

Roman medical instruments with figural decoration: a posthumanist perspective

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Abstract Surgical instruments of the Roman empire are often considered a testimony to the advanced status and high degree of specialization of medicine at the time. Their elaborate figural decorations featuring animals or busts of Hercules have consequently been interpreted as symbols of healing. A posthumanist approach focusing on the affordances of animals and things provides a counter point to this narrative of progress and rationalization: it reveals how the iconography of the instruments still responded to century old ideas of the animality of the human, esp. the female body. A closer look at vaginal specula demonstrates how the intertwining of thing, animal, and human bodies reinforced gender hierarchies.

Keywords animals, magic, medical tools, Pompeii, wandering womb

Introduction

Posthumanists' call for decentering the human has had repercussions in the field of Classics. While there is a case to be (and has been) made for older threads in scholarship going beyond anthropocentrism, a fresh and more radical revisiting and assigning of agency to animals and things in Greek and Roman culture has already yielded exciting results¹. Critics take issue with exactly this move: rather than decentering the human, the “flattening” of ontologies, so the charge, maintains established hierarchies under the deceitful guise of undoing them². My contribution aims to show how entangled both approaches, centering and decentering, can be. I am focusing on the relatively small group of “surgical” instruments adorned with figures of animals or humans. Here, various ontologically different entities or agents intersect: the gods, humans, animals, and things. The objects are made of bronze or copper alloy and roughly date to the

1 E.g. Bielfeldt 2014; Bianchi et al. 2019a; contributions in Bianchi et al. 2019b; Chesi – Spiegel 2020b.

2 Chesi – Spiegel 2020a, esp. 8–11.

1st century BC – 3rd century AD. Without rehearsing their specific typology³, I contend that their design was primarily based on functional, ergonomic⁴, and aesthetic considerations. As to the meaning of the objects' figural decoration I want to go beyond the usual symbolic interpretation; beyond, in the words of feminist philosopher Rosi Braidotti, "the empire of the sign, toward a neoliteral relation to animals"⁵. Paying attention to the affordances of animals and things, but also to different agents that are at play here – healers or doctors vs. patients, men vs. women – I aim to show how the "flattening" of ontologies can highlight power imbalances and gender hierarchies concealed in more anthropocentric and by default androcentric narratives.

Surgical instruments with figural decoration

In his groundbreaking studies of surgical instruments, Lawrence Bliquez suggested that their figural decorations alluded to healing deities: snakes to Asclepius⁶, wolfs to Apollo Lyceus⁷, while representations of Hercules point to his power to ward off evil as *Alexikakos*⁸. All these connections make sense, yet many of the so-called surgical tools had multiple purposes. They could have been deployed in various ways within and beyond medicine, including pharmacy, cosmetics, toiletry, and the arts⁹. Consequently, their decoration would have had multiple meanings.

In his first publication of a bronze grip with depiction of a mouse, for example, Ernst Künzl interpreted the tool as a scalpel handle and the small rodent as a sign of Apollo Smintheus, patron of the pest inflicting fieldmice¹⁰. In a later revision of his view, he argued the handle would more likely have belonged to a writing implement for wax tablets (*stilus*)¹¹, but he left the divine connection unquestioned. The relationship of the mice to Apollo Smintheus, however, seems to have been an invented tradition and limited to the god's sanctuary at Chryse¹². The many bronze mice known from the Roman period have nothing to do with this particular cult: they decorated household utensils, mostly oil lamps, alluding to the omnipresence of the rodents in daily life, which moreover had a reputation for feeding on olive oil¹³. In light of this evidence, it seems more

3 See Künzl 1982a; Künzl 2002; Jackson 1990; Bliquez 1994; Bliquez 2014, 57–297.

4 E.g. Jakielski – Notis 2000, 380–381.

5 Braidotti 2009, 528.

6 Bliquez 2014, 19. 156–157. 177. 189. 274.

7 Bliquez 2014, 20 (Lyceus as Apollo Medicus). One could also think of a dog; its licking was considered salubrious: Cruse 2012, 228.

8 Bliquez 1994, 99–106; Bliquez 2014, 19–20. 74–75.

9 E.g. Jakielski – Notis 2000, 381–382; Geissler 2012, 7–8 with n. 11. Also, producers of surgical instruments did not necessarily specialize in just this segment, even though some doctors designed their own instruments: Künzl 1984; Bliquez 1994, 95–96.

10 Künzl 1982b; Bliquez 1994, 102; Jackson 1994.

11 Künzl 2002, 12–16. A *stilus* can still belong to a doctor's tool kit: Geissler 2012, 11–12 with n. 33.

12 Palamidis 2019.

13 Kiernan 2014, 604–606; Höfstätter – Bielfeldt 2022.

productive to take into account the general affordances of animals depicted on tools, rather than to assign them a specific symbolic meaning related to a designated use¹⁴.

Such an approach has a broader impact on how we understand instruments' functions, including those of surgical tools. Historians of ancient Greco-Roman medicine no longer follow a unilinear narrative of progress but have in the last decades increasingly acknowledged the complexity of traditions at play on an epistemological, chronological, and geographical level, esp. in the Hellenistic and Roman empires. Distinctions between "science" vs. "religion" or "magic" have been recognized to be fuzzy¹⁵. And yet, medical instruments continue to stand for the 'advanced' and sophisticated level of medicine in antiquity, and its relatively high degree of specialization as forerunner of modern western medicine¹⁶. Only recently have scholars such as Patricia Baker drawn attention to potential magical powers of these tools and to the experiences of patients¹⁷. Following this lead, I ask not only what the figural images on the objects represent but what they do.

Fighting the beast

Several medical instruments display elaborate decorations. Building on a sarcastic remark by Lucian (ind. 29) in which he contrasts the work of an experienced doctor who uses coarse tools with that of charlatans who deploy fancy ones, scholars maintain that owning a luxurious medical kit was a professional strategy: it helped the doctor gain authority and trust of the patients who were facing an eventually painful or threatening intervention¹⁸. But the users of the instruments themselves might also have looked for some form of superhuman empowerment or divine assistance guaranteed by the special efficacy of their tools¹⁹. This could have derived from the materials the medical tools were made of: metals, bronze in particular, counted as healing agents²⁰. Similarly, the figural decoration of the tools could turn "the ancient medical practitioner from an average human being to a divine artist"²¹.

This would have been the case with instrument handles in the shape of a bust of Hercules wrapped in lion skin or of a club (figs. 1–2)²². The healing side of the demi-god

14 On the idea of affordance, adapted from James Gibson, see Bettini 2013, 125–130. Intimating the species' rapid reproduction, the mouse on the *stilus* could illustrate a wish for enhanced writing activity, linking the scratching and scribbling in the wax to the little rodents' knabbing traces.

15 E.g. Baker 2004; Steger 2004, 167–195; Faraone 2011; Cruse 2012; Nutton 2013, 280–298; Dasen 2015. I am indebted to Sophia Taborski for discussion of the scholarship.

16 Jackson 1990; Bliquez 2014, 1–22.

17 Baker 2004; Baker 2013, 83–84.

18 E.g. Bliquez 1994, 99; Bliquez 2014, 19; Jakielski – Notis 2000, 380.

19 Baker 2004, 4 points out they might also have been seen as cursed.

20 Bliquez 2014, 16–17; metals: Jakielski – Notis 2000; Laskaris 2016, 156 (metallic drugs in connection with healing cults).

21 Jakielski – Notis 2000, 382.

22 Künzl 2002, 30 B 21. B 22 pl. 20. See also Bliquez 1994, 99–106. 119–120 nos. 40–43 figs. 20–21 (bust); 121 nos. 51. 53 figs. 26. 30; 130 no. 87 fig. 45 (club); Künzl 2002, 16–17 A 6. A 10 pl. 2.



Fig. 1 Knife handle in the shape of a fist and club; copper alloy, iron; from Western Anatolia; Mainz, LEIZA O.38193 (Photo: Leibniz-Zentrum für Archäologie [LEIZA]/R. Müller, PH_2023_01427)



Fig. 2 Scalpel with handle in the shape of a club; copper alloy, iron; from Western Anatolia; Mainz, LEIZA O.38192 (Photo: Leibniz-Zentrum für Archäologie [LEIZA]/R. Müller, PH_2023_01430)

is well attested in many of his sanctuaries in the East and West of the Mediterranean²³. It is furthermore reflected in some of his labors such as the cleansing of the stables of Augias or the killing of the Stymphalian birds where he diverted or averted potentially infectious substances²⁴. But the ancient world's greatest and most flawed hero was also imagined to be afflicted by disease himself: his episodes of madness seem to have prompted the naming of several illnesses. Various ailments were labeled as "Heracles' disease" over time, most prominently epilepsy and skin disorder²⁵. For Bliquez, the Hercules motif on medical tools therefore symbolizes the pain the hero suffered and eventually overcame in toiling through his labors²⁶.

Yet, Hercules was less known for empathy resulting from his own suffering, rather than for his superhuman strength and manliness. His image or simply that of his club, I suggest, was more likely invoked for this reason: as that of a "superman" successfully

23 Bliquez 1994: 102–103; Salowey 2002.

24 von Staden 1992, 131; Salowey 2002.

25 von Staden 1992.

26 Bliquez 2014, 20.

fighting various monsters²⁷. Some of these looked familiar but revealed themselves to be exceptionally big or dangerous: the Erymanthian boar; the Cretan bull; the mares of Diomedes who turned out to be man-eaters, similar to diseases; or the Hydra the stumps of whose severed heads had to be cauterized to stop regeneration. Analogously, dealing with diseases within an externally familiar, but otherwise unknown, disfigured, or monstrous human body must have seemed comparable to Hercules fighting beasts.²⁸ According to the Hippocratic author of *On the Sacred Disease* (morb. sacr. 1, 38), for example, sick people make sounds like animals. A magical gem depicting Hercules killing the Nemean lion reads “Withdraw bile, the divinity pursues you!”, while the beast’s claws seem to have symbolized (stomach) pain²⁹. We can assume that knife grips decorated with the demi-god’s bust in lionskin would have been expected to carry an equivalent power. In a similar fashion, the knobs of the hero’s club on other instruments, while securing a better grip, transformed the tool’s handler into a second Hercules as it were (figs. 1–2)³⁰.

Trespassing

Several surgical instruments either resemble or feature snakes³¹ and have consequently been related to Asclepius for they were healing agents themselves involved in the practices performed at his sanctuaries or processed into various healing substances, and thus the god’s symbol if not his physical manifestation³². Yet generally, the figure of the serpent as monstrous *drakōn* always persisted: dangerous, threatening, and – as any true *pharmakon* – poisonous³³.

While the latter aspect appears to have been less prominent in healing contexts³⁴, another property of serpents seems more significant for the medical instruments: their smooth flexible bodies which allowed them to access and move through almost every orifice, or devour opponents much bigger than themselves. They are trespassers coming and going between the underground and the earth’s surface, the dead and the living, the known and unknown worlds. This is where their magic or divine powers reside; and these would have been the forces bestowed on tools adorned with serpent motives, beyond the act of healing proper. The potency would have been nonetheless

27 His attributes could function as good luck charms or signs of fertility: Dasen 2015, 305–308.

28 On connections between Heracles and Hippocrates see Plin. nat. 78, 123; Sagiv 2018, 46.

29 Faraone 2011, 11–12; see also Dasen 2015, 94–97; Sagiv 2018, 46–48.

30 See also Bliquez 1994, 38. 99–106. 121–130 nos. 51. 55. 87 figs. 26. 30. 45. That the knots could also indicate Asclepius’ staff is less likely. As an isolated image, the club stands for Hercules: Dasen 2015, 94–97. 305–308.

31 Bliquez 1994, 131–132. 168 nos. 91–92. 235 figs. 50. 136 (bone elevators, catheters, tubes); see below for vaginal specula.

32 E.g. Ogden 2013, 310–317. 342–346; Bliquez 2015, 249–250.

33 Ogden 2013.

34 Gaillard-Seux 2012.

efficacious in a medical context for, in analogy to snakes, the instruments literally entered the inner parts or invisible “underground” of the human body³⁵.

Penetrating

Snakes and other animals also appear on specialized medical instruments, such as vaginal specula. Unlike the multipurpose tools discussed so far, these tri- or four-valve instruments were gender specific³⁶ and had a particular form and mode of operation.

Based on eleven examples documented so far, ancient written descriptions, and modern parallels, scholars have come to a technical understanding of the speculum³⁷. Made of bronze, the device’s main operating element is a screw thread or worm with handle³⁸. The “shaft goes through a cylindrical nut [...] with an inner thread (screw nut).” This screw nut constitutes a joint to two “arms” which are in turn connected to a cross-bar. By rotating the screw shaft, this bar is “moved upwards to the screw nut, pushing at the same time the arms to slide into the appropriate grooves of the arm’s connector and thus to open” the valves to dilate the vagina³⁹. When the thread is pulled up the valves remain closed taking on the shape of the erect male genital. Aptly called *priapiscus* already by the ancients it is this part that would be inserted into the female body, similar to contemporary gynecological instruments⁴⁰.

The specula’s elaborate engineering and skillful crafting have made them a hallmark of the advanced state of Roman technology and medical specialization.⁴¹ This also suggested to some that Roman doctors, unlike their Greek predecessors, cared more about female health⁴². If Hippocratics of the classical period were concerned with reproduction and prescribed sexual intercourse as remedy for women’s diseases, Soranus of Ephesos proposed the opposite⁴³. In his *Gynecology* (gyn. 1, 30–32) written in the 1st century AD, he argues that virginity is the best option for a woman to stay healthy⁴⁴. This treatise also contains a description of the speculum and how to operate it⁴⁵. Before inserting the *priapiscus*, doctors are admonished to find out the appropriate size by measuring the woman’s uterus with a catheter – all this to assure she is not hurt. A sense of “‘advanced’ gynaecological care” seems to have influenced

35 The snake is prominent on magical gems, as Ouroboros or in Medusa’s hair: Dasen 2015, 53–85.

36 Unlike the bivalve rectal speculum, e.g. Bliquez 1994, 190–191 nos. 294–295 figs. 185–188.

37 Bliquez 2014, 251–255.

38 Künzl 2002, 31 B 28 pl. 22–28. I thank Norbert Franken for discussing some of the technical aspects with me.

39 Bouzakis et al. 2008, 633; see also Longfield-Jones 1986.

40 The Greek term *lotos* (λωτός) alludes to the opening and closing of the blades.

41 E.g. Bliquez 1994, 62–66. 188–189 nos. 292–293 figs. 181–184; Bliquez 1995; Bliquez 2014, 251–255; Bouzakis et al. 2008.

42 The earliest datable specimens were found at Pompeii; Bliquez 2014, 253–254.

43 Dean-Jones 1994; less binary picture in King 1995; Baker 2004.

44 Pinault 1992.

45 This part has only survived in late antique translations and compilations by Muscio and Paul of Aegina: Longfield-Jones 1986; Bliquez 2014, 251–252.



Fig. 3 Trivalve speculum; copper alloy; from Western Anatolia; Mainz, LEIZA O.38171 (Photo: Leibniz-Zentrum für Archäologie [LEIZA]/S. Steidl, PH_2016_00557)

modern interpretations of specula and their figural adornment⁴⁶. Given that contradictory medical traditions competed side by side, however, material, handling, and decoration of the speculum can be understood otherwise as a closer, posthumanist look shall demonstrate.

The arms of a trivalve speculum today in Mainz end in snake heads (fig. 3)⁴⁷. These animals visualized the capacity of the instrument to enter every orifice of the body it was used to investigate – with sufficient “*drakōn*-power” to overwhelm its opponent⁴⁸. But the serpent also recalled the male sexual organ; consequently, its habit to

46 Baker 1999, 146; Bliquez 2015.

47 Künzl 2002, 31–32 B 28 pl. 22–28. For examples from Pompeii see Bliquez 1994, 188–189 nos. 292–293.

48 Cruse 2012, 282–283; Ogden 2013.



Fig. 4 Reproduction of four-valve speculum from Pompeii (Naples, Mus. Nazionale Archeologico inv. 113264); Mainz, LEIZA (Photo: Leibniz-Zentrum für Archäologie [LEIZA]/R. Müller, PH_2023_01405)



Fig. 5 Reproduction of four-valve speculum from Pompeii, detail: head of a ram (Naples, Mus. Nazionale Archeologico inv. 113264); Mainz, LEIZA (Photo: Leibniz-Zentrum für Archäologie [LEIZA]/R. Müller, PH_2023_01407)

repeatedly go in and out of, in short penetrate the earth made it an agent of fertility⁴⁹. Indeed, snakes had the reputation to impregnate women⁵⁰. On a clearly gendered medical instrument such as the speculum, then, the snake foregrounded the reproductive function of the female body.

The same applies to the decoration of a unique four-valve speculum from Pompeii, here shown in a reproduction (figs. 4–5)⁵¹. The cross-bar of this specimen features the head of a ram on each end. As there is no obvious symbolic connection between animal and medicine or disease in Greek myth, Bliquez refers to Egyptian ram-headed gods Osiris or Khnum who played a central role in creation myths. The heads on the speculum, he contends, symbolically guaranteed “the health and fertility of the female genitalia”⁵². The presence of other Egyptian artifacts recovered in the same area suggests to him the doctor using this instrument might have come from Egypt or been affiliated with Egyptian cults. But while Egyptian medical traditions lived on in the Roman Empire⁵³, the speculum’s findspot – it was excavated in the so-called casa del Medico I (VIII 5.24) – cannot give us precise information about the ethnicity of and cultural traditions performed by its user. Not only does the house’s nickname appear to be no longer justifiable⁵⁴; also, “Egyptianizing” material culture at Pompeii had multiple meanings and played a role in dining and garden culture⁵⁵.

In short, all the context data do not speak in favor of a strong link between the rams on the speculum and Egyptian deities, or even health more generally. Instead, I argue, one of the animal’s most obvious affordances is being bestowed upon the instrument: its percussive force. Much more than a metaphor, the ram does not only symbolize strength or aggressivity. Its particular energy and that of its horns offer the closest connection to the function of the object and how it worked⁵⁶. A wide array of other devices in the Greco-Roman world recurred to the motif of the ram for exactly this reason⁵⁷. Bronze helmets with embossed ram heads on the front or cheek pieces enact these animals’ habit to assert superiority over each other by butting heads – as a fearless warrior would have been expected to do. Ships’ or battering rams assimilate the ferocious and repeated activity with breaching into the hull of another vessel or the walls of a city⁵⁸.

49 Weinreich 1911; Küster 1913, 111–112. 137–149.

50 SIG 2, 803, 7. 117–120. 128–132 (from Epidaurus).

51 Original: Naples, Mus. Nazionale Archeologico inv. 113264; Bliquez 1994, 183–187 no. 291.

52 Bliquez 2015, 252–255.

53 See e.g. Dasen 2015, 60–80. 129–142; Laskaris 2016, 153–154 on metallurgy.

54 “Doctor’s houses” cannot be identified solely based on the finding of surgical instruments; Bliquez 1994, 78–99 and esp. Geissler 2012.

55 Barrett 2019, esp. 182–222. 250–330, detects a range of attitudes, from deliberate “othering” to cosmopolitanism.

56 This also is apparent in the corresponding spiral structure of the horns and the speculum’s thread.

57 The ancient Greek or Latin terms for ram (*κρίος*, *aries*) did not only designate the animal, but also battering rams, including those of ships; Fawcett 1994.

58 Alexandridis 2023, 31–33.

Several other connections between animals in general, rams in particular, and the female body come to mind. The female genitals could be seen as the rams' bestial opponent: Soranus describes the womb as horned (gyn. 2, 57: κέρατα)⁵⁹. And the image of the "wandering womb" roaming around like a restless animal, eager to conceive and give birth, survived in numerous written and material testimonies over the centuries⁶⁰. Even if individual medical doctors such as Soranus or Galen refuted the idea, older views persisted. Inconsistencies even show in the latter's work when he retains several Hippocratic beliefs and recipes such as fumigation, typically prescribed for "taming" the "wandering womb"⁶¹. According to Pliny, a ram's fleece, soaked in oil, relieved inflammation of the uterus; and wool, treated with smoke, could calm down the womb (Plin. nat. 29, 32). It is quite likely, then, that such traditions continued to be held also among those allegedly "advanced" *medici* who used the speculum: in fact, the many incised parallel streaks on the surface of the crossbar seem to indicate fur.

Apart from being imagined as an animal (or as eventually containing one, namely a fetus), the womb also was a thing. Images – mostly on magical gems – show the slip-page between both: often likened to a vessel, esp. a cupping vessel, the womb's upper part could also appear as the head of an octopus⁶². The animal's tentacles would correspond to the "teeth" of a key, building on the idea of the closed or "locked" womb⁶³. What the speculum is doing then by a repeated moving up and down of the ram-headed cross-bar, is to breach the "walls" of a closed, potentially hostile, in any case wild space: the female body.

Simultaneously, this movement and imagery is full of sexual connotations. As mentioned above, the closed valves of the speculum resemble a phallus. Penetration with the instrument reenacts the male genital in sexual intercourse. This association is corroborated by other objects from Pompeii, such as bronze wind chimes (*tintinnabula*) in the shape of a phallus with ram's head or of Mercury riding an ithyphallic ram⁶⁴. These might have served as luck charms; their connection to fertility is also manifest in street signs or small amulets featuring a phallus⁶⁵. Their omnipresence speaks to a persistent concern with male contribution to fertility and reproduction which must have spurred the speculum's figural decoration rather than care for the womb.

How patriarchy ruled women's body also seems apparent in how the speculum came to be used. As described for the removal of abscesses, the female patient had to lean backwards on a chair, her legs tucked up and spread, with her arms in the hollow of the knees and strapped to her neck. Two people operated the speculum: holding the device by its handles, the doctor inserted the metal *priapiscus*, while an assistant

59 The Egyptian sign for uterus referenced the double-horned womb of a cow: Dasen 2015, 63.

60 The *locus classicus* is Plut. Timoleon 91 b–e. On the longevity of the idea Faraone 2011.

61 E.g. Flemming 2000, 275–283, 342–347; Faraone 2011, 3–9.

62 Dasen 2015, 53–80, 113–152; Bonnell Freidin 2021.

63 Dasen 2015, 68–72.

64 Parker 2018; Pfisterer-Haas 2022; Alexandridis 2023, 20–23.

65 Dasen 2015, 305–307 (the phallus' relation to Hercules' club and fist); Whitmore 2018; see also Plin. nat. 28, 39 (spirit of phallus protecting small children).

turned the screw to dilate the vagina (Paul. Aig. 7, 73)⁶⁶. No matter with how much caution they acted, for the patient this position would have caused a lot of discomfort in the first place. The shame and stress to have her intimate parts exposed and scrutinized would have augmented even more if both doctor and assistant were men which in this case most likely was the usual situation⁶⁷.

The specula discussed here are a testament to competing medical traditions in the Roman empire. While the instruments might represent a “scientific understanding of female anatomy”⁶⁸, for many, the default body remained male⁶⁹. And while the instrument helped cure diseases of the genitalia or removal of a dead fetus⁷⁰, its form, handling, and visual décor harkened back to an old idea of the female body as unruly and in need of domestication by sexual intercourse and pregnancy⁷¹. It is precisely the “flattening” of ontologies between humans, animals, and things – instruments enlivened as animal agents (snake, ram) and assimilated to male sexual organs – that reified an age-old gender hierarchy: patriarchal rule of the female body.

Conclusion

An anthropocentric approach that sees animals and things as largely dominated by humans promotes the ultimately progressivist idea that the décor of medical instruments symbolized healing. A posthumanist view instead that grants animals and things more agency reveals how deeply ingrained traditions persisted in new guise. Rather than advanced tools of investigation representing care for the patient’s health, the medical instruments worked as weapons against the monstrous elements of the human, especially the female body. As visualized in their décor, specula enacted penetration to tame the womb and guarantee procreation.

66 Significantly, popular imagination today takes a similarly shaped device, the so-called “pear of anguish” (erroneously) for a medieval torture instrument: Bishop 2014.

67 Soranus (gyn. 1, 3–4) ascribed different tasks to the midwife.

68 Baker 1999, 146.

69 Flemming 2000 for Galen.

70 Bliquez 2014, 255.

71 The dedication of anatomical votives is more likely concerned with health: Flemming 2016; but see Schörner 2015.

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Acknowledgements

Many thanks to Niklas Kattwinkel, Mainz/LEIZA, for generous help in providing new color photos.

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