement all the procedures. The surgeons' intervention was necessary to practice bloodletting or tracheotomy, but also to determine whether it would be useful to persevere with the rescue.³¹ In summary, in the mid-18th century several health officers, authorized to perform different specific tasks, that were not always coordinated, were involved in dealing with the bodies of drowned.

An interesting episode allows us to understand this overlapping of interventions. In 1784, Edme-Pierre Paradis, a young surgeon major in Auxerre, wrote a letter to his old teacher Antoine Louis, telling him the case of a girl, who drowned in the Yonne River. The corpse had been found under the sand at the bottom of the river and had been taken to shore, left, as usual, with the feet in the water and the body out of the water. Even though Paradis wanted to carry out the rescue procedure, but the people who had gathered and the sailors prevented him from doing so, because the body could not be moved before the arrival of the justice officers. An hour later, he asked again if it could be moved, since he had observed some signs of life in the body. He had the *boîte-entrepôt* (containing instruments needed to rescue the drowned) with him. Immediately he insufflated tobacco smoke through the cadaver's anus with the fumigator machine. People saw that the body's complexion changed color, and believed that the young woman could be saved. The following day, when the death was confirmed, the crowd accused him of killing the girl.

Paradis copied and transmitted to Louis, so that he could intervene to help him, the two reports formulated by Charles Louis Léger, doctor regent at the Paris Faculty of Medicine and royal physician, and Claude Brissen, royal surgeon. They went to the place where the girl was, when Paradis had started the rescue procedure. They started examining the body externally, but they did not notice any blows or bruises. So they decided to postpone the internal examination, leaving the other surgeon to end the resuscitation practices. The following day they resumed the examination of the corpse, which, in the meantime, had been taken to the morgue of the city's royal palace. From the presence of the purple-red hypostatic spots on her back, the two experts deduced that the girl had still been alive when she was taken out of the water and that her death had been affected by the delay in the resuscitation procedures. The two officials had also opened the corpse and had found nothing in the lungs that could lead to the drowning. All the organs were healthy. On the hands and feet there were no signs of scratching, generated in the extreme attempt to cling to something so as to re-emerge from the water, "which makes us suspect that the girl fell into the river at a time of weakness, which, moreover, is the reason that

31 Rabier, "Le 'service public' de la chirurgie," 108.

her breathing stopped quickly.”³² In conclusion, the experts excluded that it was a crime, although they did not find signs of drowning on the body, claiming that the girl had died upon coming out of the water. The surgeon charged with executing the resuscitation was responsible for having failed in his duty.

Therefore, the report contained very specific indications to establish responsibility. Paradis was forced to defend himself before the royal prosecutor and the police lieutenant, blaming the sailors, who had prevented him from applying resuscitation therapies immediately after the body's finding. They were the ones to be punished.

11.3 Antoine Louis, Master Surgeon

The debate on the certainty of the judicial evidence in drowning deaths developed concurrently with the wider one on the diagnosis of death. Antoine Louis made a significant contribution to both debates.³³

Born in Metz in 1723, son and grandson of military surgeons and he himself a practitioner of the same profession, Louis settled in Paris at age twenty-one to acquire the title needed to practice surgery in the capital. He entered the Salpêtrière as a *gagnant-mâtrise*, which enabled him to do paid apprenticeships, unlike other students, and gave him the right to graduate without a public discussion of his thesis. From 1743, Louis XV separated the profession of barber from that of surgeon and put the training of the latter on the same level as that of physicians. Responding to the expectations of the government and the citizens, surgeons committed themselves to redefine their professional identity with the intention of setting it up as a liberal art and delimiting their practice to emergency management and treatment of external pathologies. It was a real revolution, which concerned several levels, from training to professional practice. It had a deep effect on the later orientation of modern medicine.³⁴ Louis supported that program, so much so that in 1748, when he was still a student, he wrote a *Refutation de l'écrit des médecins, intitulé La subordination des chirurgiens aux médecins* (Refutation of the writing of physicians, entitled The subordination of surgeons to physicians). In this work, he

32 “Ce qui nous fait soupçonné que cette fille est tombée dans la rivière dans un moments de faiblesse dont elle est d'autant moïn revenue que la respiration s'est trouvée arrêtée tout à coup.” Bibliothèque municipale de Metz, Manuscrits de Antoine Louis, Ms 1316, S15.

33 Sue, “Discours historique”; Huard, Imbault-Huard, “Antoine Louis”; Bolzinger, Kolopp, “Antoine Louis”; Porret, “Calas innocent.”

34 Gelfand, *Professionalizing modern Medicine*; Rabier, “La disparition du barbier”; Maillé-Virole, “La naissance.”

overturned the idea of the inferiority of surgery, supported by Jean Baptiste Thomas Martinenq, dean of the Faculty of Medicine: "Physicians cannot have the right to direct our art [...], they ignore the theory and practice."³⁵ He wrote the *Chirurgien* entry of the *Encyclopédie* with the same tone. He emphasized the skills of surgeons, who were not only operators, but knew medicine in all its parts. France had elevated surgery to the rank of true science.³⁶ In 1749, Louis was the first to discuss his thesis in Latin, proving that surgeons were equal to physicians even in their classical education. Martinenq, whom he had attacked the previous year, was in his graduation commission.

Later on, Louis found the opportunity to express his ambitions publicly, intervening in the debate about apparent death raised by Jean Jacques Bruhier. In 1742 Bruhier, physician and professor at the Paris Faculty of Medicine, translated from Latin, and commented on, the thesis advocated by his colleague Jacques-Bénigne Winslow, *An mortis incertae signa minus incerta a chirurgicis quam ab aliis experimentis?* (Are signs of dubious death less uncertain by chirurgic than by any other methods?), which appeared with the title *Dissertation sur l'incertitude des signes de la mort e l'abus des enterremens et embaumemens précipités* (Dissertation on the uncertainty of the signs of death and the danger of precipitate interments and dissections).³⁷ It contained numerous testimonies of people who had been buried alive, to show that apparent death was not an extraordinary fact, but it belonged to the norm of nature. The reduction of vital functions served to give the body the strength to fight disease. However, this state was dangerous and did not necessarily have a benign outcome. Bruhier expanded the range of diseases leading to a state of apparent death before the final death, fueling the fear that it was not possible to distinguish one from the other. Medicine could not interpret the signs of death, so the possibility of being buried alive could happen to anyone.³⁸

35 "Les médecins ne pourroient avoir un droit de direction sur notre art [...], ils en ignorant également la théorie & la pratique." Louis, *Refutation*, 19.

36 Louis, "Chirurgien," 356.

37 Winslow, *Dissertation sur l'incertitude*. This work begins with the translation of Winslow's thesis: *Si les experiences de chirurgie sont plus propres que toutes autres à découvrir des marques moins incertaines d'une mort douteuse*. Then follow the translation, an addition and an original dissertation: *Memoire sur la nécessité d'un règlement général au sujet des enterremens et embaumemens*. Three years later Bruhier published the replies to the objections made to him as the second edition of his *Mémoire sur la nécessité*. This book was also printed in 1746 with an *Addition*. In 1749 he published the second edition of the *Dissertation sur l'incertitude*.

38 Quinlan, "Apparent Death," 37; Vecchi, "Mort apparente," 151–152; Milanese, "Tra la vita e la morte," 619–622; Carol, "Une histoire médicale," 47–48; di Palo, "La morte nella fisiologia," 216–217.

Louis in the six *Lettres sur la certitude des signes de la mort, où l'on rassure les citoyens de la crainte d'être enterres vivans. Avec des observations & des expériences sur les noyés* (Letters on the certainty of the signs of death whereby citizens are reassured regarding the fear of being buried alive with observations and experiments on drowned persons) of 1752 sharply rejected Bruhier's arguments, defining them not rigorous but only useful only to enrich the list of *de miraculis mortuorum*.³⁹ The physician's opinion could not be disputed, even on a matter so difficult to deal with. Though the signs could be deceiving in some cases, there surely was, in his view, a clue indicative of death: the sag and limpness of the eyes.⁴⁰ This sign made it possible not to wait for putrefaction. However, Louis dampened his optimism when moving to the concrete experience.

The observations that he had carried out four years earlier on drowning provided examples of people who had come back to life, when the time spent underwater was such as to make death certain. He described these rescues, carried out between 1746 and 1748, in some autographed notes kept at the Metz Library.⁴¹ Rescue was started when the recovered bodies no longer seemed to give signs of life. Bloodletting performed on the jugular vein, which was done to reduce the obstruction of veins near the brain, was deemed useful. Even Réaumur in the *Notice* of 1740 had suggested calling a surgeon to practice bloodletting, as this was the most effective way to restore circulation. Réaumur added that, if all techniques were failing, the surgeon had to perform a tracheotomy, so that hot air would reach the lungs directly. Louis, on the other hand, focused solely on the restoration of the circulation and, then, he evaluated where it was more effective to practice the bloodletting, at the limbs or the head. Tracheotomy was useless and the air could be easily introduced through the mouth. The resuscitation protocol was not fully applied, because Louis had already a clear idea of the cause of death, which depended on water taking the place of air in the pulmonary alveoli, and on blood's circulation interruption.

39 Louis, *Lettres sur la certitude*, 34–37.

40 *Ibid.*, 156.

41 Bibliothèque municipale de Metz, Manuscrits de Antoine Louis, Ms 1316, S15. There are two items: the first is *Observation qui prouve l'impossibilité de tirer du sang au pied des noyés* (Observation proving the Impossibility of bleeding the Foot of Drowned), and the second *Observation qui confirme l'impossibilité de tirer du sang au pied des noyés et qui établit l'utilité de la saignée faite à la veine jugulaire* (Observations confirming the Impossibility of bleeding the Foot of the Drowned and determining the Usefulness of the jugular Vein bleed). These topics are also dealt with in Louis, *Lettres sur la certitude*, 287–289.

Louis discussed drowning at length in his work of 1752.⁴² He addressed the subject both from a physiological point of view and from a practical one, as related to the rescue techniques to be implemented. Once again, Louis juxtaposed the ineptness of physicians, who on this subject had formulated hypotheses on this subject in disagreement with the observations, with the ability of surgeons, able to combine their well-carried out experience with their knowledge of physiology. The senses were masters of truth, because reasoning alone could fail. To understand the dynamics of breathing Louis had experimented with drowned animals at the Saint-Côme École Pratique, where demonstrations for student surgeons were held. Reflecting on human physiology and observing the internal organs of drowned animals in colored liquids, he had understood that water always penetrated into the lungs of the drowned, and that its presence in the organs of breathing, ascertained with autopsy, was an unmistakable sign of the cause of death.⁴³ When it came to drowning, Louis pointed to a unique and incontrovertible sign to identify the type of death, as well as he had already done in general for the diagnosis of death. This sign was to be used in medico-legal assessment. Effectively, the mass of “ignorant detractors” (*ignorants contradicteurs*)⁴⁴ – as he defined them – blamed him exactly for the absolutization of this principle. Louis had raised to the level of a law a fact established on limited evidence, but “it is dangerous and even incautious to make general and exclusive rules that could end up costing the lives of many honest people.”⁴⁵

The evidence of drowning, being consistent with the presence of liquid in the lungs, was not, among other things, a novelty. Louis presented this as his own discovery,⁴⁶ but in 1719, the anatomist Alexis Littre had already presented this thesis to the members of the Royal Academy of Science.⁴⁷ Starting from

42 The six letters were followed by “Memoires sur la cause de la mort des noyés” (Memories about the Cause of Death of the Drowned Persons), “Avis pour donner du secours à ceux que l'on croit noyés” (Notice in Order to give Help to those Believed to be Drowned) by Réaumur, “Examen raisonné des différens secours qu'on a proposés ou mis en usage en faveur des Noyés” (Reasoned Examination of the Different Rescues proposed or put in Use for the Drowned), “An mortis incertae signa minus incerta a chirurgicis quam ab aliis experimentis?” (Are signs of dubious death less uncertain by chirurgic than by other methods?) by Wislow (with facing French translation).

43 Louis, *Lettres sur la certitude*, 236.

44 Champeaux, Faissolle, *Expériences et observations*, 74.

45 “Il est dangereux & même téméraire, de faire des règles générales & exclusives, qui pourraient par la fuite coûter la vie à bien d'honnêtes gens.” Duchemin, *Mémoire sur la cause*, 21.

46 *Ibid.*, 75.

47 Littre, “Sur les noyés.”

the observation of bodies found in water and animals drowned in the laboratory, Littre had hypothesized that these deaths had been caused by suffocation, i.e., an impediment to breathing, excluding the idea that the inhalation of water was in some way related to the interruption of the vital functions. A bit of water penetrated the airways during drowning, but it was not enough to cause death. For the medico-legal aspects, however, Littre had admitted that the presence of water in the lungs was “a sign that helps in recognizing whether bodies had been thrown into the water dead or alive,”⁴⁸ because water entered the lungs only in the first circumstance and not in the second. A few years later, Jean-Baptiste Sénac, a royal physician, claimed that the interruption of breathing was the cause of death of the drowned, but he denied that water could be inhaled because the lungs, already full, prevented the entry of other substances. Therefore, Sénac asserted that the absence of water in the lungs should not be considered proof of death prior to submersion: a little liquid could eventually penetrate when the body came to the surface and the air escaped from the raised epiglottis.⁴⁹

Therefore, Louis's certainty about the medico-legal proof of drowning did not derive from original hypotheses or even new observations. Experiments on drowned animals were also performed, in addition to Littre and Sénac, by the physician Antoine Petit in 1741 and were reported in the *Proceedings* of the Royal Academy of Science. These studies were used to establish the maximum survival time of animals and humans in water, which did not exceed two or three minutes.⁵⁰ However, once the experimental data were reported, Petit had transcribed the usual repertoire of facts, attesting resuscitations occurred far beyond the limit he had identified. No one escaped from the attraction of referring to these miracles, neither Petit nor Louis, nor Réaumur nor Bruhier. In fact, having admitted that the transition from life to death was not instantaneous, there was no hesitation in extending this range from a few minutes to several days. Bruhier and others had justified the continuity of life as being similar to the entrance into a lethargic state similar to that of many animals, such as insects and marmots.⁵¹ For Petit, however, the duration depended on the protraction of repeated submersions and emersions during the drowning process.

48 “Est-ce là un signe qui aide à reconnoître si des corps qu'on a retirés de l'eau y ont été jetés morts ou vivants.” *Ibid.*, 28.

49 Sénac, “Sur les noyés.”

50 Petit, “Sur les noyés.”

51 Winslow, *Dissertation sur l'incertitude*, 114.

Louis made a strong defense of the proof of drowning based on the presence of water in the lungs. The certainty of this proof confirmed the expertise of surgeons in the domain of legal medicine. Louis was a decided partisan of the Enlightenment cause and, then, he supported scientific truth against “confident and presumptuous unreason” (*confiante & présomptueuse déraison*).⁵² He emphasized the aversion to the blind opinions of the ancients and the courage to use autonomous thought supported by reason. Beyond his involvement with the ideological struggles, it must not be ignored, that those were the years in which Louis entered the philosophical debate for the first time, with the intention of starting a successful career. These clashes, which attracted great clamor in the press, guaranteed him a prominent place in the Parisian intellectual environment and in the narrow circle of practitioners of the surgical art. In 1754, he was appointed demonstrator of physiology and, the following year, demonstrator of physiology and hygiene at the Paris College of Surgery.

His contribution to solving some court cases increased his fame, especially because the public favored the widening of the discussion. The most famous case was the Calas case in 1761, which concerned a Calvinist merchant from Toulouse who was unjustly executed for the murder of his son who had committed suicide.⁵³ Voltaire, who had intervened to get the trial reviewed and to rehabilitate the memory of Calas, asked Louis for a consultation on the young man’s cause of death. Before giving his opinion, Louis acquired all the data, carried out independent research, conducted experiments on human corpses and living animals, listened to anyone who was informed of the facts to be sure he could draw to the right conclusions from the observation of the body. In 1763, he published his consultation, in which he pointed out the elements that distinguish violent death from accidental death in the case of suffocation, providing the elements to demonstrate the innocence of Calas.⁵⁴ Louis also used this approach on subsequent occasions.

In drowning cases his role was secondary, but he still managed to weigh on the outcome of the trial. Louis asserted his authority on medico-legal matters, intervening in judging the reliability of surgical reports, which already were before the courts. The way in which these events took place was so peculiar, that it is worth examining them in detail. The facts were reported in the most famous judicial chronicle of the time, the *Causes célèbres, curieuses et intéressantes de toutes les cours souveraines du Royaume, avec les jugemens qui les ont décidées* (Curious and interesting causes of all the sovereign courts

52 Champeaux and Faissolle, *Suite des mémoires intéressants*, 77–78.

53 Porret, “Calas innocent.”

54 Louis, *Mémoire sur une question anatomique*, 15–16.

of the Kingdom, with the judgments of those who have decided upon them), published in monthly dossiers in Paris between 1773 and 1789 by lawyers and, later, editors, Nicolas-Toussaint le Moyne Des Essarts and François Richer. This new literary genre, which combined the accuracy of judicial reconstruction with the seduction of recent scandals, highlighted the role played in the criminal procedure of pre-revolutionary France by the expertise report on allegedly murdered bodies.⁵⁵

11.4 The Sirven Affair

In 1761 Elisabeth, the second-born daughter of Pierre-Paul Sirven, a feudalist of Castro, was found dead in a well in the center of the public square.⁵⁶ The girl, first locked in a convent against the will of the family, then returned to her relatives with serious signs of mental confusion and rhapsodic states of delirium, had disappeared at night while her father was not at home. Pierre-Paul Sirven was a Protestant. Rumors had it that he had killed his daughter because she converted to Catholicism. The whole family, warned of the imminent arrest warrant, fled to Lausanne. Two years later, the trial ended with a conviction in absentia and hanging in effigy. A few months after the Calas scandal, some intellectuals, such as Voltaire first and foremost, who openly fought against fanaticism and intolerance, found in the case of Sirven, – “two scenes of the same drama” (*deux scènes d'un même drame*) – a new opportunity to cast doubt on the French archaic system of penal justice and relegate the damaging effects of prejudice.⁵⁷ Barrister Elie de Beaumont worked to persuade the King's Council to review the sentence on the procedural level.⁵⁸ Another young Toulouse lawyer, Firmin de Lacroix, insisted on being involved in that *battage* and also wrote a *pamphlet*, which someone falsely attributed to Voltaire.⁵⁹ Sirven returned to

55 Maza, *Private lives*.

56 Des Essarts, Richer, *Causes célèbres*, 8: 171–311, Champagnac, *Chronique du crime*, 3: 159–173, Galland, *L'affaire Sirven. Étude historique*, Jahan, “Le corps englouti,” 55–57.

57 Rabaud, *Sirven. Étude historique*, 8. Voltaire asked the support of influential lawyer friends and also sensitized the public. He wrote *Avis au public sur les parricides imputés aux Calas et aux Sirven* (Notice to the Public on the Parricides imputed to Calas and Sirven) and published the letter to Damilaville dating from 1765 on Calas case. Voltaire, *Due casi di parricidio*; Inchauspé, *L'intellectuel fourvoyé*; Bijaoui, *Voltaire avocat*; Davidson, *Voltaire in exile*, 100–114. Jean Calas was a Protestant living in Toulouse. In 1761, he was accused of murdering his son to prevent his conversion to the Church. He died tortured on the wheel. In 1765, Voltaire obtained that his memory was rehabilitated.

58 Beaumont, *Mémoire à consulter*; Moulin, *Les défenseurs des Calas et des Sirven*.

59 Lacroix, *Mémoire pour le sieur Pierre-Paul Sirven*.

France and turned himself in, in order to ask for the re-examination of the case. After a lengthy court trial, in 1771, the Toulouse tribunal recognized his innocence and rehabilitated the family.⁶⁰ The Sirven case was described as an “act of rage and southern fanaticism” (*acte de colère et de fanatisme méridional*)⁶¹ because it was fomented by hatred against Huguenots in a region where religious contrasts had become unsustainable in those years. This situation was put under the spotlight of civil society by a number of actors – *philosophes*, lawyers, academicians, physicians and surgeons – with different aims, with an ever-increasing level of media attention that did not stop for more than a decade.⁶²

Jean Lafosse cited the Sirven case in the *Médecine légale* entry of the *Supplément* of the *Encyclopédie* as “one of the saddest monuments that ignorance has ever produced” (*un des monumens les plus tristes que l'ignorance ait jamais produit*) because of the errors of the medico-legal experts and the consequences derived.⁶³ The body was examined by physician Jean de Galet-Duplessis and surgeon Pierre Husson, who had been appointed to the case. They were influenced by the *vox populi*, who at the beginning had insisted that the poor madwoman had been drowned, then had insinuated the suspicion that the father might have killed the girl to prevent her conversion to Catholicism. The experts delivered two reports: the first, drawn after the finding of the body, only mentioned the death; the second was imposed by the judge, who wanted to clarify the causes of death, and suggested the girl had been murdered. At this point an investigation was ordered, while the body inexplicably disappeared. The theft of corpse was not imputed to Sirven. It is likely that there was a thoughtless official who got rid of a bad-smelling body without having received specific orders, rather than the family being responsible for another crime, because in the early phase no family members had opposed the standard procedures. Only through the reference to the putrefactive miasmas the corpse gained its physical concreteness; for the rest, the body faded into the impersonal description of the medico-legal experts.

In the second expert's report it was written that, upon having undressed the corpse, an exterior observation was carried out, revealing the maceration of the skin and the swelling of the head, due to the fact that it had been in water for many days. Since the cold temperatures of the season had slowed the putrefactive processes, the features were not altered and the girl had been

60 Adams, *The Huguenots*, 224–225; Kley, *The French idea of Freedom*, 254–257.

61 Rabaud, *Sirven. Étude historique*, 8.

62 Garnot, “Voltaire et la justice,” 26–37.

63 Lafosse, “*Médecine légale*,” 881.

recognized. Upon cutting into the swollen part around her neck, lumpy blood and the beginning of corruption were found; upon cutting into the lower abdomen, neither blood nor water flowed out. Drowning had been excluded, without the chest having been opened, nor had the cause of the mobility of the neck been determined, which probably concealed a vertebral fracture. The report concluded that, since there were no signs of drowning, because there was no water in the belly, the girl had been strangled before ending up in the well. The supposition was not motivated, because there were no signs of the murderer on the body. Among other things, in the act of *resumption*, the physician stepped back from his opinion, only saying that "it was supposed, with reason" (*il soupçonne, avec raison*) that there had been violence before the girl fell into the well, but he did not confirm it.⁶⁴

In the hands of the judge, this report became condemning evidence against Sirven. On the other hand, the defense focused on its inconsistencies, contesting the omissions in the assessment of the cadaver, the misjudgments, and ignorance on the signs of drowning. Outside the court, doubts about the reliability of the report were reported as an accusation of bad faith on the part of the experts. Champagnac said that the second report was artifact, because only that report mentioned the broken neck, the absence of water in the abdomen, the girl's virginity, all indications that were used to discredit the hypothesis of suicide and ordinary murder, and confirm the parricide.⁶⁵ Rabaud, on the other hand, said the two experts reported false information at the request of the judge: "As there is no crime, they have invented it!" (*Le crime n'existant pas, ils l'inventent!*). The physician's behavior was more reprehensible, because during the second trial, he stated that he had been convinced by his colleague, who had died in the meantime, to declare what he would not have admitted on the basis of his knowledge: "He save science, but he condemn his honor" (*Il sauve sa science, mais il condamne son honneur*).⁶⁶ The idea he had saved was that water in the belly was not valid proof for diagnosing death by drowning.

In order to verify the reliability of the expert's reports, in 1769 the professors of the Faculty of Medicine of Montpellier and those of Surgery College of the same city were interviewed. They agreed that the examination of the body was superficial and the diagnosis of death was based on labile evidence. They supported another hypothesis: the cause of death was the trauma of the fall. These remarks clearly highlighted the omissions in the assessment made by

64 Aubert, "Mémoire sur la cause," 294.

65 Champagnac, *Chronique du crime*, 166.

66 Rabaud, Sirven. *Étude historique*, 59–62.

the two experts. Nevertheless, the collaboration between justice and medicine was compromised, when expert's reports became unreliable.

At this point, Antoine Louis was singled out. He was consulted by the Toulouse tribunal in order to indicate whether, in his opinion, the report of the experts could be a legal act, i.e., worth in the penal procedure, and whether it was necessary to take into account the retraction of the physician.⁶⁷ Louis's response on June 3, 1769 was set out in a dogmatic manner: the role of experts, able to provide a veritable "testimony of the eyes" (*témoignage des yeux*), was incontestable, while their ability to interpret the facts could possibly fail, due to either ignorance or a poor critical aptitude.⁶⁸ Since "It is certainly necessary that the existence and nature of the crime be established positively and accurately," it was not enough to stop with a suspicion, but it was necessary to find indisputable evidence.⁶⁹ For this reason, it was necessary to identify the expressive signs on the corpse and to interpret them properly. When the report was not rigorous, the experts failed in their duty as advisors to judges. For their negligence justice could err, condemning an innocent person or leaving a criminal unpunished.⁷⁰

This was exactly what had happened in the Sirven case, because what fomented the accusation was "nothing but the shameful report of the experts" (*rien autre que le honteux rapport des médecins*).⁷¹ He did not doubt the honesty of the experts, but the fact that they did not have sufficient medical knowledge to assess the clues found on the body. Galet had ruled out drowning on the basis of an unproved theory. The physician thought that

it is physically certain that it is not the water that suffocates the drowned, but the lack of breathing caused by the closure and the large contraction of the organs intended to receive the air necessary for life.⁷²

As confirmation, he reported the indications for recognizing drowning provided by Rodrigo de Castro in the 17th century;⁷³ but also authors in more recent times, such as Johann Conrad Becker, Georg Detharding, and Rowland Jackson, had argued that, when the epiglottis was closed, water could not enter

67 Louis's consultation was fully reported in Aubert, "Mémoire sur la cause," 436–453.

68 Aubert, "Mémoire sur la cause," 437.

69 "Il faut certainement que l'existence & la nature du délit soient constatées positivement & d'une manière précise." Ibid., 444–445.

70 Lecuir, "La médicalisation de la société française," 236–7.

71 Rabaud, *Sirven. Étude historique*, 68.

72 Lacroix, *Mémoire pour le sieur Pierre-Paul Sirven*, 135.

73 Roderici a Castro, *Medicus politicus*, 4: 259.

the airway and one died in the phase of inspiration.⁷⁴ Galet, however, forgot to examine the lungs. He had only opened the belly and checked for the absence of water. Nevertheless, this was neither a clue for, nor a cause of, drowning. The physician changed his version several times during the two trials until he declared that he saw the vertebral fracture and that all the lesions in the neck were compatible with the violent impact against the walls of the well. He also added that, in his view, the only sign for a diagnosis of a drowning death was the presence of foam in the mouth and in the respiratory tract.⁷⁵ It was easy for the defense to reject his statements, because he clearly contradicted himself.

However, leaving aside the logic of the trial, some elements appear clear: the first report was superficial, attesting drowning only because the corpse was found in water; the second report, imposed by the judge to clarify the cause of death, draw conclusions that were opposite to the first one. Nevertheless, it showed that the experts “made concrete” the body of the crime. Then, it became clear that the appeal process would stem from the refutation of the expert’s report.⁷⁶ The experts had taken the place of the judges, drawing conclusions on the nature of the violence found on the body, but they did so, as Louis had argued, without adequate medical knowledge. The experts were wrong, but this did not mean that legal medicine did not provide the tools to make an accurate judgment. The art was valid: it was necessary to apply it with appropriate knowledge and discernment.

11.5 The Lerooge Affair

Almost at the same time another court case broke out.⁷⁷ This was also the case of a young woman, Claudine Rouge, who was found dead on the banks of the Rhône near Lyons. The girl, left her house on the evening of June 25, 1767, and did not return. Five days later a corpse was recovered several miles away. The judicial authorities merely sent a medico-legal officer who examined the corpse without getting off his horse. Since the girl was not identified and no one wanted to bury her on consecrated ground without knowing her religious faith, in the evening some sailors were asked to bury her in the sand. After another five days, Claudine’s uncle had the body – recognized as that of the

74 Becker, *Paradoxum Medico-Legale*; Detharding, *Epistola de method*; Jackson, *A Practical Dissertation*.

75 Lacroix, *Mémoire pour le sieur Pierre-Paul Sirven*, 151.

76 *Ibid.*, 155.

77 Des Essarts, Richer, *Causes célèbres*, 70: 3–148; Champagnac, *Chronique du crime*, 3: 117–139.

young Rouge, thrown into the river after being kidnapped and killed – dug up and forced a priest to sign a death certificate, so that she could be buried in a consecrated ground. That certificate, along with rumors that circulated immediately, led to an investigation. A second exhumation was made to ascertain the identity of the corpse and the cause of death. Fifteen days after the death, the body was so deteriorated, that her father was not certain he could recognize Claudine from her features, but only from the nightclothes she was wearing. Investigations led to the arrest of six people and a case was opened against them, which immediately showed signs of irregularity, as the clues were vague, the witnesses unreliable and it became evident there was a clear will, for some futile reasons, to direct the trial toward the conviction of the defendants. The eyewitness testimony of a five-year-old child, the son of the main suspect, was obtained with deception and in exchange for some sweets. Eventually all of the suspected people were acquitted.

Apart from the procedural defects, about which Voltaire summoned his lawyer friend Elie de Beaumont to express his opinion, as in the Sirven affair, once more the medico-legal experts, who had determined that it had been a violent death, influenced the trial.⁷⁸ The defense lawyers cast doubt on the fundamental elements of the trial: first, that the corpse had been recognized (in other words that the body found was actually that of Claudine Rouge) and, then, that the experts could reasonably have determined the cause of death. Shortly after the court had pronounced acquittal, the two surgeons Claude Champeaux and Jean Faissole stepped forward for defending their professional integrity beyond the procedural motivations. They wrote a letter to Antoine Louis asking him to guarantee the evidence used to rule out the drowning, adding the account of experiments done on animals intentionally drowned.⁷⁹ The prosecution requested an appeal trial, which ended in 1772 with the confirmation of the first ruling. Voltaire railed against the idiocy of the second criminal process, which had the only effect to keep the innocents in prison for another two years. His idea was that Claudine Rouge had accidentally fallen into an unsupervised latrine and, found dead, had been thrown into the Rhône. The mistake was made by the surgeons called to examine the corpse, who, insisting upon their judgment, had exposed the defendants to public ignominy.⁸⁰

The surgical experts did not remain behind the scenes, but they had asked to be recognized as officers capable of giving a reliable judgment of the nature of the crime. In 1768, they published a work almost four hundred pages long

78 Nabarra, “Les rapports que nous font les hommes,” 129–144.

79 Champeaux and Faissole, *Expériences et observations*, 24–28.

80 Voltaire, *A M. *** Sur le procès criminel*, 124.

to support their positions. This book was part of a new literary genre, that of “surgical consultations,” (*consultations de chirurgie*), actual pamphlets written by experts to support their consults. There were also the “memories on consultations” (*mémoires à consulter*), public speeches of the lawyers in response to the reports of expertise. This legal literature revealed the intra-professional rivalry that the system of medico-legal consultation had generated in the French judicial system.⁸¹

Champeaux and Faissolle firmly upheld the legal value of the evidence provided by the experts. The peculiarity of the surgeon’s contribution to the investigation consisted in manipulating the body of the crime; in other words, examining the body (with his hands and not only with his eyes) and giving shape to the crime. They had direct contact with the corpse, so much so that through their report the material appearance of the dead person emerged (the effects of decay on Claudine, who was revealed to have been attractive in life, were described in minute detail, down to the detail of missing hairs on the pubis).⁸² The assessment of the signs of death was the condition for getting the body of the crime as witness in court.⁸³ The surgeons repeated that their assessment was free from conjecture, and based on well-known medical notions. The lawyers who challenged them alleged that their judgments were only hypotheses. There could be no understanding between them, because their languages were incommensurable: the medical one made recourse to the “spirit of geometry” of its art, the legal one was based on the “art of persuasion.”

Another irregularity of the Rouge trial was the assignment of the examination of the cadaver to two surgeons, while the criminal ordinance of the time required that a physician always be coupled with a surgeon, since, while the second inspected the body, the other explained the causes of death.⁸⁴ In reality, at the end of the 18th century, the differences between the role of these two experts became more nuanced in practice. Nevertheless, physicians intervened in this debate to devalue the report of surgeons because it was not congruent with the established roles. Ultimately, outside the court, another trial began, where the defendants were the surgeons and the prosecution was an unlikely league of lawyers and physicians. Louis Vittet, the sworn physician of the Lyon district, wanted to claim respect for his role, because he was an officer superior to the surgeons Champeaux and Faissolle. The lawyers Joachim Puy and Jean-Baptiste Pressavin, who wrote against their colleagues, were moved

81 Rabier, *Defining a Profession*, 105.

82 Champeaux, Faissolle, *Expériences et observations*, 9.

83 McClive, “Witnessing of the Hands’ and Eyes,” 489–503.

84 Rabier, “Defining a Profession.”

by personal envy, having been excluded from a role, which they could have carried out more competently than others have.⁸⁵ The trial within the trial attracted a great deal of attention.

In the Rouge case, the defending lawyers Bloud, Loyseau and de la Rochette, who obtained a medical counter-opinion to dismantle the conclusion of violent death, first made the objection to the judgment of the experts.⁸⁶ Bloud described the two surgeons as men who “could be mistaken in the conclusion that they draw or rather in their conjectures.”⁸⁷ At this point, Champeaux and Faissole made their reasons public, not because they were interested in the outcome of the trial, but because the credibility of their testimony, based on science and goodwill, had been doubted. The two surgeons called for Antoine Louis’s support and carried out, in the presence of witnesses, a series of experiments on drowned animals in colored liquids. They intended to demonstrate that on the basis of anatomical knowledge and experience, the expert’s assessment was absolutely certain. The surgical experts did not express conjecture, but judgments not open to debate. There could be no mistakes, except in the case of hurry or prejudice; but the mandate conferred to them did not admit either.

Champeaux and Faissole’s statements vacillated precisely on the specific case, since the body was found in such a state of rotting that it could not even be identified. Then, it was impossible to appeal to the evidence of the senses. The trial, as Loyseau pointed out, was paradoxical, as the body of the crime was missing. Also, from a medico-legal point of view, even assuming that they had found the body of Claudine, it had to be proven that the limit had not been exceeded, beyond which organic traces, useful for clarifying the cause of death, could still be found.⁸⁸

Everything led back to the root of the problem: upon finding a body, even after days, how could it be determined whether the cause of death was drowning? Champeaux and Faissole were certain that in the case of Rouge, not having found water in the lungs, it could be ruled out, beyond a doubt, that the death had been caused by drowning. According to them, water, which burst into the airways in the last involuntary inhalation, caused cardio-circulatory arrest. In no case could a drowning person have died without water being found in the lungs when the corpse was opened. The two surgeons, however,

85 Puy, *Consultation de chirurgie*; Pressavin, *Réponse à la lettre de MM. Faissole et Champeaux*.

86 Loyseau, *Mémoire à consulter*, 76–77; Bloud, *Mémoire pour Antoine et Jean Perra*, 29–31.

87 “ont pu se tromper dans la conséquence qu’ils tirent, ou plutôt dans leurs conjectures.” Champeaux and Faissole, *Expériences et observations*, 9.

88 Loiseau de Mauléon, *Mémoire à consulter*, 69.

avoided mentioning that in the Sirven case the corpse had been found with its lungs free of water. The fact of not admitting exceptions to the proof of drowning was instrumental in certifying the certainty of medico-legal assessment. To make their judgment certain, the surgeons made the burden of proof even more formidable with their clearly forced argument, which entailed that a man could die in water because of apoplexy without breathing in liquids. Based on the evidence found, it could not in any case be established whether death had occurred before or after falling into the water. Louis was correct when he distinguished between drowning and submersion. A deadly apoplexy could precede the fall into water. In this case, one died without inhaling liquid because, in effect, there was no drowning.⁸⁹ Nevertheless, his purpose was not to admit the exception and, consequently, diminish the certainty of the medico-legal assessment, but to devise a linguistic loophole, which would save the uniqueness of the expert's interpretation.⁹⁰ "Your experiences are decisive" (*Vos expériences sont décisives*) – declared Louis.⁹¹ However, the scientific value of the proof vanished when, to demonstrate, he appealed to the principle of authority, besides reason and experience: if so many competent people say it – it must be true.

Instead, if legal medicine was to be configured as a science, it had to overcome this empiricism. Louis was not able to make this step forward.

11.6 Conclusions

In two works written in 1768 Louis referred to the hypothesis that water in the lungs was the proof of drowning.⁹² In the following years, he stopped discussing this subject. However, the fact that his views did not change can be deduced from the annotations placed several years later on the margins of some articles transcribed from leading journals. The paper of the anatomist Jean-Théophile Walter, for example, published in 1785 in the *Journal encyclopédique*, appeared to him an "absurdity" (*absurdité*).⁹³ Walter thought that the lungs of the drowned, full of air, prevented blood circulation and provoked deadly apoplexy. Walter was the anatomist of the Berlin Medical and Surgery College and in his career he had performed over 8,000 autopsies. Nevertheless, to his

89 Champeaux and Faissolle, *Expériences et observations*, 80.

90 Ibid.

91 Ibid., 74.

92 Louis, "Mémoire sur la bronchotomie," 501; Louis, "Second mémoire," 543.

93 Walter, "Sur l'apoplexie."

assertion that he had never found water in the chest or in the lungs of the drowned, Louis commented: “This is false” (*cela est faux*).⁹⁴

He then mocked the suggestion given by Dutrone le Couleure in 1783 to whip the drowned immediately after retrieving them from the waters to stimulate blood circulation in the superficial capillaries.⁹⁵ According to Louis, the techniques for resuscitating the drowned were just two: reducing the stasis of blood and venous turgescence with bloodletting and introducing smoke into the rectum to stimulate breathing.⁹⁶ The account by Lieutenant Malnost,⁹⁷ who in 1781 had saved a child by blowing air into his lungs and intestines, caused also his skepticism.⁹⁸ Louis had no uncertainty about the sign for diagnosing death by drowning, but he was more dubious about the effectiveness of resuscitation methods. It is also true that at that time opinions were numerous and contradictory.

Louis's ideas were soon overcome. In 1790 Jean-Baptiste Desgranges described a different kind of drowning, for asphyxiation without the introduction of water or “nervous asphyxia, without matter [...] or for *fainting*” (*asphyxie nerveuse, sans matière, [...] ou par défaillance*) and suggested greater circumspection to experts, when they assessed the cause of death of corpses found in water and delivered to them for medico-legal examination.⁹⁹ The difference between “asphyxia with matter” (*asphyxia avec matière*), i.e., cardio-circulatory arrest following the introduction of water into the lungs, and “asphyxia without matter” (*asphyxie sans matière*), that is, immediate death in water, was confirmed by various observations. To counteract Louis's thesis, the physician Desgranges cast doubt on the value of his experiences: the drowning of animals in the laboratory had provided partial and non-generalizable results because, unlike humans, the small mammals or birds drowned by the experimenter did not feel the terror of death, they did not have psychogenic syndromes, they were not in a state of drunkenness and did not suffer for the cold.¹⁰⁰ Paradoxically, the senses had deceived Louis and had made him consider certain a sign that was not certain. The assessment of a drowning required not only pathophysiological skills, but also psychological and anthropological ones, because the internal or external signs, taken in isolation, were equivocal and insufficient and had to be compared with family history and an understanding of the victim's

94 Bibliothèque municipale de Metz, Manuscrits de Antoine Louis, Ms 1321, G5.

95 Dutrone, “Lettre.”

96 Bibliothèque municipale de Metz, Manuscrits de Antoine Louis, Ms 1321, G5.

97 Pia, “Detail des succès,” 237–239.

98 Bibliothèque municipale de Metz, Manuscrits de Antoine Louis, Ms 1321, G5.

99 Desgranges, *Mémoire sur les moyens*, 22; Larcan, Brullard, “Histoire des idées,” 255.

100 Desgranges, *Mémoire sur les moyens*, 23.

social context. So, at the end of the century, instead of establishing greater accuracy in the anatomical description of a drowned corpse, emphasis was placed on the importance of extending the investigation into the person's history as a bearer of a life experience, that was social before being constitutional.

Louis's contribution remains relevant in this story not only for providing the orientation for medico-legal investigation, but, above all, for urging the class of French surgeons to become aware of the role of this science, which, by objectifying all material circumstances of a crime, was the positive and rational foundation of justice. Louis's role is still little known to historians and should be further examined, beyond the issues discussed here.

The debate on the medico-legal aspects of death by drowning in the second half of the 18th century made the drowned a "star" of the courtrooms, as well as the popular magazines and specialized journals. Despite theoretical diligence, the pathophysiology of drowning remained obscure. Only at the very end of the 18th century did Lavoisier provide the elements to understand the gaseous exchange, which occurs at the pulmonary level with respiration. Physicians then dismissed the explanation that attributed death to cerebral venous stasis and concomitant cardiac arrest and began to emphasize the role of the lungs.¹⁰¹ Meanwhile, legal medicine took shape as a discipline: Paul-Augustin-Olivier Mahon, a pupil of Louis, was the first to have an official teaching position at the Sorbonne (1792). François-Emmanuel Fodéré, who studied legal medicine with Mahon and then had a chair in Strasbourg, in 1798 published the *Traité de médecine légale et d'hygiène publique* (A treatise on forensic medicine and public health), which was the fundamental text for the next generation of French legal medicine practitioners.¹⁰²

101 Larcan, Brullard, "Histoire des idées," 257.

102 Zuberbuhler, "Écrire l'histoire de la médecine légale."

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