

# I Introduction

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Hippocrates remains a figure shrouded in mystery. We have next to no indubitable facts about his life. Although a large number of texts attributed to Hippocrates have come down to us, we cannot be certain that any one of them was written by the historical Hippocrates. One of the most eminent historians of medicine, Philip J. van der Eijk, has recently argued that we should abandon the moniker 'Hippocratic' and simply talk about early Greek medicine, as the so-called *Hippocratic Corpus* is so diverse and contains writings from the fifth century BC to the first and second century AD. Not everybody, of course, would agree with this view, yet it shows that Hippocrates remains a hot topic of debate, which attracts an ever growing amount of scholarship.

Hippocratic studies have grown enormously since the late nineteenth century. In the early twentieth century, there was a clear focus on editing texts according to the latest philological methods. The great editorial project *Corpus Medicorum Graecorum* began in 1904 with the publication of a manuscript catalogue by Hermann Diels (1904–5). One of the questions that scholars hotly debated since antiquity is the so-called Hippocratic Question: what texts in the *Hippocratic Corpus* were written by the historical Hippocrates? Already in the nineteenth century there emerged a view that one can divide the treatises of the *Hippocratic Corpus* into Coan and Cnidian, the former more rational or characterised by prognostic, the latter more empiric and diagnostic. In the second half of the twentieth century, a number of scholars tried to discern certain Coan and Cnidian layers within individual treatises, notably by paying close attention to language and style.

The great French editor of Hippocrates, Émile Littré (1801–81), placed the treatise *On Ancient Medicine* at the beginning of his

*Complete Works*, arguing that it exemplified the outlook of the true Hippocrates: an aversion to theorisation and an emphasis on practical experience and own observation. This was a strange reversal of fortune, as Galen of Pergamum (ca. 129–216), the greatest and most influential commentator on Hippocrates, had dismissed this text as spurious. Nowadays, few scholars would say that they can confidently identify even a single treatise in the *Hippocratic Corpus* that was undoubtedly written by the historical Hippocrates. Nor do they still uphold the distinction into Coan and Cnidian treatises. Yet, an eminent Harvard historian of Greek science and medicine, Mark Schiefsky (2005), argued that *On Ancient Medicine* is our best bet, if we want to find a truly Hippocratic text, just as Littré did more than a century and a half later.

The richness and growth of Hippocratic studies can perhaps best be illustrated with a short overview of a conference series, called *Colloque Hippocratique* or *Hippocratic Colloquium* that began in 1972 in Strasburg and has since taken place every three to four years. From their inception, these were truly international and interdisciplinary meetings, with scholars coming from different countries and traditions.<sup>1</sup> The first meetings still focussed on the *Hippocratic Corpus* and its place in medical history or Hippocratic medicine more generally.<sup>2</sup> Soon, however, special topics emerged such as the history of ideas,<sup>3</sup> the Hippocratic *Epidemics*,<sup>4</sup> nosology,<sup>5</sup> philosophy,<sup>6</sup> therapy,<sup>7</sup> and the normal and pathological.<sup>8</sup> The first decade of the new millennium witnessed three colloquia with a greater English-speaking presence, focussing on the context of the *Hippocratic Corpus*,<sup>9</sup> medical education,<sup>10</sup> and the idea of the Hippocratic.<sup>11</sup> In 2012, the *Colloque Hippocratique* returned from Texas to Paris,

<sup>1</sup> See Jouanna and Zink (2014), i–iii, who reviews the history of these encounters.

<sup>2</sup> Université des sciences humaines de Strasbourg (1975); Joly (1977); Grmek and Robert (1980); López Férez (1992).

<sup>3</sup> Lasserre and Mudry (1983). <sup>4</sup> Baader and Winau (1989).

<sup>5</sup> Potter, Maloney, and Desautels (1990). <sup>6</sup> Wittern and Pellegrin (1996).

<sup>7</sup> Garofalo (1999). <sup>8</sup> Thivel and Zucker (2002). <sup>9</sup> van der Eijk (2005b).

<sup>10</sup> Horstmanshoff (2010). <sup>11</sup> Dean-Jones and Rosen (2016).

France<sup>12</sup> and in 2015 was held in Manchester, England, exploring the commentary tradition, both East and West.<sup>13</sup> The next meeting will take place in Rome on 25–27 October 2018 and is organised by three of our authors, Lorenzo Perilli, Daniela Manetti, and Amneris Roselli, as well as two other scholars.

In Hippocratic scholarship in general, we can see a movement towards greater awareness of and concern with the social setting in which it took place. Concepts such as the medical marketplace in which practitioners of various types competed became more prominent, as did the place of women. Over the last thirty years or so, one can also note a greater interest of historians of philosophy in the *Hippocratic Corpus*. Of course, the overlap between so-called Pre-Socratic (or perhaps better, Early Greek) philosophy and Hippocratic thought had been known for a long time, yet more and more proper philosophers are paying close attention to Hippocratic writings, just as they do to medicine more generally. Three areas that have proved particularly fertile are epistemology (how to know whether treatments work); the anatomy of the body (how the different parts function); and the body–mind interface, for instance, how the body influences the mind, how mental illnesses come about, and how physiological processes such as mixtures interact with psychological ones such as moods.

The aim of the present *Cambridge Companion* is to provide the uninitiated reader with a first overview of the rich topic that is Hippocrates and the *Hippocratic Corpus*; and to provide easy and multiple ways into it. The '*Hippocratic Corpus*' and Hippocrates are not mere synonyms, as we have already seen, and they exist in a creative tension that is felt throughout this volume. The *Corpus* encompasses many different and often widely divergent treatises that tell us a lot about early Greek medicine. Many of the chapters included here explore their plurality, but also the common features that one can find among them. Likewise, the powerful attraction that

<sup>12</sup> Jouanna and Zink (2014). <sup>13</sup> Pormann (in press).

the figure of Hippocrates exerted over generations and generations of patients and practitioners also deserves full scrutiny. Hippocrates was constructed and reconstructed across time and space in myriad ways. This lavish legacy often surpassed the historical and textual record. Hippocrates became a symbol, a token for the ideal physician, who already in a Greek (often mythical) past prefigured contemporaneous best practice. For this reason, in temporary terms, this *Cambridge Companion* pays a great deal of attention to what one could call the afterlife of Hippocrates, beginning in Hellenistic times and continuing nearly until today.

Both Hippocrates and the *Hippocratic Corpus* are multifaceted; similarly, the approach taken here is equally diverse. The different authors all tackle the topics from their particular viewpoint, which are often diverse. The first two chapters, both written by extremely eminent scholars from different traditions, already illustrate this; generally speaking, I have not tried to impose doctrinal unity or impose one interpretation. The different approaches can stand next to each other. Likewise, the authors of the chapters come from different countries and traditions, and are at different points of their academic career. There sometimes is, or at least is perceived to be, a substantial divide between 'continental' and 'Anglo-Saxon' scholarship, the former more focussed, for instance, on philology and the latter on social history and critical theory. This difference in approach can nicely be discerned, for instance, in the two chapters on 'aetiology' by Jim Hankinson and 'epistemologies' by Lorenzo Perilli: whereas the former is clearly indebted to a more analytical tradition, the latter sometimes waxes lyrical in its metonymies and metaphors in the style of continental philosophy.

This *Cambridge Companion* is written in English, the lingua franca of modern science and scholarship, and encroaching more and more even in the field of the humanities. Yet, there can be no doubt that anyone who wants to delve deeply into scholarly debates and make his or her own original contribution needs to read French, German, and Italian; possess excellent knowledge of Greek and

Latin; and ideally also master some of what our continental colleagues call the 'Oriental' languages (e.g., Arabic, Hebrew, Syriac). This, in a way, was one of the challenges in editing this *Companion*: to make what is often very recondite scholarship in languages other than English accessible to the general reader without any previous knowledge – linguistic or otherwise. To this end, four chapters included here were translated, from French (Jouanna, Boudon-Millot), German (Leven), and Italian (Perilli). In the case of the chapter on the textual history, I myself abridged and simplified a much longer contribution (now published as Jouanna 2017), and translated it into English. I am personally particularly pleased that I was able to include this chapter, as it is the first time in a *Cambridge Companion* that textual history and criticism, and the branch of philology concerned with producing critical editions – what the French call 'ecdotique' – is fully explained and explored in a separate chapter.

Most specialists refer to Hippocratic works by their Latin titles and abbreviations, which, in a way, is strange, as they were written in Greek and have titles in Greek. Here, however, we have used English titles throughout. For ease of use, however, the appendix lists all treatises in the *Hippocratic Corpus* according to their English titles together with their standard Latin ones in full and abbreviated format. Therefore, those who want to venture further can easily understand the somewhat recondite nomenclature used in specialist scholarship.

Elizabeth Craik opens the volume with an overview chapter of both what we know (or rather, do not know) about the historical Hippocrates and about the structure and content of the *Hippocratic Corpus*, or, as she prefers to call it, the *Hippocratic Collection*. Craik begins by reviewing briefly the information about Hippocrates, and argues that although many later sources are clearly apocryphal, we should perhaps pay greater attention to them. Internal evidence from the *Hippocratic Collection* for Hippocrates' life is virtually nonexistent; however, one can glean some information about the authors of individual treatises such as *Epidemics* from their content.

The difficulty, however, remains, that one cannot be sure who this author was – whether the historical Hippocrates or someone else.

Craik then surveys the *Hippocratic Collection* and emphasises its diverse nature in terms of themes, styles, and date of composition. She discusses various methods of classifying the texts: Littré, for instance, had eleven categories; some scholars distinguished between Coan and Cnidian works; others used subject matters. Yet, ultimately all these systems are flawed, and modern scholarship has largely abandoned them. Despite these caveats, it is possible to group certain texts together and show that they were probably written by the same person, or at least come from the same milieu. She also cautions us against following previous fads and favouring some treatises over others: the Oath, for instance, is so unique in its impact that it has wrongly removed other ethical (or ‘deontological’) treatises from people’s attention.

Despite all the diversity within the *Hippocratic Corpus* and all the difficulties to discern the historical Hippocrates from among a mass of later legends and stories, Craik pleads against the idea of abandoning the notion of Hippocrates. The long tradition clearly saw a unifying principle that somehow binds the various texts together; and these texts cannot be separated from the historical Hippocrates, who, in a way, marks the beginning of the Hippocratic tradition. She sees the present *Cambridge Companion to Hippocrates* as evidence for this assessment.

Any study of the *Hippocratic Corpus* needs to be based on a sound understanding of the texts within it. One can come to such an understanding, however, only through an awareness of how the texts were transmitted. Why do we read the Greek texts as printed in our modern editions; how did the editors arrive at their choices when deciding between variant readings; and how did the texts survive over a period of more than 2,500 years? Jacques Jouanna provides answers to these questions by approaching the textual history of the *Hippocratic Corpus* in a twofold way. He first tells the story of the Hippocratic text from the earliest time, the late fifth century BC until

the Middle Ages and the Renaissance. He shows what we know, but also hints at the great loss of information that characterises so much of classical Greek culture. Both Plato and Aristotle mention Hippocrates, but then for the next 300 years, we have only the most limited information about the transmission of the *Hippocratic Corpus*. Yet, we can learn about the first Alexandrian editions and the many commentaries, which are so crucial to textual scholarship.

Jouanna also recounts how the editions of our time are the product of a long tradition, beginning with the Renaissance printings in the early sixteenth century. The most accepted Greek text resulted from the first editions by the Aldine Press, and later editors often followed their text, even when they had access to better manuscripts with superior readings. As it happened, this was also the case for the great French editor of Hippocrates, Émile Littré, whose edition and French translation of the *Complete Works of Hippocrates* (1839–61) remains the standard reference. It is only with the development of textual criticism and stemmatics in the late nineteenth century that things changed. A science emerged that endeavoured to understand how the different manuscripts related to each other, in order to reconstruct the earliest form of the text, the so-called archetype. To do so, it is important to distinguish between the direct tradition – the Greek manuscripts and papyri containing works by Hippocrates – and the indirect tradition, consisting of the many quotations in commentaries, glossaries, and other works. The last century and a half then saw many critical editions, often the result of large-scale projects and international collaborations.

Brooke Holmes then takes us into debates about the Hippocratic body. Taking her cue from discussion in contemporary debates in critical theory, she shows that the concepts of the body in general, and in the *Hippocratic Corpus* in particular, are constructed. There is not just the body as an objective reality that is described in its complexities; rather, we conceptualise the body through our own assumptions, be they cultural, societal, sexual, personal, or otherwise. Holmes then traces ideas about the body (Greek *sôma*) from Homer

to the *Hippocratic Corpus*, and then looks at how the different Hippocratic writers conceptualise it as a space that can be mapped and as a dynamic entity that fulfils various functions.

The inside of the human body was largely hidden from Hippocratic authors. They conceived of it in terms of receptacles such as the bladder and vessels, which carried the various bodily matters, including the humours, from one receptacle to another. The texture of the bodily parts also played an important role: some are spongy and porous, others hard and dense. These attributes were also used to distinguish between men and women, the latter having looser and more porous flesh.

The humours such as phlegm or bile occupy a prominent place in many Hippocratic treatises; when one prevails, this may lead to certain character traits and bodily disorders: phlegm, for instance, can cause epilepsy. Various powers (or 'faculties', Greek *dynámeis*) also play an important part: different organs possess different powers contributing to the overall function of the body as a whole. Some powers counter others, and the body becomes the arena of conflict between competing elements, both internal and external. Digestion is a case in point: the innate heat concocts the food, a necessary phenomenon, that, when it goes wrong, can again lead to disease. Therefore, one needs to take care of the body in its complexity to maintain health (and life itself).

In his chapter on 'aetiology', Jim Hankinson discusses views about the causal origins of disease (and by extension of conditions of health), and causal theory more generally construed. He shows the many competing and often conflicting accounts of how disease comes about that we find in the *Hippocratic Corpus*, which itself, as we have seen, contains texts composed over a period of several centuries and written from a variety of different, and at times incompatible, theoretical standpoints. He focuses on the treatises dating to the fifth and fourth centuries BC, especially those concerned with theoretical debates, such as *Epidemics*; *Prognostic*; *Ancient Medicine*; *Art*; *Nature of Man*; *Regimen*; *Sacred Disease*; *Breaths*; *Airs*, *Waters*,

*Places; Affections; Diseases; and Places in Man*. These treatises differ very widely from one another in their understandings of the origins of diseased conditions and the type of theoretical entity any responsible aetiology needs to posit. Despite their differences, however, these texts share a general commitment, notably a belief in the physical causality of disease and a corresponding rejection of any appeal to divine intervention, at least in specific cases. Hankinson discusses the various methods by which the different theorists seek to commend their own particular views, in particular in regard to their relations with empirical evidence and confirmation. He does so by frequently letting the texts speak for themselves, thus providing a wonderful flavour of the debates that raged in the medical circles of classical Greece.

Aetiology is closely linked to the topic of the next chapter, epistemology: after all, the theory of causation, aetiology, also involves knowing the causes, something that falls within the compass of the theory of knowledge, epistemology. Yet, Perilli, who tackles the latter topic, approaches it quite differently from Hankinson. Perilli begins his discussion with the key episode from the *Iliad* around the wrath of Achilles, the greatest Greek hero: he is angry with Agamemnon, who leads the expedition against Troy, and is minded to withdraw from combat and return home. Achilles says about Agamemnon that he 'does not know how to look/think/understand (*noêsai*) before and after'. This ability to classify events in order to learn from the past to predict and influence the future is what Perilli calls 'Achilles' paradigm'. He argues that although the medical writings of the *Hippocratic Corpus* are manifold and diverse, we find here for the first time a critical self-reflection about one's own methods, a realisation, so to speak, of Achilles' paradigm. The intellect (Greek *noûs*) creates knowledge (*epistēmē*), and this is a crucial part of the medical art (*téchnē*). Yet, equally important is the practical knowledge, the 'astute intelligence' (*mêtis*) that is a key attribute of the eponymous hero of the other Homeric epic, Odysseus. Whereas Achilles exemplifies the virtuous hero able to know the past, act in

the present, and be aware of future consequences, Odysseus, the anti-hero, uses his many wives (*polýmētis*) to his advantage. Hippocratic medicine, Perilli concludes, encompasses both: knowledge (*epistēmē*) and practical intelligence (*mētis*).

He arrives at this conclusion after a rollercoaster ride through the epistemological aspects of the *Hippocratic Corpus*. At the origin of medical knowledge stands observation: the physician sees the signs of health and disease, and records them faithfully. The next step is to classify the data, to arrange it, in order to make sense of it. This then allows one to identify diseases ('diagnosis') and to foretell their course ('prognosis'). Moreover, treatments are developed on the basis of these classifications. The Hippocratic physician records not only positive cases, but also negative ones; the error and the awareness about it is crucial to the progress of medical knowledge. Perilli also emphasises the fact that many Hippocratic texts such as *Sacred Disease* make a clear distinction between natural and supernatural agency, and reject the latter as an explanation for health and disease. This said, other texts remain in the previous paradigm and employ magical remedies.

Like epistemology, ethics is a topic that generally comes under the heading of philosophy. In the next chapter, Karl-Heinz Leven explores the ethical aspects of Hippocratic medicine. Of course, the most famous ethical text within the *Corpus* is the Oath. It is the most famous medical text from antiquity, and casts an enormous shadow. And yet, as Leven argues, it only became famous from the first century AD onward, and is, in many ways, at odds with other treatises in the *Corpus*. Therefore, it is unlikely that it dated back to Hippocrates' lifetime, nor does it reflect the medical ethics of the fifth and fourth centuries BC. For this reason, Leven begins by considering the question of medical ethics from a different vantage point. He first gives an overview of the other treatises on medical deontology within the *Corpus*, namely *Law, Art, Physician, Decorum* and *Precepts*; many of these texts, too, are of a rather late date, and therefore not a reliable guide to the situation in classical times. It is therefore

necessary to consult other treatises in the *Hippocratic Corpus* as well as other texts from the fifth and fourth centuries BC.

By combining these different sources, Leven highlights the main topics of medical ethics in Hippocratic medicine. The injunction 'to help and not to harm' occupies a prominent position, as does the concern to preserve one's own reputation and that of the medical art more generally. For instance, the ability to predict the course of a disease allows the physician not to take on desperate cases that would end in failure, although the *Epidemics* contain quite a few notes on cases that did result in the death of the patient. Leven also cautions us against reading modern concerns into the texts from the past. For instance, the debate about when to discontinue life support did not play any role in Graeco-Roman times, as medicine was much more limited in its abilities.

In the last part of his chapter, however, Leven discusses the Oath and the debates surrounding it in some detail, as no discussion of Hippocratic ethics could overlook this highly influential text. It is both mysterious and imbued with religion, and therefore contrasts sharply with the secular tendencies that we find throughout the *Hippocratic Corpus*. Leven dismisses Ludwig Edelstein's idea that the Oath originated in a Pythagorean milieu, and ponders the problem of why surgery is forbidden, although it featured within the *Corpus*. Likewise, the injunctions not to provide lethal or abortive drugs remain puzzling, especially because we find recipes for the latter in certain gynaecological works. Ultimately, the Oath is an oddity within the *Corpus*, and a text that came to exemplify medical ethics only from the Renaissance onwards. We should therefore not use it as a guide to this topic in classical times.

The next two chapters deal with the question of what a disease is and how to treat it. In her chapter, Amneris Roselli begins by pointing out that the term 'nosology' (like so many others such as 'aetiology' or 'epistemology') is derived from Classical Greek, but is actually a modern invention. Yet, although the Hippocratics had no word for 'nosology', they certainly discussed the nature of diseases and how to

classify them. Within the *Hippocratic Corpus* we find a group of what one could call 'nosological' texts, the most important being *Diseases 1–4*; *Regimen in Acute Diseases*, and *Affections*, the last composed with a lay audience in mind.

Roselli begins by explaining the different ways in which the Hippocratics classified disease. The place where an illness occurred offered a prime criterion (already used in Mesopotamian medicine), and we find an arrangement of diseases from 'tip to toe', that is, from the top (the head) to the bottom of the human body. The division of diseases into acute and chronic largely postdates the *Hippocratic Corpus*, although there are clearly a number of works specifically dealing with acute diseases. Another opposition is that of common versus specific to a certain location, such as so-called 'epidemic' diseases.

Roselli then discusses the nature of the nosological treatises, and shows in particular how they were composed and what material they share. Then she lists the elements of which the description of each disease is generally composed (although not all are always present); they are the name, symptoms, aetiology, treatment, and prognosis. She then ponders the problem of two opposing tendencies: to differentiate and to find common features. Apparently the lost *Cnidian Sentences* contained a proliferation of closed lists of diseases according to certain categories; 'closed lists' here refers to a list with a specific number, such as 'seven diseases of the bile' and so on. Yet the author of *Regimen in Acute Diseases* rebukes this proliferation. Finally, Roselli closes with a reflection on the relationship between Mesopotamian and Hippocratic nosology. Although there are some common elements (such as the arrangements of diseases 'from tip to toe'), Greek texts are generally freer and more innovative, whereas the Mesopotamian material is more controlled and conservative.

The treatment of diseases is the topic of the next chapter by Laurence Totelin, or rather, the treatment of diseases through medicinal substances and diet, as opposed to surgery, which is discussed in the following chapter. Totelin begins with a long quotation from

*Disease of Women 2* that illustrates the great variety of therapeutic options, ranging from drugs to diet, and includes fumigation. This example also illustrates that the division of therapy into drugs (*phármaka*) and regimen (*díaita*) is often blurred in the *Hippocratic Corpus*.

In the *Corpus*, we do not have any work specifically dedicated to pharmacology, although it is clear that in the fifth and fourth centuries, pharmacological writings, or at least drug files, did exist. The treatises with the most practical drug recipes in the *Corpus* are the various gynaecological treatises, such as that quoted at the beginning of the chapter. *Regimen* and *Nutriments* offer advice on diet as a means of treating diseases. Further, unsurprisingly, the nosological treatises already also discuss therapy, as we have seen.

Totelin then argues that rather than distinguishing drugs as internal and external, it is more appropriate to classify them by their entry point into the body. The mouth is obviously the most important orifice, but the skin, nose, anus, and vagina also all play their parts. Drugs had a huge variety of different effects, and these effects were later used to classify them. The most important drug actions related to the four primary (or cardinal) qualities of drying or moistening and warming or cooling. In general, the principle of ‘opposites cure opposites’ – known in Latin as ‘*contraria contrariis curantur*’ from the Greek ‘τὰ ἐναντία τῶν ἐναντίων ἐστὶν ἰήματα’ and nowadays called ‘allopathy’ – dominated the Hippocratics’ therapeutical thinking.

Physicians and other medical practitioners operated in a competitive medical marketplace and often argued about the best (or even just the right) treatment. We can trace these debates through a variety of Hippocratic texts, such as *Sacred Disease*, which inveighs against charlatans and faith healers. Importantly, the boundaries between folk remedies and the learned remedies of the Hippocratic doctors are not always so clear cut. In fact, Totelin concludes that the latter undoubtedly often drew on the former, not, of course, without modifying them and integrating them into their own medical system.

In this way, Hippocratic therapeutics were not stagnant or conservative, but an interesting locus of innovation and change.

Hippocratic surgery has been a somewhat neglected topic over the last 100 years, and was perceived as rather basic. In his chapter on the topic, Mathias Witt, a clinically trained surgeon himself, rectifies this perception. He does so by drawing not just on the surgical treatises in the *Hippocratic Corpus*, but also on the rich later tradition from the first century AD onwards, which preserves many important fragments of Hippocratic material. He argues that one can use modern criteria and divide Hippocratic surgery and the treatises contained in the *Corpus* into trauma and non-trauma surgery. Trauma surgery is well represented in the *Corpus*, with works dealing both with bones, notably the setting of dislocated bones, and soft tissue injuries. Yet non-trauma or elective surgery is represented only by *Haemorrhoids* and *Fistulas*, two rather short works. This has led some scholars to link lack of non-trauma surgery in the *Corpus* to a reluctance to cut in non-emergency cases.

Witt argues, however, that the many fragments from the otherwise lost treatise *Wounds and Missiles* demonstrate that non-trauma surgery was part and parcel of Hippocratic practice. He concedes that the principle 'to do no harm' was of paramount importance, to protect not just the patient, but also the reputation of the practitioner. This said, in the fifth and fourth centuries, there was a body of Hippocratic treatises – or possibly one large work possibly representing a file of various materials – that as a whole encompasses all areas of surgery performed in antiquity. It is only through the vagaries of transmission that non-trauma surgery is rather poorly represented. Witt also discusses the injunction in the Hippocratic Oath not to cut stones, arguing that it should be seen in the light of the principle of doing no harm and preserving the reputation of the physician. Yet, there were no specialist barber surgeons as in the Middle Ages, and most Hippocratic physicians will also have performed some surgery.

Throughout his chapter, Witt provides examples of surgical procedures, which remain rather basic by modern standards. Given

that there was no anaesthesia or asepsis, deep or invasive surgery was not attempted. The area of bone surgery, for instance, focussed on setting dislocated bones, and some of the procedures described in the *Corpus* still continue to be used today and are even called Hippocratic. He closes the chapter with a brief discussion of gynaecological surgery, focussing on obstetrics and operations on the female genitals, which, again, remained rather basic.

Lesley Dean-Jones then looks at the topic of women in Hippocratic medicine more generally. A main topic of contention is whether *in general* women need different treatments from men. In other words, the question is whether apart from childbirth, menstruation, and purely female conditions sex played a role for the Hippocratic doctor. Within the *Corpus*, there are a number of treatises devoted specifically to gynaecology and obstetrics, such as the various works contained in *Diseases of Women* 1–4, *Sterility*, *Nature of Women*, and *Generation and Nature of the Child*. Yet, the *Corpus* also includes many case histories, especially in the *Epidemics*, and roughly a third of them have female patients.

In the gynaecological treatises, the treatments often have a popular or folk element to them, and not a few form part of what the Germans call '*Dreckapotheke*'—a pharmacology that relies heavily on waste products of various sorts, including excrements and urine. Smell in particular was a potent remedy, created both through fumigations and in various pessaries, inserted, for instance, into the vagina. Hippocratic doctors apparently dealt only with problematic births, and one would assume that midwives routinely delivered babies. Male physicians undoubtedly drew on the knowledge of such midwives and other female practitioners and patients, the latter describing their own experiences which men cannot share.

The Hippocratics, like many other contemporaneous Greek thinkers, saw strong differences in male and female physiology. Women were thought to be softer and moister. Menstrual blood is necessary for childbearing. Yet, when the blood is not used for procreation, then the excessive blood needs to be expelled through regular

periods. When menses are retained, however, the excess of blood in the body has a detrimental effect. Therefore, young girls are encouraged to marry (and by implication engage in sexual intercourse with their husbands) and to have children, in order to counteract any excess blood and its harmful consequences. Although there is only limited evidence, it would appear that male physicians diagnosed and treated women differently from men. How exactly they related to their female patients is unclear, but in certain situations, they must have transgressed the normal boundaries of shame that existed in Greek society, where most women were secluded from men.

The relationship between patient and physician is addressed extensively in the next chapter by Chiara Thumiger. She begins by reviewing the sources and what they can tell us about this relation. The most important one is undoubtedly the *Epidemics*, a composite text with three main parts: Books 1 and 3 contain the most rhetorically elaborated case histories; Books 2, 4, and 6 are characterised by widely divergent material ranging from scattered notes to coherent accounts; and Books 5 and 7 include numerous long narratives. These case notes, to be sure, are written by doctors and reflect their perspective, but they give us numerous insights into the patients' perspectives as well; at times, we can even discern the patients' voices across the clinical accounts.

From the *Epidemics* and other Hippocratic treatises, a complex picture emerges. In the fifth and fourth centuries, physicians were mostly itinerant, and therefore did not have lifelong relationships with their patients, even if we find many cases where doctors follow patients over extended periods of time and seem to have known them well. During the consultation, physicians used their own perception of the patients to predict their current condition and its future path. Yet, they also questioned them to take their medical history, and the subjective experience of patients shows through a number of clinical accounts.

Scholars have long argued that Hippocratic medicine appears to be centred on physicians who seem to have little regard for, and

empathy with, their patients. Repeatedly, texts in the *Corpus* emphasise the need of the patient to defer to the physician; and the case histories can appear detached and devoid of compassion. Yet, Thumiger offers another reading of these clinical accounts that allows us to see how patients shared their experiences, including their fears and anxieties with their doctors, thus suggesting a more nuanced picture of the doctor–patient relationship in Hippocratic times.

The final four chapters deal with the reception of Hippocrates and the Hippocratic Corpus in later times, beginning with Véronique Boudon-Millot's chapter on his most important exegete, Galen of Pergamum (ca. 129–216 AD). Galen lived in a highly competitive age when different medical schools vied for the attention of patrons and patients. These rival schools used Hippocrates to advance their own agenda, and therefore, interpreting Hippocrates in the light of one's own medical doctrine proved particularly important. Galen began to write commentaries on Hippocrates first for private consumption, for himself and a small coterie of friends and colleagues, but later composed them for publication. In this he was animated by the same desire to shape Hippocrates in his own image and to refute rival interpretations. Galen wrote not only commentaries, but also other works devoted to different aspects of Hippocrates' works, such as *On the Elements according to Hippocrates*, an introductory work, or *On the Doctrines of Hippocrates and Plato*, a massive attempt to harmonise the physician's and philosopher's ideas.

The principles (*archai*) of Hippocratic thought occupied a pivotal place in Galen's mind, and they were first, anatomy is of paramount importance in medicine; second, two different types of heat, innate and acquired, play a central role in human physiology; and third, health consists of a balance of the four humours, linked to the four primary (or cardinal) qualities, dry and moist, and warm and cold. Through his oeuvre, when Galen interprets Hippocrates, he reads these ideas into the Hippocratic text, even where, from a modern point of view, he clearly cannot be right. Finally, Galen insists that the *Best Physician Is Also a Philosopher*, as his work

with this programmatic title argues. And Hippocrates, in Galen's portrayal at least, emerges as the physician who embodies this ideal.

Although in the second century AD Galen still operated in a world characterised by competition between rival schools, Galen's own interpretation of Hippocrates and his own medical doctrine came to dominate Late Antiquity. Daniela Manetti traces the story of Galen's growing dominance, beginning with the stories about Hippocrates. His fame grew through the centuries, and more and more undoubtedly apocryphal stories were told about him: he cured a Persian king of lovesickness; refused a high salary to go to the Persian court; cured the Athenian plague, and so on. Not just stories about his life, but also his witty sayings gained increasing popularity and were often quoted outside medical circles. Some of these witty sayings can be found in the *Hippocratic Corpus*, such as the first aphorism, 'Life Is Short, the Art Is Long ...'; others do not appear in any extant Hippocratic works. In the age after Galen, Galen's Hippocratism, as we have said, became dominant. This is true, for instance, for the encyclopaedic tradition, whose main exponents are Oribasius, personal physician to Emperor Julian, the Apostate (reigned 361–3); Aetius of Amida and Alexander of Tralles (both sixth century), and Paul of Aegina (seventh century). All these writers had strong links to Alexandria, where the iatrosophists (or professors of medicine) taught a syllabus of Hippocrates and Galen in the amphitheatres. We also have a large number of Hippocratic commentaries, written in Greek as lecture notes, dating from the fifth to seventh centuries. They offer us a unique insight into how Hippocrates was taught in Alexandria. One important feature is the increasing importance of Aristotelian and Neoplatonist philosophy during the medical lessons.

In the Latin West, Galenism did not dominate to the same extent, but here, too, we find traces of Hippocrates in various guises. There are, for instance, a number of Latin translations from Late Antiquity, often originating in Northern Italy. Likewise, some of the lecture note commentaries travelled from Alexandria to Ravenna, and were translated there into Latin. And the popular stories about

Hippocrates also find their way into the Latin tradition, all the way to North Africa, where they appear in the works of St Augustine and in mosaics surviving in what is now Algiers.

This Late Antique tradition with all its ramifications had a profound impact on the Arabo-Islamic world, which I explore in my own contribution, focussing on both Hippocrates as a legendary figure popular among the Muslims, and on the *Hippocratic Corpus* as translated into Arabic. I begin by studying the many legends and reports of Hippocrates' life that enjoyed great popularity in Arabic. Much of this material goes back to Late Antiquity (as previously discussed by Manetti). Not only did reports about Hippocrates' life entertain Arab readers, but also the many utterances that were attributed to him. Some came from texts such as the *Aphorisms*, whereas others do not have any specific provenance that can be traced. In this way, the figure of Hippocrates loomed large in the medieval Islamic world, and stories and sayings found their way into works of literature.

I then turn to how the *Hippocratic Corpus* was transmitted into Arabic. Generally speaking, one can say that it came in the wake of Galen, and notably Galen's many commentaries on Hippocrates' work. The main translator was Ḥunayn ibn Ishāq, a Nestorian Christian living in ninth-century Baghdad. His powerful patrons commissioned Arabic translations, which he produced with the help of his collaborators in his 'workshop' or 'school'. Importantly, the translation from Greek into Arabic often involved a Syriac intermediary translation (Syriac is an Aramaic dialect used by Christians in the Middle East and beyond; it is, in a way, the language that Jesus would have spoken).

Generally speaking, the legacy of Late Antique Alexandria was incredibly powerful for the reception of Hippocratic works in Arabic. It comes, therefore, as no surprise that the Alexandrian curriculum also dominated later developments. For this reason, I close with three case studies on Hippocratic texts that proved to be particularly popular in both Alexandria and Baghdad, namely the *Aphorisms*, the *Prognostic*, and the *Epidemics*. The *Aphorisms*, for instance, spawned

more than a dozen extant Arabic commentaries, and others that are lost now. All three texts, moreover, played a crucial role in the education for many generations of medical students in the medieval Islamic world.

My chapter clearly shows that Hippocrates and more generally the Greek medical tradition exerted an enormous, formative influence over developments in the medieval Islamic world. It is therefore fair to say that the Arabo-Islamic medical tradition is as much heir to the Greeks as is Christian Europe. Moreover, the links between medicine in Latin Christendom and the Arabo-Islamic world are not limited to a shared heritage. Medicine in the 'Latin West' developed largely through contact with the 'Arabic East', notably the many translations of medical texts that not only dominated the nascent European universities in the Middle Ages, but continued well into the Renaissance.<sup>14</sup> Therefore, it makes no real sense to speak of a 'Western medical tradition' or 'Western medicine' to the exclusion of the Islamic heritage; the latter was part and parcel of the former. Therefore, when scholars at the (now defunct) Wellcome Institute for the History of Medicine in London compiled a survey of *The Western Medical Tradition: 800 BC to AD 1800*, they rightly included 'the Arab-Islamic medical tradition'.<sup>15</sup> One has to bear this caveat in mind when reading the last chapter by David Cantor on 'Western Medicine since the Renaissance'. Cantor here explores how Hippocrates and the *Hippocratic Corpus* continued to be of relevance in Europe and North America ('the West'), while being fully aware that 'Western' medicine did encompass the legacy of the Islamic world.

In the Renaissance, Hippocrates first was very much read and understood through the prism of Galen, and only slowly emerged from his shadow. As challenges to Galen multiplied, for instance because of the discovery of new anatomical features and new diseases, Hippocrates morphed into a chameleon-like figure that could be used to justify diametrically opposed positions. He stood

<sup>14</sup> For a recent exploration of this topic, see Hasse (2016), with further literature.

<sup>15</sup> Conrad et al. (1995).

for practical medicine and observation and against theoretical speculation; and then again, as the model of the philosopher-physician whose medical insights are steeped in theory. Adherents of the new chemical medicine of Paracelsus could claim Hippocrates as their model against mainstream medicine; and the medical and scientific establishment, for instance in the form of the Royal Society, could view him as the figurehead of the empiricism advocated by Francis Bacon (1561–1626) and dominant for much of the seventeenth and early eighteenth centuries. In Leiden, Hermann Boerhaave (1668–1738) advocated a medical chemistry according to Hippocratic principles, and in France, Philippe Pinel (1745–1826), the pioneer of psychiatry, erected Hippocrates as a model to follow.

This trend to remodel Hippocrates in the image of one's own convictions continued throughout the nineteenth century. In the United States, for instance, Hippocrates was used on different sides of the arguments leading to the American Civil War (1861–5). And perhaps the last generation of physicians trained in the Classics who lived towards the end of the century regarded Hippocrates as the antithesis to emerging modern medicine that, with its technical apparatus, tests, laboratories, and mechanisation, lost sight of individual patients with their idiosyncrasies.

Over the course of the twentieth century, Hippocrates lost relevance in medical debates, and few practitioners nowadays would claim to follow him in their theoretical and practical approach, although some still do. Yet, Hippocrates increased in importance in the area of medical ethics, and especially after the Second World War and the crimes of the German National Socialists, including in the field of medicine, modern Hippocratic Oaths proliferated in many medical schools, following on from the Declaration of Geneva, which is a rewritten version of the Hippocratic Oath produced in 1948. Hippocrates also continues to live on in popular culture, as cartoon characters, rap creations, or *Star Trek* personas: A *Deep Space Nine* episode, 'Hippocratic Oath', sees Dr Bashir grapple with

Hippocrates' legacy, and elsewhere in the *Star Trek* universe, Hippocrates and Galen appear.

These chapters in this *Companion* cover a large array of topics in Hippocratic studies. And yet, one could have added many more; this is the nature of any such enterprise. But there are two chapters that I would particularly have liked to add to this collection: (1) on the pre-history of Hippocratic medicine and its contact with surrounding traditions; and (2) on the interplay between philosophy, especially Pre-Socratic and Aristotelian, and Hippocratic medicine. As they are missing here, let me just provide a few thoughts on both topics and suggest further readings.

In the past, we had the notion of a 'Greek miracle' or 'miracle grec': from the seventh to the fifth century BC, a highly sophisticated Greek culture emerged as if out of nowhere, a truly miraculous occurrence. Another notion was that of the transition from 'myth (*mýthos*)' to 'reason (*lógos*)', which was largely completed by the fifth century BC. For medicine, take the famous example of *Sacred Disease*, a treatise that advocates that epilepsy has natural causes just as any other disease. It argues in particular against the prevalent opinion that the gods are specifically to blame for it, and that it is somehow linked to spiritual contamination or ritual pollution. Therefore, so the story goes, without any precursor, we see a fully formed rational approach to medicine appear all of a sudden, and this is due to the Greek genius.

Over the past thirty years, this view has seen a number of challenges, the two most important being the following. First, it is wrong to characterise the Hippocratic medicine of *Sacred Disease* and other similar treatises within the *Hippocratic Corpus* as rational and what came before as irrational.<sup>16</sup> Magic, for instance, can function according to its own rational system that is internally coherent – even if, from a modern perspective, we do not believe in it. Nor, to stay with *Sacred Disease*, is Hippocratic theory rational in the sense of rejecting

<sup>16</sup> See the pioneering work of G. E. R. Lloyd (e.g., 1979, 2003) on this issue.

all supernatural agency: all natural phenomena are 'divine (*theía*)'. Moreover, the basic explanation of epilepsy in this work – that it is caused by an excess of phlegm in the brain – is hardly underpinned by what modern medicine would call 'evidence'. With this in mind, when we look at the pre-history of Hippocratic medicine, we find important predecessors, the two most important being ancient Egyptian and ancient Near Eastern cultures, to which Hippocratic medicine was indebted.<sup>17</sup>

The relationship between early Greek (or Pre-Socratic) philosophy and Hippocratic medicine is an intimate, yet complex one.<sup>18</sup> For instance, the physician and philosopher Alcmaeon, who probably lived towards the end of the sixth century BC, stressed the importance of balance, a concept very prominent in many Hippocratic texts. Likewise, many Hippocratic texts resonate with debates in early Greek philosophy; a good example is the discussion of *téchnē* ('art', 'craftsmanship', 'expertise') in *Ancient Medicine*.<sup>19</sup>

Likewise, Aristotle's biological works and the so-called *Shorter Works on Nature* (known by their Latin title of *Parva Naturalia*) pick up many of the themes discussed in the *Hippocratic Corpus*. As some of the treatises date from the fourth century BC, they are roughly contemporaneous with Aristotle and reflect common debates at the time. Therefore, this topic, too, is fertile ground for scholarly enquiry.<sup>20</sup>

Despite the inevitable gaps that an enterprise like the present will undoubtedly have, I sincerely hope that this *Companion* will introduce a new generation of readers and students to Hippocrates and the *Hippocratic Corpus*. Both loom large not just in the so-called 'Western' tradition of medicine, but also in intellectual and popular culture more generally, both East and West. Greek medicine in general and the Hippocratic tradition in particular offer fertile ground for

<sup>17</sup> van der Eijk (2004a) gives a concise and lucid summary of the debates with further literature.

<sup>18</sup> See van der Eijk (2008) for a general discussion. <sup>19</sup> See Schiefsky (2005).

<sup>20</sup> van der Eijk (2014).

future scholarship on all levels, from detailed philology and editorial technique to social and theoretical approaches that provide fresh readings. Yet, it is perhaps in the area of Hippocrates' afterlife, beginning with Galen, that the most still remains to be done. Let us not forget that we have neither a critical edition nor a translation into any modern language of Galen's *Commentary on Hippocrates' 'Aphorisms'*, the most read and debated Hippocratic text. And most of the Arabic Hippocratic tradition still remains to be edited. Therefore, may this *Companion* be a contribution to current debates, and a stimulus and springboard for future research.