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Recording the Root-Cutters and Writing for Midwives: Medical Knowledge Exchanges
Between Elite and Non-Elite in the Ancient Mediterranean

A Thesis submitted in partial satisfaction
of the requirements for the degree of

Master of Arts

in

History

by

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Table of Contents:

Title Page.....	i
Copyright.....	ii
Acknowledgements	iv
Introduction	1
Historiography and Methodology	2
Sources	7
Creating “Elite-ness” and Elite Knowledge.....	10
Medical Schools	11
Book Culture	16
Public Debates	19
Plural Healing, Beyond Elite Men	21
Herbalists as Non-Elite Men	22
Women and Healing	28
Enslavement, Healing, and Experimentation.....	34
Agency in Dissection and Vivisection	42
Conclusion	53
Bibliography	55

Introduction

Antiochis of Tlos is not a name that is renowned in the history of medicine. Antiochis, a woman living in the 1st C BCE, barely survives in the historical record; she is only known through a surviving base of a statue in which Antiochis proclaimed her own skill as a doctor.¹ Antiochis' proclamation of her own aptitude as a healer provides a rare glimpse into an even rarer type of healing practitioner: a female doctor who was also seemingly of elite status. Perhaps despite or because of her exceptionalism, her name is only mentioned in scholarship occasionally and in the context of women, while her work and life remains hidden in the shadows of great men. Instead, the study of ancient medicine has contributed to "great men" histories, in which we read about the many contributions and legacies of a few over-imposing names in the historical record that is saturated with elite men, such as Galen and Hippocrates.

Yet, it is largely recognized that these elite men are not representative of the field of actual medical practitioners in antiquity; they are, rather, a small minority whose voices happen to drown out the majority. This thesis contends that it is necessary to instead look at the roles of non-elites in ancient medicine, not only as they represent the majority of practitioners, but as voices and narratives that have been silenced in their contributions to the history of medicine. Examining the broader voice of healers in the ancient world also makes it clear that these voices were not as missing in the ancient world as they are now in the historical record. Rather, these healers were essential to the

¹ Évelyne Samama, *Les Médecins dans Le Monde Grec: Sources Épigraphiques sur La Naissance D'un Corps Médical*. École pratique des Hautes Études, Sciences historiques et philologiques, no.3. (Geneva: Librairie Droz, 2003), 390. Although some argue that another Antiochis that is named in medical writings for having recipes might be the same Antiochis, the evidence is not conclusive.

practice and dissemination of healing knowledge, and even exchanged knowledge with elite medical researchers and healers.

In order to move past the traditional narrative of Greco-Roman medicine, it is necessary to examine the ways in which elite and non-elite categories were created and contested, how elite knowledge was produced and circulated, and the ways in which non-elites practiced medicine within these created social structures. Ultimately, this approach will demonstrate that this ancient context has much more plurality than is normally depicted in the historiography and that there are important moments in which elites and non-elites communicated and exchanged medical knowledge, creating not disparate but entwined medical histories.

Historiography and Methodology

The narrative of medicine and healing is often told from a perspective that only values and uses sources describing the practice of elites. One such work is that of Vivian Nutton, a noted historian of medicine, who in his seminal work, *Ancient Medicine*, introduces the problem of only studying elite medicine. Nutton recognized that the elite did not constitute a majority of medical practitioners or healers, but still made the study of elite medicine the basis of his survey for all medicine in the Greco-Roman world.²

Nutton's work remains important, others have begun to emphasize non-elite medical practitioners. Rebecca Flemming has contributed substantially to the literature on

² Vivian Nutton, *Ancient Medicine: Second Edition* (New York: Routledge, 2013), 1: "to begin by talking of written records is to risk forgetting that much of Greek and Roman medicine never made it into writing at all for in a society where literacy was restricted on the whole to the higher echelons of male society oral communication predominated."

women who were involved in medicine and healing in the ancient Roman world, either as healers or receivers of healing in works such as *Medicine and the Making of Roman Women: Gender, Nature, and Authority from Celsus to Galen* and “Women, writing, and medicine in the classical world.”³ Works like Flemming’s not only give voice to historical actors like Antiochis but help to reveal how social status and differences can intersect with the history of medicine. Flemming proves that women were important healers and contributors to medical knowledge, even if they are underrepresented in the sources.

Other works, like Philippa Lang’s *Medicine and Society in Ptolemaic Egypt*, which uses extensive papyrological evidence, help enunciate sources that give a closer view of non-elite healers in a more limited region and time.⁴ Lang’s source base elucidates more non-elite healers and how they worked and lived in Ptolemaic Egypt, while also demonstrating the clear divides that still existed along ethnic lines, as local Egyptian and transplanted Greek medicine had little interaction and exchange.

There are also recent collections that are ripe for mining of sources, such as Évelyne Samama’s *Les Médecins dans Le Monde Grec: Sources Épigraphiques sur La Naissance D’un Corps Médical*, which dutifully collects all known Greek inscriptions related to medicine down to the 6th century CE, but does not attempt an argument.⁵

³ Rebecca Flemming, *Medicine and the Making of Roman Women: Gender, Nature, and Authority from Celsus to Galen* (Oxford: Oxford University Press, 2000) and ‘Women, writing, and medicine in the classical world’, *Classical Quarterly* 57 (2007), 257-279.

⁴ Philippa Lang, *Medicine and Society in Ptolemaic Egypt* (Boston: Brill, 2013).

⁵ Évelyne Samama, *Les Médecins dans Le Monde Grec: Sources Épigraphiques sur La Naissance D’un Corps Médical*. École pratique des Hautes Études, Sciences historiques et philologiques, no.3. (Geneva: Librairie Droz, 2003).

Samama's work is still representative in some of the move towards using non-elite sources, as inscriptions can help feature the work of those who are not cited and recorded in the normal elite literary and medical texts. Elites are still heavily featured in inscriptions, but they are also one aid in broadening the perspective of medical practitioners.

All of these more modern works still represent an important change in trend in the history of medicine and science broadly, which had previously been interested in creating and then defending the history of Greek science as a precursor to later Western science, a notion Nutton calls the "Greek miracle."⁶ The historiography of the "Greek miracle" relied on upholding the view of ancient Greeks as a rational people, who spearheaded the study of science and medicine in a straight line of progress that led directly to the modern West. For example, G.E.R. Lloyd, one of the most prominent historians in ancient science, in his 1979 work *Magic, Reason and Experience: Studies in the Origin and Development of Greek Science*, viewed magic and science as a strict dichotomy; although philosophers and early scientists might believe in both, they are considered as separate categories of investigation for Lloyd.⁷ By developing an exploration of what is considered magic (the irrational) and science (the rational) by appealing to modern scientific standards, Lloyd simplifies the view of Greek thought.

Lloyd would later update some of this work in 1999's *Science, Folklore, and Ideology: Studies in the Life Sciences in Ancient Greece*, which argues that classifications

⁶ Nutton, *Ancient Medicine*, 13.

⁷ G. E. R. Lloyd, *Magic, Reason, and Experience: Studies in the Origin and Development of Greek Science*, *Studies in the Origin and Development of Greek Science* (Cambridge [Eng.]; Cambridge University Press, 1979).

in Greek science were largely based on folk or popular ideas.⁸ Yet, Lloyd's argument still sees folklore and science as somewhat oppositional and separate categories, a recurring feature in many works that adopt Greek science as a precedent to later Western science, and does not detail how this knowledge was exchanged. He presents instead Greek science as subject only to earlier folklore, rather than something that continues to develop along with "folk" practices.

While all of these works are important for their contributions to expanding the views of who were medical practitioners, they often examine a smaller group or region without consideration for how these healers might interact across various social boundaries. In addition, they sometimes take medicine and healing in terms of more modern applications, ignoring healing rooted in religion and popular practices sometimes associated with superstition, which are often again separated into different works. Although these practices may not contribute as directly to the normal purview of history of medicine, they are still important categories if we are to truly understand the scope of ancient healing on ancient terms.

Thus, while there has been more recognition that non-elite and non-male practitioners are important in the history of medicine, they are studied independently and without the recognition that they are entwined medical histories. Therefore, I will elaborate on and employ G.E.R. Lloyd's recent writing on plurality, which argues that historical medicine has a "diversity of practitioners and practices ... not just diversity as

⁸ G. E. R. Lloyd, *Science, Folklore, and Ideology: Studies in the Life Sciences in Ancient Greece* (London: Indianapolis: Hackett Publishing Company, Inc., 1999).

between one ancient culture and another, but also within each.”⁹ While Lloyd makes clear that physicians often situate themselves in opposition to other physicians’ views and are therefore aware of other medical practices, he does not emphasize this state of opposition as an important demonstration of knowledge exchange.¹⁰ I will expand plurality to focus on these points of exchange and demonstrate that not only were there different social strata of practitioners and practices but that these plural practices and people were also engaged with each other intellectually.

This argument necessitates that these medical histories be put in conversation with each other to demonstrate not only the similarities and differences in medical knowledge, but also the plurality of interactions of various healers. I will show that, despite impressions that elite and non-elite healers would have had limited interactions with one another, there are multiple examples of knowledge transmitted across social classes, gender divides, and even statuses of freedom and enslavement. Furthermore, this knowledge did not travel unilaterally, but elites would learn from non-elites and non-elites could also gain knowledge from elites.

Sources

Nutton is correct that not many written records are left from such non-elite practitioners, especially records traditionally used to narrate medical histories, such as medical treatises and narratives written by medical practitioners, but there are still

⁹ G.E.R. Lloyd, “A Return to Cases and the Pluralism of Ancient Medical Traditions” in *Medicine and Markets in the Graeco-Roman World and Beyond*, ed. Laurence M.V. Totelin and Rebecca Flemming (Classical Press of Wales, 2020), 71.

¹⁰ Lloyd, “A Return to Cases and the Pluralism of Ancient Medical Traditions”, 74.

important sources to be used. This thesis will utilize two main sources: elite literary works in the normal canon and inscriptions.

Elites do sometimes make mention of non-elite medical practitioners in their writing, whether in reference to the knowledge they hold or the knowledge they lack. These sources must then be recontextualized to understand how and when they report on non-elite medical knowledge, rather than recording the elite knowledge these sources are normally referenced for. Three main sources are Theophrastus, Galen, and Pliny the Elder. Theophrastus was a Greek scholar living in the late fourth and early third century BCE, primarily based in Athens in the latter half of his life. Theophrastus is particularly famous for his associations with Aristotle, whom he studied under before he took over as his successor to the Peripatetic school. Theophrastus himself is not a medical practitioner, but he does record important medical beliefs of non-elite practitioners in his *Historia Plantarum*, albeit with reservation.

Pliny the Elder serves as the main Roman source in this thesis; living in the Roman Empire in the first century CE, Pliny represents another elite who was interested in some non-elite ideas. Pliny the Elder is largely known for his work, *Naturalis Historia*, an early encyclopedic work that included cataloguing of medical knowledge in the form of records on plants and herbs. Although there is a large difference of time and space between Pliny and Theophrastus, they both represent similar patterns in how elites view and approach knowledge from non-elites.

Galen is perhaps the most famous of ancient medical practitioners, as his ideas would permeate medicine for centuries to come. Galen lived slightly later than Pliny, in

the second century CE, and represented some of the itineracy associated with ancient doctors, moving from Pergamum in the East and spending time in both Alexandria and Rome. Galen is situated much differently as an elite in the historical record because of his position as an actual practitioner. However, his works still clearly represent the way an elite would navigate the ancient world, and this is also represented in how he records his interactions with non-elites, including women and slaves.

Furthermore, it is necessary to look beyond the normal canon of sources to look at those that come closer to self-representation and writing by those who were not elite men, such as funerary and sanctuary inscriptions. Such inscriptions give insight to how those outside of the elite class might have lived and occupied the world of healing in the ancient Mediterranean. Inscriptions must still be handled carefully in their use and interpretation, as they are not necessarily non-elite in their creation; many inscriptions were inscribed either by or for those of elite status. There is a particular problem of epigraphic sources that are dedicated towards non-elites, as it was frequently those of elite status who wrote or commissioned inscriptions concerning a non-elite person, such as a beloved wet-nurse or a slave who was manumitted.¹¹ Even though many inscriptions are also representative of people of elite status, they add color and nuance to the picture of elite medicine. Since only a few names survive frequently in literature, like Galen, inscriptions can help provide a broader range to fill out the picture of elite medicine.

¹¹ Angeliki Kosmopoulou, "Working Women: Female Professionals on Classical Attic Gravestones" in *The Annual of the British School at Athens*, vol. 96 (2001: 281-319), 285.

In the aim to create a fuller picture of interactions between elite and popular medical practices, this thesis explores a larger framework of practices and patterns in the history of Greco-Roman medicine. In contrast to earlier works on the subject as discussed above, this thesis takes a broader approach to both geography and space. I have chosen to focus in particular on the Hellenistic period and early Roman imperial era, from the late fourth century BCE to the second century CE. The Hellenistic period is significant for its growing number of sources that feature information about medical practices and is known for elite advancements; it is also an important period in elite medical development through the collecting and consolidation of the Hippocratic corpus. Examining up to the early imperial period in Rome elucidates some of the ways in which these medical theories have changed and developed under Roman influence, as it had a strong reliance on Greek medicine.

Moreover, this thesis is not limited to specific regional practices of medicine, but examines instead a wide range of regions, from Rome to the Greek East and with brushes along the Pontic Kingdom. While this method has some disadvantages, in particular the loss of detail that other, more focused works are able to produce, like that of Lang, there are advantages. Primarily, the focus on a greater expanse of time and space will bring into sharper relief the long tradition of knowledge exchange in Greco-Roman medicine. In addition, it will demonstrate that these knowledges were not always local, but rather that knowledge exchange happened across a longer chronology and wider geography for both elite and popular medical knowledge.

Creating Eliteness and Elite Knowledge

Inhabiting and embodying “being elite” is not a process that is clearly defined in the ancient world, as it cuts across several intersections of social understandings, such as financial standing, political involvement and power, and even literary knowledge. So, while there are some clear markers and obvious examples of who is elite, it is largely a loosely defined category that is socially constructed and reinforced by performances of eliteness. This section will analyze some of the ways that elites, and particularly men, performed their eliteness to establish themselves in the social world within which they existed, while simultaneously defining others as non-elite.

The picture of eliteness is more complicated and interesting when looking at the world of medicine, particularly because medicine in antiquity was associated with non-elites. Interest in the study of medicine or theories of healing were nothing to be ashamed of, but the actual practice of medicine and healing was a trade job, associated with the non-elite.¹² Galen himself made it clear that any man who practiced medicine for money was inherently an unsuitable doctor: “As often the ones loving money are druggists, not doctors and they use the art for the opposite thing than as is natural.”¹³ Those then that constructed and performed their lives as elites, had to position themselves carefully in medicine and healing by aligning themselves with other established elite activities, such

¹² Veronique Boudon-Millot, “The Cost of Health: Rich and Poor in Imperial Rome” in *Medicine and Markets in the Graeco-Roman World and Beyond*. Trans. Laurence M.V. Totelin, ed. Laurence M.V. Totelin and Rebecca Flemming (Classical Press of Wales: 2020), 2. Also Molly Jones- Lewis, “Physicians and ‘Schools’”, 389.

¹³ Gal. *Quod optimus medicus sit quoque philosophus*, 0057.003.61 (Kuhn 1.61):
πολλάκις ὡς φαρμακεῖς εἰσιν, οὐκ ἰατροὶ καὶ χρῶνται τῇ τέχνῃ
πρὸς τοῦναντίον ἢ πέφυκεν οἱ φιλοχρήματα.

as engagement in philosophical schools, book culture, and agonistic public debates. In addition, these elite performances of medicine were often inaccessible to non-elites, which helped inscribed who was and was not elite in the practice of medicine and healing.

Medical Schools

Elite medical schools, the main medical schools that functioned in the ancient Greco-Roman world, often relied on past prominent thinkers to define their associations and allegiances to particular schools of thought. Just as philosophical schools would claim to carry on the traditions and teachings of thinkers like Aristotle, medical schools would claim lineage to famous figures like Hippocrates. The medical schools are also similarly unshaped in their physicality, such that some medical schools are simply schools of thought that various people adopt and ascribed to, building their knowledge from the written corpus, while others are physical schools that are centered in a region around a written or oral corpus and practice.

Unlike philosophy, medicine could be more accurately described as a trade.¹⁴ It was a job that could be practiced in exchange for funds, rather than philosophy which was purely a pursuit of the elite that could afford it or find patronage. Paying for a healer is a type of patronage, but who the money comes from and the need behind it, divides these activities. Healers are patronized out of necessity and often by non-elites, whereas

¹⁴ In addition, many of the healers, barring the famous elite ones whose names we know, would have rarely been associated with the elite and would be similarly economically inclined as other trades were. See SEG 45-2270 (and Nutton 2013).

philosophy is an extraneous pursuit and philosophers were often employed by other elites and even nobles. Further, elites who practiced medicine focused on making it clear that they were studying a branch of natural philosophy, not just a trade.¹⁵

Medical schools on the other hand have a long history that goes back to the historical Hippocrates in the 5th century BCE. It is also important to note that attending a school was not a necessary precursor to practicing medicine in the ancient Greco-Roman world, as there were no official institutions that would have issued licenses or certifications. The way to build a kind of “accreditation” in healing was instead based on one’s personal reputation and social connections, which could be developed through attending a medical school. Schools were not an option that was available to everyone equally as costs of entry and lack of social connections would have been barriers to entry.

First, it is necessary to demonstrate how medical schools arose around particular individuals and the implications of that model. As Nutton points out, in the Greek tradition there is strong evidence for the main medical lineage belonging to the island of Cos and Hippocrates.¹⁶ The life and figure of the historical Hippocrates is highly contested, and contradictions and legends abound in the later Greek sources. While we can accept that a historical Hippocrates existed, we are unable to know more about his actual theories or his decisions as a practitioner.¹⁷ Two areas in which we can be more

¹⁵ Vivian Nutton, *Ancient Medicine: Second Edition*, (New York: Routledge, 2013), 51. Nutton explains how an author within the Hippocratic corpus even argued that natural philosophy should be derived from medicine and Galen also makes this argument in his treatise aptly named *Quod optimus medicus sit quoque philosophus*, *The Best Doctor is Also a Philosopher*.

¹⁶ Nutton, *Ancient Medicine*, 54.

¹⁷ There has been much debate both in ancient and modern scholarship about how one might determine which writings of the Hippocratic corpus are genuine to the actual Hippocrates; many scholars recognized that not all writings in the corpus were created by one man but are instead the work of many authors who

confident about some details of Hippocrates are his familial claims and means of knowledge transmission.

The familial claim associated Hippocrates as a descendant of the Asclepiads, a family who is not necessarily associated with the god Asclepius, but whose name is still synonymous with medicine.¹⁸ This family, even before Hippocrates, was supposedly well-known for their healing knowledge and prowess and Hippocrates carried on this tradition. It is unclear how acclaimed Hippocrates' family really was and may in fact be a later elite invention to give credit and esteem to those who claim elite medical knowledge. This process follows in line with other ancient practices of claiming descent from legendary figures like Herakles or Homeric heroes.

Rather than just practicing medicine, there are also some depictions in which Hippocrates actually teaches medicine, such as in Plato's *Protagoras*.¹⁹ This view of Hippocrates then gives us some of the first evidence of a very loose Greek medical school. The actual structure of the school itself is unclear, but we do see that Hippocrates is teaching for pay. This school for pay seems like an unusually low bar of entry into the medical profession, but depending on the cost of lessons, this may have been a very exclusive group of people who could have afforded it. Given that most practitioners are assumed to have been illiterate or working from popular knowledge, training from an Asclepiad like Hippocrates would not have been necessary to become a doctor.

sometimes had different approaches and beliefs about medical care. See Lloyd, "The Hippocratic Question" in the *Classical Quarterly*, vol. 25, no. 2 (1975): 171-192 and Elizabeth Craik, *The 'Hippocratic' Corpus: Content and Context* (New York: Routledge, 2015) for some approaches towards answering this question.

¹⁸ Nutton, *Ancient Medicine*, 56.

¹⁹ Plato, *Protagoras*, 311.

While Hippocrates and the relevant Hippocratic corpus is somewhat legendary and now recognized to actually be a collection authored by a wider number of authors, this tradition is still important for how Greeks themselves understood and related to the idea of a historical Hippocrates. Since Hippocrates took on the position as the preeminent Greek doctor, and all writings associated in his corpus took on the same esteem, we can then see how later doctors, at least those who were able to access his works, would have related to them. This tradition already begins to hint at how elite medicine was performed and barred non-elites, since it not only relies on a written corpus but when it does not, there is a monetary barrier that is presented, despite how unclear that barrier is.

Not much more can be said of very early, even elite, medical practices, but there is more evidence in the great compiling that occurs in the Hellenistic period in conjunction with the rise of academic institutions that support and serve as patrons to greater research. It is under these conditions that even the Hippocratic corpus is believed to have begun to be first compiled, later in the Hellenistic period along with other works like those of Theophrastus. It is then partially under the influence of these academies that medical schools were able to develop further, due to the support of patrons, the access to large libraries and the collection of scholars themselves. This scholarly activity would not only lead to a flurry of research and further information about the body, but also the development of different medical schools.²⁰

²⁰ Part of the growing knowledge of medical research can be attributed to the first mention of dissection that was done by a Greek scholar (a practice that was more practiced by the native Egyptians due to embalming and burial practices but was otherwise seen as taboo in Greek culture). See Nutton (2013) and Lang (2013). There are also growing collections of pharmaceutical knowledge; both will be discussed later within this paper.

Hellenistic medical schools become more nuanced than previous developments, as new defined medical lineages are created and plural theories of healing are employed within the different lineages. These schools do not always have a clearly defined form; as Molly Lewis-Jones makes clear, sometimes these schools were actual physical schools that people might have attended to receive training, but often they were broader schools of thought, in which people could lay claim to the same philosophical and practical stakes, but were not necessarily trained in one defined physical space.²¹ Some of the most prominent schools included the Methodists, the Rationalists and the Empiricists.²² The history of these schools is summarized by Pseudo-Galen as a long line of successors based on who leads the school, and who breaks and divides from the oldest Rationalist school, which traces its lineage directly to Hippocrates.²³

If we take into consideration the physical school, we can see how these models might relate to the semi-legendary Hippocratic model discussed above, in which students came to a particular teacher who was already acclaimed or had a claim to a medical lineage, and then paid that teacher for access to their knowledge and later also paid access for claim to their medical lineage. It is also noteworthy that this practice is not particular to the Hellenistic period but would also continue beyond it, into the early Roman Imperial period that doctors like Galen are situated within.²⁴ There we see similarities as

²¹ Molly Lewis-Jones, “Physicians and ‘Schools’” in *A Companion to Science, Technology, and Medicine in Ancient Greece and Rome: Volume 1*, ed. Georgia L. Irby (Oxford: Blackwell, 2016), 395.

²² The Dogmatist school is also occasionally referred to as the “Rationalist” school.

²³ See Caroline Petit “What Does Pseudo-Galen Tell us that Galen Does Not? Ancient Medical Schools in the Roman Empire” (2014) which argues that the Pseudo-Galen is a reliable source and necessary for the history of medicine even if the authorship is unknown.

²⁴ Vivian Nutton 9/16/21 11:46:00 AM, “Numisianus and Galen” in *Sudhoffs Archiv* vol. 71 (1982), 235.

Galen references who his teacher was as a means of building his credibility via his medical lineage even though Galen refuses to associate with a particular school, a move seen as unusual for an elite doctor.²⁵ It can then be seen that those who could afford access to such a medical school would have to be from a more elite background, both to have the initial funds to attend the school and probably to even be engaged in the same social circle to know of a medical school, especially in the earlier Hellenistic period. However, non-elites would not only have been limited by physical schools.

Book Culture

Access to a school of thought, or a non-physical school, would have also been prohibitive to anyone but the elite, which is evident in the larger book culture that develops in early Imperial Rome from Hellenistic roots. Book culture again developed alongside the large academic institutions, because it was only such institutions that could develop and afford these large-scale libraries because of the funds of the state. Such institutions were developed all throughout the larger Hellenistic world, and there was even state competition on large-scale book compiling, which many have argued was a means of displaying empire.²⁶ This empire building however also gave way to increased patronage and book culture flourished as books became both collector items and symbols of elite status, including books on topics related to healing.

²⁵ Galen, *Ord. Lib. Prop.*

²⁶ See Rolf Strootman, *Birdcage of the Muses: Patronage of the Arts and Sciences at the Ptolemaic Imperial Court, 305-222 BCE* (Peeters Publishers: 2017).

Depending on the time and context there are large differences in access to books, but for the most part, books must be considered a luxury that few had access to and that even fewer had personal copies of.²⁷ Thus, while the academic institutions that began in the Hellenistic period facilitated wider availability of books, they did so only to a limited group of people. The library in the Mouseion of Alexandria was not an open access library but instead a research library that was developed and collected for those who were also provided patronage at the Mouseion. It is also clear that it was not anyone who could apply for patronage at the Mouseion, but instead it was only those who had already shown a predilection for research and proved themselves in an appropriately academic sense.²⁸ Of course those who were able to do so must have been from elite or at least comfortable enough families who had the financial means to engage in non-trade jobs, which were largely unrewarded or earned money through schools, such as those that taught rhetoric, a skill that largely benefitted political elites. This system is not only evident however in Alexandria but can also be imagined in other philosophical academies in Greece, such as the Lyceum in Athens. Again, this would not have been a public library that was open to all but instead a library that was only for use and available to those who were already able to pay for tuition for the philosophical school.

²⁷ For literacy see Rosalind Thomas, *Literacy and Orality in Ancient Greece* (Cambridge University Press, 1992) and William V. Harris, *Ancient Literacy* (Harvard University Press, 1989). Not necessarily all book trade was only for elites, and certainly there is evidence that there is some wider access to books, but often literary and specialized texts are associated with eliteness as a form of inscribing elite characteristics and gatekeeping, see Peter White, "Bookshops in the Literary Culture of Rome" and William A. Johnson, "Constructing Elite Reading Communities in the High Empire" in *Ancient Literacies*, ed. William A. Johnson and Holt N. Parker (Oxford University Press, 2009).

²⁸ Strootman, *Birdcage of the Muses*, 36.

From this earlier Hellenistic book collecting, grew a prominent book culture that also carried into Rome, and is visible into the late Republic. This book culture is as Tutrone argues, part of what makes the spread of knowledge visible in early Rome.²⁹ An important difference in this book culture, is that books gradually became more accessible for elite readers, and the purchase of them was encouraged because of the particular social status a library would have conveyed. Engaging in such book culture was also an important part of elite public life, both to show off intellectual interests and to form social circles, as people would read together and discuss the readings with one another.³⁰

The ownership of an extensive library then opens opportunities for one to grow their social circles, especially as it was frequent practice for elites to call upon each other to borrow books and utilize these private libraries. This practice can be seen as early as Cicero, who apparently had a habit of using Lucullus' library and even borrowing books from him.³¹ Similar activities can also be gleaned from the practices of Galen, who was known to share books from his own library, and even make copies of his own publications to be sent to his friends at their request.³² Thus, as books became more common, although still a great luxury and rarity to anyone but the elite, they became an important formulation in the fabric of elite life, especially in the creation of their public image.

²⁹ Fabio Tutrone, "Libraries and intellectual debate in the late Republic: The case of the Aristotelian Corpus" in *Ancient Libraries*, ed. Jason König, Katerina Oikonomopoulou and Greg Woolf, (Cambridge: Cambridge University Press, 2013), 156.

³⁰ Alexei V. Zadorojnyi, "Libraries and *paideia* in the Second Sophistic" in *Ancient Libraries*, ed. Jason König, Katerina Oikonomopoulou and Greg Woolf, (Cambridge: Cambridge University Press, 2013), 377.

³¹ Tutrone, "Libraries and intellectual debate in the late Republic: The case of the Aristotelian Corpus", 157.

³² Galen, *De Libris Propiis*.

Public Debates

Public image however was not only cultivated through book culture and the exchange and debates surrounding books and copies of books. There were a multitude of ways one could gain favor in the public eye, one of which was directly relevant to the practice of medicine, namely the public lecture. Public lectures were an important part of developing a public figure particularly because of the large audience one could demonstrate towards. These public lectures took place on different scales; some lectures were smaller and limited to other elites, such as poetry readings at private homes, but others were in larger settings.

Since the larger locations are not necessarily specified in the extant sources, authors have suggested a variety of places that would have been used for such performances. Drawing on Galen's corpus, Heinrich von Staden suggests, "[Galen] often uses 'public' [*dēmosi-*] to refer, for example, to large public baths, public gymnasia, stadia, the circus, large public libraries, and so on."³³ These performances, even when made to the larger audiences, however still carried important social connotations for how the elite doctors were perceived. Notably, these public lectures were a large part of the Second Sophistic, an elite cultural movement which emphasized revisiting and modeling the classical era; as such many of these public performances, which are situated in "classical" public settings were approved by the state (and sometimes emperors) and used

³³ Heinrich Von Staden, "Anatomy as Rhetoric" in *Journal of the History of Medicine and Allied Sciences*, vol. 50 no. 1 (1995), 61.

to gain more acclaim among the elite intellectuals.³⁴ This relationship to schools and accreditation is synthesized succinctly by von Staden, “their fame as public performers depended ... [on] their ability to draw students to their private ‘schools,’ and on the reputation of their ‘schools’ and private pupils partly depended, in turn, the degree of their prestige in the public arena.”³⁵ Therefore, public prestige or acclaim gained through public lectures was both reinforced and perpetuated by these public performances. This then also gives us clear insight into who was able to offer these public lectures, namely the elite, especially in consideration of those who would have had access to invitations from and approval by the state.

However, these public lectures did not occur within a vacuum. It is a notable part of ancient medicine that there is no formal method of accreditation or medical licenses, even for those who participated in and learned from these medical schools, which at most served as informal accreditation and instead was a symbol of that doctor’s approach to healing and medical lineages, as was discussed above. Instead, doctors had to earn their reputations, this could be done through a multitude of ways, but one important way was through their public life, and there was no way to garner a bigger audience than through a large public lecture. Yet, because these doctors were also competing for their reputation and approaches to healing to be confirmed in opposition to each other, these performances can be seen in a broader agonistic context.

³⁴ Von Staden, “Anatomy as Rhetoric”, 49.

³⁵ Von Staden, “Anatomy as Rhetoric”, 49.

These lectures turned contests were therefore an important performance for an elite doctor, as one could use the opportunity to demonstrate their medical knowledge, especially if it was in opposition to another doctor that could be proved incorrectly, a favorite practice of a young Galen.³⁶ This was an important aspect to establishing oneself as a doctor and can be seen from the perspective of those who were watching as a logical way to assess skill, especially when these lectures turned into performances, as some did, in which the doctors would use animals as a means to prove medical theories.³⁷ Yet, to be invited to hold such a lecture was not open to everyone, and was often considered a privilege, demonstrating another way in which non-elite medical practitioners would again be barred from the larger conversation of medical practice, who at most could only pose as passive receptors of the knowledge being demonstrated.

Plural Healing, Beyond Elite Men

The above sketch seems to imply that elite medicine would be very disparate from any forms of non-elite medicine, and this is historically how this process has been described. Despite this picture there are still important instances in which elite and non-elite medical knowledge and even practice converged. Even more importantly, this convergence was not only due non-elites learning from elites as might be expected; but elites would also learn from non-elites and in some instances specifically seek out their knowledge.

³⁶ Susan Mattern, *The Prince of Medicine: Galen in the Roman Empire*, (Oxford University Press, 2013), 112.

³⁷ Galen, *Anat. Admin.* 7.14

This next section hopes to complicate the normal depiction of medical knowledge, to demonstrate how widely these various knowledges and practices travelled across different social strata. Non-elite men, women, and enslaved peoples serve as examples of those who were not elite men, but still had dealing and shared knowledge with the elite men. This is not to say that all knowledge was equally respected or attributed across the social stratifications, but instead shows that ancient healers themselves were aware of and engaged in the plural forms of healing.

Herbalists as Non-Elite Men

Theophrastus, who wrote many works that focused on collating information in the early 3rd century BCE, frequently does not specify where he received information. Some have speculated that the texts he compiled were mostly based on older texts written by others. For example, the text that is most relevant to health, the *Historia Plantarum*, has been claimed to be based on the work of someone like Diocles of Carystos, a known physician.³⁸ In this work Theophrastus collates information on plants, ranging from how to care for plants to the uses plants have, with a section dedicated to medicinal plants. There is no evidence that Theophrastus himself worked directly with plants, medicinal or otherwise, but he does hold an interest in them as a means of categorizing them. I contend that part of his work in categorizing and gaining a complete picture of these plants

³⁸ John Scarborough, "Theophrastus on Herbals and Herbal Remedies", *Journal of the History of Biology* vol.11 no. 2 (1978), 355.

involves obtaining some knowledge from non-physicians, but instead people who hold knowledge in other fields like pharmacology and “root-cutting.”

There is some debate about whether or not book 9 of *Historia Plantarum*, the section in which medicinal plants are addressed, was actually composed and written by Theophrastus, but seems to be generally accepted as his work.³⁹ In addition, even if it is not written by Theophrastus, there are important references to those who are not recorded as frequently as physicians, but still have important impacts in the world of ancient healing, namely “οἱ φαρμακοπῶλαι and οἱ ῥιζοτόμοι”, or pharmacists and root-cutters.⁴⁰ They also give us an opinion about how these pharmacists and root-cutters were viewed by those who dabbled in medical research (but did not practice medicine or healing directly).

Pharmacists and root-cutters would have been directly involved in the production and collection of medical materials. Theophrastus makes it clear that pharmacists and root-cutters hold knowledge about these medical materials, but he does seem to limit their knowledge to the gathering of these materials as opposed to their application. He credits them after a fairly lengthy section that already covered some herbal and medicinal properties: “And yet the pharmacists and the root-cutters equally say as many fitting things also exaggerating [as many things].”⁴¹ Theophrastus here seems to show some knowledge of what pharmacists and root-cutters recommend, but it is unclear if he spoke

³⁹ John Scarborough, “Theophrastus on Herbals and Herbal Remedies” 353-385 and Benedict Einarson, “The Manuscripts of Theophrastus’ *Historia Plantarum*”, *Classical Philology*, vol. 71, no. 1 (1976), 67-76 both argue and give evidence that the work is legitimate.

⁴⁰ Theophrastus, *Historia Plantarum*, 9.8.5.

⁴¹ Theophrastus, *Historia Plantarum*, 9.8.5: “Ἐτι δὲ ὅσα οἱ φαρμακοπῶλαι καὶ οἱ ῥιζοτόμοι τὰ μὲν ἴσως οἰκείως τὰ δὲ καὶ ἐπιτραγωδοῦντες λέγουσι.

to such people directly or received the information indirectly from a different source, like a written work or word of mouth. However, the commentary he makes to discuss the pharmacists and root-cutters works to undermine their authority and knowledge in regard to the very materials they work with.

The claim that these specialists exaggerate some information seems fairly unfounded, especially since there is no clear basis or explanation for how Theophrastus decides which claims are fitting and which are exaggerated. Only the fitting claims are justified while the exaggerated claims are written off, described as “fictitious and far off.”⁴² While the basis of Theophrastus’ doubts is not clear, he obviously values his own basis of fact over the experiential knowledge of the pharmacists and particularly the root-cutters.

For example, one of the pieces of advice that is written off involves cutting peonies at night, where root-cutters otherwise emphasized the potential of a woodpecker seeing the root-cutter and risk having their eyes pecked out or experiencing a *prolapsus ani*⁴³. It is not my concern to either validate or invalidate the knowledge associated with the root-cutters, but to me it is also easily recognizable that this was potentially rooted in experiential knowledge, that someone had had their eyes pecked out or had a prolapsed anus while cutting peonies in the daytime, and that either way Theophrastus was discounting this knowledge without a given reason. There are other so called “far off”

⁴² Theophrastus, *Historia Plantarum*, 9.8.5: ἀλλὰ τὰ τοιαῦτα ὥσπερ ἐπίθετα καὶ πόρρωθεν

⁴³ Theophrastus, *Historia Plantarum*, 9.8.6: οἷον τὴν παιωνίαν, οἱ δὲ γλυκυσίδην καλοῦσι, νύκτωρ κελεύουσιν ὀρύττειν· ἐὰν γὰρ ἡμέρας καὶ ὀφθῆ τις ὑπὸ δρυοκολάπτου τὸν μὲν καρπὸν ἀπολέγων κινδυνεύειν τοῖς ὀφθαλμοῖς, τὴν δὲ ρίζαν τέμων ἐκτίπτειν τὴν ἔδραν.

ideas, like how to cut a mandrake, which involves various rituals to perform while the mandrake is being cut, such as drawing three circles around the mandrake with a sword and to cut it while looking west and “to dance around the rest in a circle and say as many things as possible about the things of Aphrodite.”⁴⁴ I use the word ritual here in the loosest meaning of the word, pertaining only to a set of inscribed or recommended actions that are done repeatedly as associated with a specific event, and without religious connotation. Although there is some potential religious connotation here with the mention of *ἀφροδισίων*, “the things of Aphrodite”, it is not necessarily clear what the connection is. Yet, both of these are rejected by Theophrastus as being “fictitious.”⁴⁵

It is however of note that Theophrastus does still include this information in his cataloging of medicinal knowledge and plants, and even ends the passage saying, “There are no styles of root-cutting except those which we have said.”⁴⁶ This seems to somewhat indicate that Theophrastus is interested in providing a full catalog of what can be said about these plants, whether or not he thinks that these details are true or “fictitious.” Either way, he intersperses his commentary and thereby undermines the practices of these root-cutters, despite Theophrastus not being involved in the production of drugs himself. Despite his hesitation towards the practices of the root-cutters he does seem to depict at

⁴⁴ Theophrastus, *Historia Plantarum*, 9.8.8: περιγράφειν δὲ καὶ τὸν μανδραγόραν εἰς τρεῖς ξίφει, τέμνειν δὲ πρὸς ἐσπέραν βλέποντα. τὸν δ' ἕτερον κύκλῳ περιορχεῖσθαι καὶ λέγειν ὡς πλεῖστα περὶ ἀφροδισίων.

⁴⁵ This refrain is repeated at the end of the section detailing methods of root-cutting, however it should be noted that the word used “ἐπιθέτοζ” is specifically marked out in the LSJ for its usage in this passage, as it normally means additional, not fictitious. This seems to have been pulled from context of the passage as an antonym to the “ἀληθινός” meaning true. However, there is the potential that Theophrastus does not necessarily mean these things are fictitious (and by antonymic definition false) but instead are just unnecessary or additional practices.

⁴⁶ Theophrastus, *Historia Plantarum*, 9.8.8: τρόποι δ' οὐκ εἰσὶ τῶν ῥιζοτομιῶν πλὴν οὓς εἵπομεν.

least some direct knowledge of them, indicating that this information was of interest to elites and there was some means of interaction that would have allowed elites to encounter this non-elite knowledge base.

Other elite writers show no knowledge of popular uses of herbs. Pliny the Elder, writing later, in the first century CE, laments the lack of knowledge of herbs, “But the reason why more herbs are not familiar is because experience of them is confined to illiterate country-folk, who form the only class living among them; moreover nobody cares to look for them when crowds of medical men are to be met everywhere.”⁴⁷ Pliny here indicates that non-elites are those who hold knowledge of roots and herbs but also that there is a barrier between elite and non-elite knowledge.

No longer is suspicion of “superstitious” practices the problem in elites using non-elite knowledge, as Pliny presents an actual barrier between the two groups. Barriers of knowledge gives clear evidence that elite and non-elite medical knowledge were not guaranteed to interact with one another. Theophrastus’ knowledge therefore is one of the important instances in which that interaction had happened. Secondly, this gives us some indication for how knowledge transmission might have happened, in that Pliny is primarily focused on the fact that those who hold the knowledge are *ignari litterarum* and therefore none of the knowledge can be presumed to be in books and book culture, with which Pliny was most familiar with. Pliny’s lamenting about the lack of written knowledge could give some weight to Scarborough’s work which paints Theophrastus as

⁴⁷ Pliny, *Naturalis Historia*, 25.6, trans. W.H.S Jones and A.C. Andrews (1938): sed quare non plures noscantur causa est quod eas agrestes litterarumque ignari experiuntur, ut qui soli inter illas vivant, praeterea securitas quarendi obiva medicorum turba.

someone who was visiting root-cutters and pharmacologists in the market and learning from them directly.⁴⁸ It is also possible that the differences in both time and region lead to different interactions between elite and non-elite medicine.

Only a little bit later in *Naturalis Historia*, Pliny seems to express his anger further at the lack of herbal knowledge and attributes blame to the illiterate non-elite country-folk: “The most disgraceful reason for this scanty knowledge is that even those who possess it refuse to teach it, just as though they would themselves lose what they have imparted to others.”⁴⁹ Pliny’s accusation here does seem to imply that he (or at least someone close to him) had tried to obtain knowledge from these herbalists but had failed, with the onus on the herbalists, not Pliny. The herbalists’ refusal does suggest that either the dynamics between elite and non-elite healers in imperial Rome are very different from early Greece or that these particular healers saw it as advantageous to keep some knowledge as a trade secret.

Although Pliny may have failed in his attempt at gaining knowledge from non-elite specialists, Theophrastus’ recordings of the root-cutters demonstrate that this was not always the case, and that important medical information was exchanged between the elite and non-elite. Furthermore, Theophrastus’ recordings elucidate the fact that despite the public demonstrations and book culture of the elite, knowledge did not always travel down but could in fact travel up, even if that knowledge came with reservations and judgment as in the case of Theophrastus.

⁴⁸ Scarborough, “Theophrastus on Herbals and Herbal Remedies,” 355 .

⁴⁹ Pliny, *Naturalis Historia*, 25.6, trans. W.H.S Jones and A.C. Andrews (1938): turpissima causa raritatis quod etiam qui sciunt demonstrare nolunt, tamquam ipsis peritulum sit quod tradiderunt aliiis.

Women and Healing

There are many intersections which can be discussed in terms of who was able to participate in medicine and healing; however, most of these discussions are centered around men and the different social positions they occupy. Women however provide an interesting case study of various intersections between healing and social statuses. While the status of women varied greatly depending on the time and place in the ancient Mediterranean, women were also still always relegated to a less visible position in this world. Women were often associated with their status in the household and how they cared for and participated in their household and were often invisible in recordings of public life. However, there are instances in which women were required to work outside the household or serve in the household of another family, these women, although perhaps seen as living contrary to the ideal life of an ancient woman, give us some insight into the lives of women.

Healing served as one such instance in which women were able to move beyond their personal households and engage in a wider community of healing. Although this sphere seems to have also been limited often to other women, there are instances in which women also appear to enter a more general public role regarding their healing, demonstrating some further plurality for both the practice and theory of healing. It also becomes clear that among women there was also plurality in their practice, and the theory and application of this healing operated on a spectrum somewhat parallel to that of men.

Since women were most often associated with the household, especially in a place such as Classical Athens, from which there is much evidence, it becomes obvious that in

many places the exclusion of women from the public sphere was itself an ideal.⁵⁰ Women who were employed and worked beyond their own household were rare, such work was not often a celebrated part of a woman's life. As a result, there is sparse evidence in terms of women who were employed and worked as healers, although some evidence is found in the form of funerary epigraphy. Although the thrust of this work will focus on the Hellenistic period and later, there are a few exceptional pieces of evidence that are worth some note from the Classical period.

It is first important to point out that many women who were involved in healing and medical care were addressed by a few names in Greek: *τίθη*, *τροφός*, and *μαῖα*, referring to wet-nurses, nurses, and midwives respectively. In all three instances, these women seem to be generally healing in a space that would have been limited to caring either for women's health or caring for and rearing children, a duty that was seen to be part of the classical women's sphere of influence. Additionally, according to Kosmopoulou, these women were of a lower status in their respective worlds, and often evidence points to the fact that they would have been foreigners or enslaved (or even enslaved foreigners).⁵¹ The evidence of enslaved and freed women healers is mostly confirmed by Laes as well, who uses epigraphical evidence to point out that many

⁵⁰ Lin Foxhall, *Studying Gender in Classical Antiquity* (Cambridge: Cambridge University Press, 2013), 115-116. Foxhall argues that domestic spaces are traditionally viewed as being spaces gendered for women, and while this view is over-simplistic, because men indeed spend time within the domestic space, in general women did indeed have more freedom in this private domestic sphere than they would in public spheres. Foxhall does also argue that the private spheres and households should be expanded to include private spaces beyond the physical home as well, such as private agricultural fields.

⁵¹ Angeliki Kosmopoulou, "Working Women: Female Professionals on Classical Attic Gravestones", 286.

midwives were of enslaved status or origin, especially in the west.⁵² There does also appear to be that Classical Greece has some exception to lower status midwives, as there is evidence for a few free women who practiced midwifery.⁵³

One such remarkable and exceptional case of a classical midwife is Phanostrate, a midwife identified by her specialized funerary dedication which specifically names her as a “μαῖα καὶ ἰατρός” or a “midwife and doctor”.⁵⁴ Even more notably, while the title of midwife is normal, the double title including doctor seems unusual, especially at a period so early. In addition, it is of note that the use of the word “doctor” here is given in the masculine form, and not modified to the feminine form. While there are other women who are referred to as doctor in the feminine form, ἰατρίνη, there does not seem to be another instance in which a woman is referred to as a doctor in the masculine form of the word.⁵⁵

There seems to be two general theories that involve women who hold the title of “doctor”. Either the use of the word doctor here illustrates a hierarchical connotation and associates that woman with a greater claim to medical knowledge or skill limited to the women’s sphere or someone like Phanostrate had some additional training that replicated healing knowledge more akin to that of a traditional male doctor. Samama specifically indicates that this naming of Phanostrate and the masculine form of the word is due to the very early use of a woman being identified as a doctor, and it was therefore before the

⁵² Christian Laes, “Midwives in Greek Inscriptions in Hellenistic and Roman Antiquity” in *Zeitschrift für Papyrologie und Epigraphik*, vol. 175 (2011), 156.

⁵³ Laes, “Midwives in Greek Inscriptions in Hellenistic and Roman Antiquity,” 156-157.

⁵⁴ Samama, 110.

⁵⁵ Samama, 110.

feminine form of the word was developed or in use.⁵⁶ Either way, Phanostrate, although exceptional, gives us a clear indication of a woman who was able to move outside of the normal women's sphere when it came to medical practice, whether that was by skill or generalized medical knowledge is unclear.

Despite the seemingly separate worlds that gender dictated in ancient medicine, there are important moments when it becomes clear that men and women would have interacted either directly or indirectly to transmit medical knowledge. The exchange across gender boundaries is important for a couple of reasons; the first is because it demonstrates the inherent problem in attempting to study the world of medicine and healing while ignoring the contributions of women. As has been discussed above, women were largely relegated to the household, whether it was their own or that of others, yet this does not exclude them from healing; and therefore, although there is an imbalance in the ancient world in representations of healing, it would be disingenuous and irresponsible to ignore such women who were probably responsible for a large population caring for other women and children. In addition, these exchanges very clearly demonstrate that the depictions of women and men as occupying separate worlds are overblown, even if it was the desired standard in the ancient world.

There are also noticeable exceptions in which it is clear that women have more mobility, agency, and contribution to the medical world. It cannot be overstated that the evidence for such figures is scant, but important in creating a more holistic picture for the activity of women and healing. One such exception can be seen in Antiochis of Tlos

⁵⁶ Samama, 100, footnote 6.

living in the first century BCE, who we hear from in one of the clearest examples of self-representation through a surviving statue base:

Ἀντιοχίς Διοδότου Τλωίς, μαρτυρηθεῖσα ὑπὸ τῆς Τλωέων βουλῆς καὶ τοῦ δήμου ἐπὶ τῇ περὶ τὴν ἰατρικὴν τέχνην ἐνπειρία, ἔστησεν τὸν ἀνδριάντα ἑαυτῆς.

Antiochis of Tlos, daughter of Diadotos, witnessed by the council and people of Tlos for her achievement in the medical art, erected this statue of herself.⁵⁷

Antiochis, an extraordinary exception among women, as she seems to be mostly likely an elite woman practicing medicine, exemplified by her ability to afford and erect her own statue. Noticeably, Antiochis is witnessed or testified by the political council, which would have been populated by men. The verb used, μαρτυρέω, also seems to provide a strong implication for her relationship to and status affirmed by the council of Tlos, as it marks out that they bore witness or testified and gave evidence to the skill of Antiochis. This honorary does not appear to be a passing congratulations but a larger comment on Antiochis' contributions to the community of Tlos through healing. It is then not without the realm of possibilities to believe that Antiochis might have been involved in the treatment of men, not just women, again demonstrating the reach of women in healing, even if her status as an elite might make this more possible. While Antiochis and Phanistrate are both exceptional they are also not the only cases for women achieving medical recognition and potentially working with men, as evidenced by a few other women who are either referred to as “doctors” or *iatrai*.⁵⁸ However, overall, this does

⁵⁷ Samama, no. 280, 389.

⁵⁸ For another example of a woman marked as a doctor see: SEG 61.494: ἀνδρῶν ἰητήρ, μαιᾶ δὲ θελυτέρων

seem to be rare as reserved for few, while most women continued to work in healing directed at women only.

Although most women worked exclusively on healing with other women, this does not mean that they only engaged intellectually with other women. Galen, as one of the most renowned and important figures in the history of ancient medicine, gives important brief insights into his own engagement with women. These brief mentions in Galen's own work demonstrates that Galen seems to have had a working relationship with some midwives and was perhaps in conversation with them regarding healing. Relationships with midwives would make sense as Galen himself seems to report that he did not often see women when it came to topics such as childbirth and pregnancy, and instead Galen would only be called in when there was an emergency that a midwife was not seen capable of handling.⁵⁹ Yet, that does not mean that he did not study the medicine of women or engage with those who specialized in women's medicine and healing.

Galen specifically makes mention in his *Books of my Own Composition* when discussing books that he had written, "one was a tiny work on *The dissection of the womb*... [this] had been given to a certain midwife..."⁶⁰ Here we have evidence that not only is Galen theoretically researching and learning about the anatomy of women, but he is not keeping this information for himself or other *iatroi*, but instead he is passing this knowledge along to those who would probably be more engaged with the practice of women's health, midwives. It is perhaps also worth mentioning that he is not making

⁵⁹ Susan Mattern, *Galen and the Rhetoric of Healing*, (Baltimore: Johns Hopkins University Press, 2008), 145.

⁶⁰ Peter Singer, *Selected Works of Galen*, (Oxford: Oxford University Press, 1997), 7.

mention of an *ιατρίνη* but a *μαῖα*. As the common theory is that a midwife would have been a generally lesser practitioner, either because of more specialized practice or hierarchical claims associated with a traditionally male job, it is more striking that Galen is engaged with and has working relationships with midwives.

Enslavement, Healing, and Experimentation

Slavery was a common practice throughout Greco-Roman history, that engaged with the same ethnic and gender tensions that are mimicked elsewhere in society. However, slaves encapsulated an interesting threefold experience in how they contributed to medicine. One of the most obvious places in which slaves contributed to medicine was in practicing. As will be outlined, there are more than a few reports of slaves being trained in medicine and acting as medical practitioners for their households (a valuable commodity). Secondly, slaves were also seemingly used as aids for medicine and healing, while not being practitioners in the normal sense, i.e. providing knowledge in the form of diagnoses and prescriptions, their bodies were used for healing. Third, slaves were also used in the production of medical knowledge, often in experimentation that was to the detriment of the slaves themselves, such as being used to test poisons.

While slavery does not have the same connotations as the modern world, and the structures of slavery are much different in the ancient Mediterranean context, their participation and use in medicine helps reveal some of the complexities inherent in ancient Mediterranean slavery. It demonstrates the varied experiences of slaves while also hinting at the different levels of agency (or lack of agency) that was available to

those enslaved. Another part that is unclear in this depiction of slavery is whether all types of participation in medicine (an inherently vague word chosen to show the differences in agency) can be depicted on one body. It is possible that there are different levels of agency experienced by different slaves. It may be that the slave who diagnoses, is not necessarily the same slave expected to use their body for healing. It does become clear, though, that in all instances the agency of enslaved peoples is violated and minimized through various healing practices.

Agency for lower status people, especially slaves, has been studied extensively, particularly in relation to the Roman empire. Some narratives, especially older scholarship, describe those who lived in an enslaved status in the ancient world describe it in kind terms, making essentialist arguments that slavery in the ancient Mediterranean is somehow a nicer form of slavery than other more modern examples. Forbes, while recounting the education and training of slaves, makes mention of some harsh treatment but also details, “that most public slaves, factory workers, and domestics were handled with fairness or even leniency”⁶¹ and that “the heartlessness of Cato is counterbalanced by the kindness of Pliny.”⁶² Authors like Forbes make claims towards evidence that some people chose to keep an enslaved status within a certain family, or that there were laws that protected enslaved people from certain harms. While not all historiography on slavery follows the same tone as Forbes, it still represents an important part of the scholarship that requires reframing. Such arguments fail to consider however both the

⁶¹ Clarence A. Forbes, “Supplementary Paper: The Education and Training of Slaves in Antiquity,” *Transactions and Proceedings of the American Philological Association* 86 (1955): 321, <https://doi.org/10.2307/283628>.

⁶² Forbes, “Supplementary Paper: The Education and Training of Slaves in Antiquity”, 322.

very real loss of agency experienced by the enslaved peoples and the subsequent harm individuals endured even if it was “counterbalanced.”

First, it is important to recognize that those who were enslaved and used for either healing experimentation or treatment are important in not only the history of medicine broadly but also Mediterranean medicine. Depictions of slaves who are either aiding healers or acting as healers are frequent and important, even if they did not have the same perception among other ancient peoples. The commonplace use of slaves as healers can be clearly demonstrated in a couple of instances in which Galen describes using slaves in his own medical practice.

One instance, Galen describes in *Hygiene*, in which he is calling for the practices of purging and mentions, “And they are able to make such provision for themselves during those days on which there is some public festival, when they free themselves from the services of a slave.”⁶³ This seemingly implies that people are capable of purging themselves even when the a slave is not available to do so, thereby telling us that normally it would be within a normal duty of a slave to provide this service. An important detail here is that Galen does not specify that it must be done by a slave who is a healer or physician, but any slave is seemingly capable (just as any non-enslaved person is). From this point we can infer that slaves might have overseen some normal habits of care for others within the household, such as aiding in purging.

⁶³ Galen, *Hygiene*, 415K, translated and edited by Ian Johnston: και δύνανται γε τὴν τοιαύτην ἑαυτῶν πρόνοιαν ποιῆσθαι κατὰ τὰς ἡμέρας ἐκείνας, ἐν αἷς ἑορτὴ τίς ἐστι δημοτελῆς ἐλευθεροῦσα τῆς δουλικῆς ὑπηρεσίας αὐτοῦς.

Galen extends this idea again in reference to healing the abdomen, writing, “Among those things applied externally to the stomach, there is a young slave, well-fleshed, lying beside [the patient] so as to be in constant contact with the epigastrium. Some also have little puppies in good condition for this same use, not only in attending to a sick person, but also for those who are healthy.”⁶⁴ Again this aid in healing seems to be subsumed within the regular duties of a slave; it apparently does not require knowledge like purging might. Although it does not require knowledge (apparently it requires so little knowledge puppies are also acceptable replacements for slaves) it still seems to be within a regular expectation of how a slave might enable an owner or someone else with a healing regimen prescribed by a doctor. Galen mentions these details casually, demonstrating that both are intended as regular practices for enslaved bodies to engage in, but they would also therefore have been important household staples for healing when used in this way.

In addition, slaves are not used only for their bodies, but for their knowledge as well. Yet even slaves that are used for their knowledge are still treated as slaves. Slaves in both cases are limited in their autonomy and agency. While other healers and free people are able to move and make choices without considering the behest of others, those who are enslaved are often in the background and unconsidered in the textual evidence. This can be seen in Suetonius’ *Life of Caligula*, in which he details the early life of the future emperor, specifically recording a letter in Gaius’ father wrote, “Yesterday I arranged...to

⁶⁴ Galen, *Method of Medicine VII*, 502K, translated and edited by Ian Johnston and G.H.R. Horsley: ἐργάζεται δὲ τοῦτο κατὰ μὲν τὴν διαίταν ἅμα τοῖς εἰρημένοις ἔμπροσθεν οἶνος μάλιστα· τῶν δ’ ἐξῶθεν τῆ γαστρὶ προσφερομένων εὐσαρκῶν παιδίων συγκοιμώμενον, ὡς ψάειν ἀεὶ τῶν κατ’ ἐπιγάστριον.

bring your boy Gaius...I send with him besides one of my slaves who is a physician..."⁶⁵

While this is undoubtedly an important member of the household unit, as the slave is seemingly tasked with caring for the child, the namelessness associated with the slave also how the slave is treated, namely they are important more for their knowledge and position as a healer or physician. Significantly, this is not an elite healer that is tasked with caring for someone of the imperial family line but is instead an enslaved person who is recognized as a physician. While there are some indications that enslaved healers may have received training through apprenticeships, there is also some evidence of schools that slaves could be sent to for acquiring training.⁶⁶ In addition, scholars recognize that some slaves may have already been doctors or trained in medicine prior to their enslavement.⁶⁷ Without knowing the training of this particular slave, it can be said that there is still recognition and trust in the slave's healing knowledge and competence.

As early as Plato there are references to slave who act as doctors, especially for others who also enslaved. Although, Plato does not seem to inspire the same trust in enslaved healers as the Roman imperial family did, as he sees them as only fit for serving other enslaved peoples and finds their methods improper compared to free doctors.⁶⁸ More slaves were trained in healing in the Roman Empire, as can be seen by the rescript of Domitian which removed privileges from those who trained slaves in medicine.⁶⁹ The rescript expressing concerns that too many slaves were being educated in a profession

⁶⁵ Suetonius, *Gaius Caligula*, 8.4: *Puerum Gaium XV. Kal. Iun. si dii volent, ut ducerent Talarius et Asillius, heri cum iis constitui. Mitto praeterea cum eo ex servis meis medicum.*

⁶⁶ Forbes, "Supplementary Paper: The Education and Training of Slaves in Antiquity", 328 and 334.

⁶⁷ Forbes, "Supplementary Paper: The Education and Training of Slaves in Antiquity", 322.

⁶⁸ Plato, *Leges*, 4.720.

⁶⁹ Forbes, "Supplementary Paper: The Education and Training of Slaves in Antiquity", 349.

that was only intended for “freeborn young men” and were not concerned actually with healing, but masters wanting to profit off of their slaves.⁷⁰ It should be noted however that this was not only a concern that was limited to the education of enslaved peoples, as later Galen would loudly protest against Thessalus, a Methodist teacher known for claiming to teach medicine in just six months and a person Galen perceived as being too low-born to engage in elite debates.⁷¹

Despite the judgment there may have been towards enslaved healers, there are also obvious instances in which there is collaboration and communication between enslaved and free practitioners, just as there is collaboration among elite and non-elite practitioners. In addition, there is also communication between freed or manumitted slaves and free elite men. One such famous example is Pompeius Lenaeus, a freedman of Pompey the Great (or Pompeius Magnus) who is recorded by Pliny as the first Roman author to write on medicinal botany, as he had great access to the works of Mithridates, a king legendary in his study of medicine and other subjects.⁷² Pliny regards Pompeius Lenaeus for translating Mithridates’ works and contributing to the Roman knowledge base of medicine and healing. Although there is no direct communication between Pliny and Pompeius Lenaeus, Pliny is necessarily relying on Lenaeus’ work to some extent in his own encyclopedic writing of the *Naturalis Historia*. Pliny also would have esteemed Pompeius Leneaus’ literacy, as he now was able to transmit some knowledge that Pliny

⁷⁰ Forbes, “Supplementary Paper: The Education and Training of Slaves in Antiquity”, 349.

⁷¹ Nutton, 196. Galen also believed that Thessalus was unqualified to speak in public debates or exhibitions, making claims to him being both low born and effeminate, see von Staden, “Anatomy as Rhetoric: Galen on Dissection and Persuasion” in *Journal of the History of Medicine and Allied Sciences* vol. 50 (1995), 61.

⁷² Pliny, *Naturalis Historia*, 24.5

largely associated with illiterate country-folk as described above. Pompeius Lenaeus does have a higher status, evidenced through the memory of his name. Meaningfully, he is not enslaved at the time of his recordings or in his memory, although he does still seem to be in a diminished social stratum because the status of his previous enslavement is attached to his memory.

Manumission while it would have afforded more agency, still seems to have come both with social remembrance of having been enslaved and sometimes even agreements of further labor. Noticeably however, this labor could come in the form of healing, as is preserved in a temple inscription in a temple of Apollo from the second century BCE. This inscription details a kind of contract of manumission between a slave and an owner, with the temple acting as a recording of the contract and the gods serving as witness and guarantor. In this inscription, a healer or doctor, named Dionysus, is manumitting his slave, named as Damon, but it comes with a stipulation⁷³:

Εἰ δέ χρείαν ἔχοι Διονύσιος, συνιατρεύετω Δάμων μετ' αὐτοῦ ἔτη πέντε λαμβάνων τὰ ἐν τὰν τροφὰν πάντα καὶ ἐνδυδισκόμενος καὶ στρώματα λαμβάνων.

If Dionysus has need, Damon will practice medicine together with him for five years bringing all things for nourishment and dressing and bringing things for sleep.⁷⁴

The inscription also goes on to stipulate that Damon will be in charge of certain things in this agreement, like bringing his own equipment and fulfilling his own living expenses.

This passage and agreement are particularly interesting because of the clear language

⁷³ Samama, 160: earlier in the inscription records the manumission that Dionysus conducts with his brother Politas: ...Διονύσιος καὶ Πολίτας οἱ Ἀσάνδρου τῶι Πυθίωι σῶμα ἀνδρεῖον ὧι ὄνομα Δάμων, τιμᾶς ἀργυρίου μ[ν]ᾶν ἕξ, καθὼς ἐπίστευσε Δάμων τῶι θεῶι τὰν ὀνάν, ἐφ' ὅτῳ ἐλεύθερος εἶμεν καὶ ἀνέραπτο[ς] ἀπὸ πάντων τὸμ πάντα χρόνον...

⁷⁴ Samama, 160: Εἰ δε χρείαν ἔχοι Διονυσιος, συνατρεύετω Δάμων μετ' αὐτοῦ ἔτη πέντε

used to describe the position of Damon, who is to “συνιατρεύετω” or “doctor together/alongside” Damon. The language here makes it clear that Damon is being trusted to serve as a doctor equally to Dionysus. The inscription does not make it clear on whether Damon was trained in medicine prior to his enslavement or was perhaps trained at the apprenticeship or expense of Dionysus.⁷⁵ However, the sense that they are working together does demonstrate how a freed person might work alongside others after enslavement and that their knowledge and skill was valued. Damon again seems to be a further example of the kind of limited upward mobility that could come with manumission for the formerly enslaved, and he exits enslavement with connections and cooperation with another doctor.

Through the evidence it then becomes clear that enslaved peoples practiced healing through ancient Mediterranean history, even if the participation varied on both the region and period. Enslaved peoples who had been trained in healing or claimed healing knowledge were therefore both profitable to owners and important for managing household health, even if that health meant only the health of other slaves. It is also clear that for elite healers, slaves were merely assistants and not to be seen as people with their own knowledge, such as Galen’s use for the bodies of slaves and tachygraphers who took medical notes. Yet, as one moved lower on the spectrum of social status, it seems there is greater collaboration between non-elite free men and enslaved healers, such as the relationship between Dionysus and Damon. Furthermore, manumission could provide one with a higher social status that would also allow one to move up as a healer and

⁷⁵ Samama, 160, footnote 36.

holder of knowledge; Damon becomes an assistant and Pompeius Leneaus post-manumission becomes someone worth naming in citations.

While all slaves did not have agency, either legally or in the way they moved through the world, not all enslaved peoples engaged in medicine in the same way, and it is necessary to look at those enslaved peoples who were used as means for testing and experimentation. Not only does this demonstrate the wide spectrum of an enslaved experience in the ancient Mediterranean but shows how medical knowledge was gained and at whose expense.

Agency in Dissection and Vivisection

One essential way to view how people can move through any society is through the agency they are able to embody. Agency helps illuminate the types of decisions one can make as well as the kind of limitations they may have, especially as the state defines and sanctions who has agency and to what extent. I argue that those who had limited agency, including both slaves and prisoners, were essential to the history of ancient Mediterranean medicine even when they were not actively healing. Instead, some peoples without agency were used for testing and experimentation, clearly demonstrating the spectrum of how healing and medicine affected the enslaved within the ancient Mediterranean.

Slave status in the ancient Mediterranean was normal, commonplace, and people could be subject to enslavement by a variety of means. The most common depiction of how people entered into slavery is through the toils of war, in which those who were

defeated were declared the property of those who had won.⁷⁶ The same can also be said of those who would become prisoners, although, as Ducrey points out, this was never really the intention of armies based on military strategies and practices.⁷⁷ Rather, taking prisoners seems to have instead been a much rarer practice, as it was more economically advantageous to sell the defeated population into slavery rather than take them as prisoners. Imprisonment itself was then one means in which one could be subjected into slavery.⁷⁸

Long-term incarceration was not a normal practice in the ancient Mediterranean; instead, imprisonment was brief and led to a few different paths, including enslavement, being held as hostage, and awaiting a sentencing to death. Any punishments that were intended to be long term, would not lead to long-term incarceration in a prison but an exile from the relative state or polis. Yet, a high proportion of defeated armies that were kept alive would have likely become slaves to the winning army.⁷⁹ Enslavement and imprisonment were two practices that were clearly entwined and shared much overlap. Both enslavement and imprisonment can be characterized by their losses of agency and citizenship. For the purposes of this paper, imprisonment will be considered a subset of

⁷⁶ Pierre Ducrey, "Prisonniers de guerre en Grèce antique 1968-1999" in *Pallas*, vol. 55 (1999), 15.

⁷⁷ Ducrey, "Prisonniers de guerre en Grèce antique 1968-1999", 13.

⁷⁸ Ducrey, "Prisonniers de guerre en Grèce antique 1968-1999", 17. Aside from the economics, it might in some cases also be more politically advantageous to use the people who had been defeated as hostages or easier in some cases to massacre the army.

⁷⁹ David Braund, "The Slave Supply in Classical Greece" in *The Cambridge World History of Slavery, Vol. I* (Cambridge: Cambridge University Press, 2011), 116. Braund does clarify that when Greeks warred with other Greeks, enslavement was not always guaranteed, but was a very common practice when Greeks warred with "barbarians." See also Scheidel in the same volume for the slave supply in Rome.

enslavement status, as it led to many of the same losses of rights and was often a path to enslavement.

Not all slaves were the result of war, some enslaved peoples also entered slavery via birth, in which they were born to already enslaved people and became slaves themselves.⁸⁰ In the case of Rome, this meant that a slave could be considered Roman, even if they were not legally considered to be a person and were considered property or things, *res*.⁸¹ In contrast to slaves, many prisoners were obtained through the [mis]fortunes of war, as prisoners of another state and therefore had no citizen status or community ties and were therefore without any rights. Other prisoners were those who had lost their legal status in some way, often as the result of a crime. It is then these people who while they exist within the prisoner status, lose arguably more status than enslaved peoples, especially as they do not have the same rights some slaves were granted in the history of the Mediterranean.⁸²

The lack of prisoners' rights can be clearly seen when one looks to the history of dissection and vivisection in the ancient Mediterranean. The subject of dissection has been one of much debate, both today about its prevalence in the past, and in the antiquity as a moral debate. Many ancient scholars interested in medicine and anatomy saw

⁸⁰ Walter Scheidel, "The Roman Slave Supply" in *The Cambridge World History of Slavery, Vol. I* (Cambridge: Cambridge University Press, 2011), 293. Scheidel tries to model the different possibilities on whether natural birth growth or captives from war led to a greater slave supply in Rome but also concludes that both were significant contributors to the population of slaves within Rome.

⁸¹ Jane F. Gardner, "Slavery and Roman Law" in *The Cambridge World History of Slavery, Vol. I* (Cambridge: Cambridge University Press, 2011), 415.

⁸² *Historia Augusta. Hadrian*, 18. The HA claims that Hadrian banned masters from killing their slaves and put tighter restrictions on how torture could be used against slaves in the case of a murder of a master (saying that only slaves who were near the murder could be examined with the use of torture as opposed to the entire household).

dissection (and sometimes vivisection) as a useful tool in the training of doctors, this becomes especially clear in some medical school divisions as some schools find it more necessary than others, such as the Rationalists.⁸³ Others proclaimed that human dissection was not a necessary practice because one had access to animals and necessary information could be gleaned through animal dissection and practical experience with the human body. The moral quandary of the necessity of the practices of vivisection and dissection remains at the forefront of many sources. Dissection itself seems to have been a very rare practice that was only practiced in some areas in the Hellenistic era. Vivisection was even more contentious as many seemed to find the practice abhorrent, especially when it came to human subjects. Cultural practices and religious beliefs seem to largely bar both practices as inhumane and immoral, leaving many doctors to rely on training from books, animal dissections, and practical experience through observation on patients.

The first dissection in Greco-Roman practice is attributed to Herophilos, a Hellenistic anatomist whose works are now lost but were used as a point of reference for many other ancient scholars. Herophilos seems to be posed as a kind of curiosity and singular event, with many even supposing that his human dissections were only possible because of his location. Nutton supposes that being in Alexandria around the burial practices of local Egyptians might have lessened the stigma around the dissection of the human body and thus allowed him to do so under the consideration of scholastic

⁸³ Christopher E. Cosans, "Galen's Critique of Rationalist and Empiricist Anatomy" in *Journal of the History of Biology*, vol. 30, no. 1 (1997), 36.

inquiry.⁸⁴ What is unclear is who Herophilos might have dissected. While it is not my intention to hold Herophilos to the modern moral standards of consent, it still poses an interesting question of whose body is deemed unworthy enough to be dissected? Certainly, no normal Greek or Roman citizen would choose to be dissected because of the religious implications. It is also clear that local Egyptian practices are rooted in specific ritual practices, not pure exploratory dissections, which removes a local Egyptian as a more “respectable” and “consensual” option. Furthermore, many scholars point out that there is little to no indication that Greco-Roman anatomists and doctors might have engaged with Egyptian burial practices, even as a source of information.⁸⁵

There are reports that Herophilos along with Erasistratos performed human vivisections, specifically on prisoners of the Ptolemies in Alexandria. The reports seem to come from two main sources, namely Celsus and Tertullian, both living much later than Herophilos and Erasistratos. Celsus living in the early 1st century CE reports in his encyclopedic *De Medicina*:

[According to the ‘rationalist’ physicians] it is therefore necessary to dissect the bodies of the dead and to examine their viscera and intestines. Herophilus and Erisistratus, they say, did this in the best way by far when they cut open the men who were alive, criminals out of prison, received from kings. And while breath still remained in these criminals, they inspected those parts which nature previously had concealed...⁸⁶

⁸⁴ Nutton, *Ancient Medicine*, 131.

⁸⁵ Nutton, *Ancient Medicine*, 132. Nutton also points out that practicing medicine and performing mummification for burial were separate practices in Egypt, and therefore would not have led to direct medical knowledge. Lang argues that there are some instances of interaction between Greek and Egyptian doctors in Ptolemaic Egypt, visible through the use of certain drugs and ingredients (135) and argues that any use of mummification as a justification for Greek dissection and vivisection “misunderstood the meaning and ritual of mummification” (253), which would again suggest that there was not close contact between these two groups.

⁸⁶ Celsus, *De Medicina*, prohoem 23-6. Translated by von Staden in *Herophilos: The Art of Medicine in Early Alexandria* (1989): *neminem putant his adhibere posse remedia, qui ipsas ignoret. Ergo necessarium esse incidere corpora mortuorum, eorumque viscera atque intestina scrutari; longeque optime fecisse*

G.E.R. Lloyd uses Celsus as an example to demonstrate the morality of vivisection and dissection, in which Celsus clearly shows his support for both practices, saying that dissection was necessary to understand the body and subsequently apply remedies.⁸⁷ Celsus continues by going even further than most that support dissection, suggesting that not only dissection was necessary, but that vivisection was even better than dissection, “the best way by far” or *longique optime*.

Celsus seems to show some consensus to the fact that this may not be the most acceptable approach. Celsus is specific in ensuring that in some way these men are deserving of the vivisection performed upon them. He does not need to specify who these men are that were vivisected to argue why vivisection is important to the practice of medicine, but Celsus is careful in explaining that these specific men were criminals pulled from a prison. Furthermore, Celsus justifies this even further by demonstrating that they are not only prisoners, but that Herophilos and Erasistratos had royal permission to perform this vivisection.

Celsus is also aware that his opinion on this topic is unpopular and attempts to persuade readers by making a utilitarian argument, stating “Nor is it cruel, as most people maintain, that remedies for innocent people of all times should be sought in the sacrifice of people guilty of crimes, and of only a few such people at that.”⁸⁸ The opposing opinion

Herophilum et Erasistratum, qui nocentes homines a regibus ex carcere acceptos vivos inciderint, considerarintque etiamnum spiritu remanente ea, quae natura ante clausisset...

⁸⁷ G. E. R. Lloyd, *Methods and Problems in Greek Science: Selected Papers* (Cambridge: Cambridge University Press, 1993), 356.

⁸⁸ Celsus, *De Medicina*, prohoem 23-6. Translated by von Staden in *Herophilos: The Art of Medicine in Early Alexandria* (1989): neque esse crudele, cicut plerique proponent, hominum nocentium et horum quoque paucorum suppliciis remedia populis innocentibus saeculorum omnium quaeri.

resounds in the work of Tertullian, a Christian author from the 3rd century CE, who vehemently denounces the practice of dissection and vivisection, and describes the actions of Herophilos in much different terms:

The famous Herophilos, the physician, or rather butcher, who cut up innumerable men in order to examine nature, who hated humans in order to have knowledge, explored their internal parts – but he probably did not explore all of them clearly, since death itself changes what has been alive, especially a death which is not a simple one but one which is an error in the midst of the artificial processes of dissection.⁸⁹

Many scholars have doubted whether the accusations of vivisection are true, especially saying that Tertullian is more unreliable because of his stance as a Christian attempting to disavow pagan practices. Discussions of dissections are generally more accepted in the historiography than the accusations of vivisection are, the difference here is the reasoning scholars give for why dissection occurred when it did. As discussed above, Nutton (and Longrigg) attribute these changes to some influence from Egyptian practices. Others, such as Edelstein have suggested that the change in attitude towards dissection, not vivisection, come from changes in philosophy, such as Plato's assertion that the soul was an entity separate from the body. Some have argued that much of the anatomy discussed could have been determined from animal experimentation or dissection rather than human vivisection. Others, including van Staden, author of a major work on Herophilos, have pointed out certain brain processes described could not have

⁸⁹ Tertullianus, *De Anima*, 10.4, cited by von Staden *Herophilos: The Art of Medicine in Early Alexandria* (1989): Herophilus ille medicus aut lanius, qui sexcentos exsecuit, ut naturam scrutaretur, qui hominem odiit, ut nosset, nescio an omnia interna eius liquido explorarit, ipsa morte mutante quae vixerant, et morte non simplici, sed ipsa inter atificia exsectionis errante.

been tested without access to a live human brain.⁹⁰ Since the publication of von Staden's *Herophilos: The Art of Medicine in Early Alexandria*, his arguments have been generally accepted as correct, with scholars accepting that Herophilos engaged in vivisection.

Celsus is resonant in whose body was deemed worthy for vivisection: criminals in prison. As discussed above, these people in some ways had the least agency, particularly because they were more likely destined for slavery or death. Simultaneously, they were fully in control of the kings and what the kings might have deemed their fates to be. Nutton in theorizing how this might have come to be, theorizes "as criminals, they might be thought to have forfeited their humanity and their rights and to be making, by their suffering and death, a form of expiation and compensatory contribution to the general good."⁹¹ Questions surrounding the morality of vivisection seem to be closely tied to justification for it, and one key point of the argument seems to hinge on determining and defining another person's humanity.

Judgment of someone's humanity says much about the very experiments that are being conducted on such bodies as it calls back to other points in which humans with diminished or no agency, such as slaves and prisoners, are compared to animals. Notably, both slaves and pack animals are categorized similarly in Roman law.⁹² This is obvious in Galen who compares slaves' bodies to puppies in instructions for a treatment and even

⁹⁰ James Longrigg provides a useful detailing of much of the modern historiography in his article, James Longrigg, "Anatomy in Alexandria in the Third Century B.C.," *The British Journal for the History of Science* 21, no. 4 (1988): 455–88. For van Staden see *Herophilos: The Art of Medicine in Early Alexandria* (1989).

⁹¹ Nutton, *Ancient Medicine*, 134.

⁹² Gardner, "Slavery and Roman Law", 416.

more obvious when all other vivisections and accepted dissections are performed on animals. This is not to say that slaves are fully accepted as non-human and animals only, but that there does seem to be some removal of humanity among slaves and prisoners to justify practices like dissection and vivisection. Pulleyn even argues that Galen seems uncomfortable with the killing of apes because they are too close to humans, and instead prefers pigs not only because they are less humanlike but also because they are a more familiar subject for killing in ancient Mediterranean life.⁹³

Herophilos is also not alone in accusations of using living humans as subjects for experimentation. Galen accused Mithridates, a famed Pontic king for using prisoners that were sentenced to death for experimentation in his famous tests on developing poisons and antidotes:

ὁ γάρ τοι Μιθριδάτης οὗτος, ὡσπερ και ὁ καθ' ἡμᾶς Ατταλος, ἔσπευσεν ἐμπειρίαν ἔχειν ἀπάντων σχεδὸν τῶν ἀπλῶν φαρμάκων, ὅσα τοῖς ὀλεθρίοις ἀντιτέτακται, πειράζων αὐτῶν τὰς δυνάμεις ἐπὶ πονηρῶν ἀνθρώπων, ὧν θάνατος κατέγνωστο.

For this Mithridates surely, just as also Attalos among us, he strived to have experience of nearly all of the natural drugs, as many deadly ones as he met, testing the strengths of them on wretched men, of which death had been charged.⁹⁴

⁹³ Simon Pulleyn, “Animal Experimentation in Classical Antiquity,” in *The Ethical Case Against Animal Experiments*, ed. Andrew Linzey and Claire Linzey (University of Illinois Press, 2017), 108.

⁹⁴ Galen, K XIV 2.3ff. The force of the “ἀπλῶν” is a bit unclear; it can refer to either the drugs being simple or natural. Since Mithridates was partially known for his use of herbs and interest in pharmacology, as referenced by Pompeius Lenaeus having learned his medical herbology from Mithridates, I have chosen to use natural. The “φαρμάκων” could also be translated as “poisons” but I have left it in the more neutral phrase of “drugs” since the following “ὀλεθρίοις” confirms their deadliness and would imply poisons. Translating as “drugs” helps retain some of the ambiguity that exists within the Greek while still demonstrating the intention behind the use of these particular drugs.

Here again it is the very people who have the least agency, that are suffering what seems to be state-imposed violence as kings permit use of their bodies without their consent to drastic, harmful experimentation.

Nutton argues that dissection was actually a very short practice and one that seems to have ended with Herophilos, but other scholars such as Cilliers point out evidence that dissection continued beyond this “brief experimentation.”⁹⁵ Cilliers drawing on Galen, makes clear that Galen actually recommended some students go to Alexandria so that they can witness a dissection as a means of learning, well beyond the time of Herophilos.⁹⁶ Since we know that Galen was actively engaged in animal dissection (and vivisection), and it was even used as a point of competition in public debates, it becomes clear that the dissection Galen recommends viewing must be a human dissection.

While the scant evidence points to the fact that dissection and vivisection were potential practices in the ancient Mediterranean world, they also do seem to have been limited. Rufus of Ephesus, living before Galen, seems to lament the fact that he cannot learn from a dissection and instead must teach from the surface of a slave’s body:

Ἀκούων δὴ καὶ ἀποβλέπων εἰς τὸν παῖδα τοῦτον διαμνημονεύσεις τὰ ἐπιφανῆ
πρῶτον· εἶτα ὡς χρὴ καλεῖν τὰ ἔνδον, ζῶόν τι, ὃ μάλιστα ἀνθρώπῳ ἔοικε,
διελόντες, διδάσκειν σε πειρασόμεθα· οὐδὲν γὰρ ἐμποδὼν, εἰ μὴ καὶ παντάπασι
ἔοικασιν, τὸ γοῦν κεφάλαιον ἐκάστου διδάξαι. Πάλαι δὲ γενναιότερον ἐπὶ
ἀνθρώπων ἐδίδασκον τὰ τοιαῦτα.

Listening and looking at this slave memorize the visible things first, then when it is necessary to call to the things within, we will test, dividing some animal, the

⁹⁵ Nutton, *Ancient Medicine*, 130.

⁹⁶ Louise Cilliers, “The Knowledge and Competence of Physicians in the Late Roman Empire,” in *Roman North Africa, Environment, Society and Medical Contribution* (Amsterdam University Press, 2019), 112, <https://doi.org/10.2307/j.ctvd58vbm.8>.

one most like a man, to teach you. If not alike in all ways, at least the head of each will teach. Long ago and more excellently these things were taught upon a man.⁹⁷

Rufus here settles for the fact that one must teach and learn through observation of the external body, here a body provided by a slave and through the dissection of an animal. He comments that this is not an ideal way to learn medicine but is a concession, especially to older days of an unspecified date in which one could dissect or vivisection humans, potentially in reference to Herophilos. Although Herophilos might be an outlier in his performance of a vivisection and dissection, he certainly was not the only that believed in the practice, as later elite men such as Galen, Rufus of Ephesus, and Celsus either supported Herophilos' actions or bemoaned that they themselves could not engage in such practices.

It should not be missed that enslaved bodies are still being used and experimented on, even if from a surface level like Rufus did. We cannot imagine that slaves would have the agency or ability to deny an owner the use of their body for study, another way in which their physical body would have been exploited in the confines of enslavement or imprisonment. While enslaved healers were an important part of the ecosystem of healing in the ancient world, they are often denied both their credit and knowledge in the history of medicine, especially in the ancient sources. Enslavement therefore seems to have been a barrier to both knowledge and credibility, especially in terms of interactions with elite healers, as enslaved healers and their bodies often were

⁹⁷ Rufus of Ephesus, "The Names of the Bodily Parts" in *Oeuvres de Rufus d'Ephèse : texte collationné sur les manuscrits, traduit pour la première fois en français, avec une introduction*, ed. C. Daremberg and E. Ruelle (Paris: Baillière, 1879), 134. With the use of *παῖδα* one could argue that Rufus is only referring to a boy and not to a slave, but it has generally been accepted and translated to mean a slave that is being studied. See Nutton, *Ancient Medicine*, 140.

considered more important than the knowledge they may have held. The fact that manumitted healers were either able to be cited or gain recognition and employment highlights the sliding spectrum healers operated on. Elite men did not often see enslaved healers as holders of knowledge, they worked as assistants to carry out assigned tasks, and even if they held training, it was considered poor training. Freedom therefore seems to lift the barrier to holding knowledge, and manumission could afford the same to formerly enslaved healers, like Damon and Pompeius Lenaeus.

Conclusion

Although Antiochis of Tlos will never be as prevalent in the historical record as Galen or even the historical Hippocrates, they are all equally important to the study of medicine and healing in the ancient world. Perhaps even more importantly, it is clear that Antiochis, someone who was witnessed by her polis for her skill in the healing art, was not relegated to a separate part of society, one in which only women participated as is often believed. Rather, Antiochis and others, such as the superstitious root-cutters or Damon the freedman, were all in contact, communication, and shared networks of knowledge with the same elite men who have largely excluded them from the record.

Furthermore, it is clear that enslaved and imprisoned people contributed to medicine both through the use of healing knowledge and the use of their bodies through dissection and study. Although enslaved peoples may not have been as involved in the same networks of knowledge sharing and existed on the periphery, they importantly supporting the work of healers.

Healing knowledge did not travel equally on a two-way street between these many groups, as it is clear that elites created and had access to networks and physical spaces that others were excluded from, whether it was a private library or the ability to give a public lecture. In many ways, the knowledge that does survive is only a small sampling of both what was deemed interesting and worthy by these elite men and was therefore recorded and continually transmitted in the written record. However, to give an incomplete picture of both the people and their practices is a dishonest representation of what ancient Mediterranean medicine was and instead hides surprising connections about knowledge transmission that has largely gone unrecognized and understudied. By looking at not only the history of medicine that is ignored, but also the people that are ignored it becomes clear that the demographics and practices of healing are plural, but part of that plurality is only clear because of the interactions between varied groups of healers.

There is much more work to be done in this respect, to bring to light many more names or nameless people that are still yet to be discussed. Medicine is also still much more complex than represented in this paper, and the plurality of these healers and healing practices only expands, especially when one considers aspects not mentioned here, such as healing temples, cults, and magic. While in modern terms we may categorize these terms distinctly as practices that cannot intersect and cannot engage with one another, healing in the ancient world encompasses them all.

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