

*Galen's imperial order of knowledge**Rebecca Flemming*

Order (*taxis*) is a vital matter for the great imperial physician Galen of Pergamum. Sound method (in all things) depends on it: on beginning at the beginning and proceeding systematically through all the requisite stages until the goal is attained. It is, moreover, a test that most in the medical field fail. Galen's total commitment to good order provides him with a measure against which his rivals (past and present) can be measured and found wanting: it creates an important space within which his superiority can be asserted once again. Thus, for example, he makes order a key dividing line between Rationalists and Empiricists in *On the therapeutic method*, suggesting that it underlies the epistemological gap between these two medical groupings.¹ The latter, he avers, solve problems and make discoveries in a disorderly fashion – through what they happen to observe, through chance experience – while the former lay claim to an orderly and logical approach to the acquisition and consolidation of knowledge. Their delivery is poor, however, and most Rationalists fail to start at the beginning; they also recapitulate received wisdom rather than actually working through a line of reasoning or argument. Two types of *taxis* failure are thus demonstrated, and duly criticised, allowing the virtues of the Galenic model to shine through all the more clearly. It is stated more positively, and practised, in many of his tracts and treatises: proper order is always asserted, and essayed, in his various enquiries and disquisitions.

Still, as Galen became increasingly aware over the course of his long and illustrious career, especially as his monumental oeuvre began to take on something approaching its final shape, that shape lacked the kind of order he so repeatedly avowed in his individual projects. The sum of well-ordered parts is not necessarily a similarly structured whole; an accusation that could be levelled not just at the sum of his writings, but also at the totality of the

¹ Gal. *MM* 1.4 (x 30–35 K); and on medical sects and Galen's relation to them more generally see, e.g., Frede (1985). A key to abbreviations for Galen's titles can be found at the beginning of this volume.

medical art (*iatrikē technē*) they claimed to encompass, since the two were so closely connected. The former displayed the latter, variously demonstrated Galen's mastery of all the knowledge, methods and skills requisite to medicine; any problems of order could not, therefore, be confined to the literary realm, but might also call into question the authority of his version of the *technē* in a more global sense. This gap, therefore, had to be closed: overall order had to be imposed, and there are recurrent efforts amongst his later works to do just that. The first attempt was made with the short treatise *On the order of my own books*, addressed to one Eugenianus and probably written around the time of Septimius Severus' accession to the imperial throne in 193 CE.² Here Galen proposed programmes of reading, structured paths through his oeuvre. Next, the compact compendium on the *Medical art* made a rough stab at a more general ordering of medical knowledge, and supported its summary outline with a bibliographic end-piece that provided a guide to the works that fill in the detail on each topic covered. An exhaustive listing of his entire literary output was, however, deferred to a later occasion, a promise fulfilled by the arrival of *On my own books*, a text that not only lists but classifies, first biographically and then by subject matter. Lastly, *On my own opinions*, is a summation of key Galenic tenets, completed perhaps at the very end of his long life, in the early third century CE.³

These last two texts present themselves primarily as guardians of authenticity, as defences against literary fraud or mutilation, and doctrinal error or distortion, respectively. Nor is this a pre-emptive strike. Galen claims that works falsely attributed to him are already on sale in the Sandalarium at Rome, and that his writings, despite their clarity, are currently being traduced by modern readers, ignorant of grammar and the basic tools of understanding as they are.⁴ Of course, he also has his eyes fixed firmly on posterity, on the time when he will be unable to come to the aid of his oeuvre in person, and must rely on these textual boundary markers and signposts to police and direct subsequent interpretations. Issues of order

² This work is usually located in the period between the death of Marcus Aurelius and the accession of Septimius Severus but has clear connections with works usually placed in Severus' reign, not least the fact that it shares its addressee with the last eight books of *On the therapeutic method* (see x 456 K). On the standard periodisation/chronology of Galen's oeuvre see Ilberg (1889), (1892), (1896), (1897); and Bardong (1942); though various subsequent textual discoveries, and the lengthening of Galen's life (see Nutton (1995b)), have amended the schedule to some extent.

³ So, at least, the Arabic tradition would have it. Rhazes states, for example, that this was Galen's last work (Muhaqqiq (ed.) (1993) 4.2–4). See the recent edition by V. Nutton (*CMG* v 3.2; 1999) for more detailed discussion of this text.

⁴ Gal. *Lib. prop.* pr. (*SM* II 91.1–13), *Prop. plac.* 1 (*CMG* v 3.2 54.19–56.11).

are, therefore, implicit in these productions, submerged under other ostensible objectives; though the threat of disorder is perhaps more palpable than any order Galen imposes. The threat that the border between the genuine and the fake would dissolve, that the fundamental principles to which Galen had been consistently committed throughout his career and had brought to bear on all his literary compositions, might be betrayed, altered beyond recognition, by future generations, is all too real.

Ordering is more openly pursued in the other pair of texts, in response to a different (though interrelated) set of challenges. Thus, *On the order of my own books* opens with Galen's assent to Eugenianus' suggestion that some explanation of the order of his writings would be helpful:

For they do not all have the same aim, function and subject matter. As you know, some were written at the request of friends, aimed specifically at their situation (*hexis*), others were dictated for youthful beginners.⁵

Nor are these the only causes of heterogeneity and confusion. Further works had to be composed in response to criticism received, founded (of course) on error and misunderstanding; while various notes made for Galen's own personal use found their way into the public domain, contrary to his wishes. Indeed, a whole range of Galenic texts passed, unsupervised, from their intended recipients to much wider and less suitable audiences.⁶ The diversity inevitably produced by targeted composition thus threatened to degenerate into promiscuous chaos. The inclusion of 'subject matter' among the problematic variables also signals back to the inherent complexity and multiplicity of medicine itself, a further force for literary proliferation and diversification, which is what the summary *Medical art* essentially strives to counter and control.

So too, in its own way, the treatise *On the parts of the art of medicine*, which attempts to rein in, or at least impose some kind of order and reason on, the divisional profligacy within the art. This over-abundance is demonstrated in terms of both the wider range of different methods of partition applied and the myriad branches of medical knowledge and practice that have variously been brought into existence. While the methodical divergences are the product of wider disputes in the learned medical tradition – such as between the Empiricists and Rationalists – the profusion of subdivisions and specialisms, or at least the actual materialisation of so many of the almost endless theoretical possibilities thus created, is more socially and economically determined:

⁵ Gal. *Ord. lib. prop.* 1 (*SM* II 80.3–7); cf. *Lib. prop.* 2 (*SM* II 102.10–19).

⁶ Gal. *Lib. prop.* pr. and 2 (*SM* II 92.4–93.16 and 97.6–98.11).

You [i.e. Justus, the treatise's addressee] should not be surprised if the scope of the art of medicine causes it to be divided in a great city into this large number of sections.⁷

It is only in a huge metropolis such as Rome (and Alexandria) that a career as a dedicated tooth-, ear-, or eye-doctor, or as a cutter of hernias, or as a specialist on the stone, or whatever, is viable.⁸

Galen's Rome was particularly awash with such people, who presented, in various ways, a threat to the integrity of the *iatrikē technē*. Firstly, their logical proliferation threatened to burst the boundaries of the art, to render it incoherent through overpopulation and excessive differentiation. For, if being a tooth-doctor and a hernia-cutter are both legitimate professional identities then it follows that a different physician will be required to deal not only with each part of the body, but also for each ailment of each part. Secondly (and interconnectedly), there is the question of the relationship each sub-set of skills has with the art as a whole: where does this leave the unity of medicine? For this is a crucial, foundational, concept for Galen, and indeed other medical writers in a culture that, more broadly, ranked the generalist above the specialist. Parts of medicine must, therefore, be validly and properly derived from the totality; must make clear reference back to their unitary origins. That is, again, to assert the need for order amidst a confusion that might degenerate further; though it must be admitted that the actual *ordering* Galen proposes and performs in *On the parts of the art of medicine* is not as decisive or successful as the situation would seem to demand.

The failures of orderly correspondence between parts and whole in both art and oeuvre are, therefore, derived mainly from a series of circumstances external to Galen himself. The character of medicine itself has a role to play in the story, as does Galen's natural affinity with it, the sense in which he has had valuable things to say on the subject, things people want (or need) to hear, right from the outset of his career, which in turn leads his own output to be heterogeneous, as explained above for *On the order of my own books*.⁹ The more serious problems arise, however, from the ways in which medicine's inherent complexity has been exacerbated, allowed to run riot, in the contemporary world: a world of material growth, of increased content,

⁷ Gal. *Part. art. med.* 2.3, translation from the Arabic by M. Lyons (*CMG Supp.* Or. II 28.9–10 and 29.13–14; for the Latin version see 120.29–31). On this text, and further discussion of these points, see von Staden (2002).

⁸ Gal. *Part. art. med.* 2.3 and 2.2 (*CMG Supp.* Or. II 28.9–18 and 26.21–3; 120.31–121.3 and 120.17–22).

⁹ See, e.g., *Ord. lib. prop.* 4 (*SM* II 88.6–89.4) for some of Galen's claims about his innate suitability for medicine, combined, of course, with good education and total commitment; and *Lib. prop.* 2 (*SM* II 97.6–98.11) for his literary precocity.

but falling intellectual and moral standards, a place of much ignorance and error, from which control and sound judgement are too often missing. All of which puts considerable pressure on a man of Galen's educational and ethical formation. The organic development of his own output, driven by his desire for a totalising understanding of all matters relevant to the medical art, and shaped by his own commitment to good order, has thus been multiply disrupted, by his friends and companions, with their requests for clarification and edification, as much as by his enemies and rivals, with their attacks and glaring mistakes: all require (he feels) a response. Nor do the forces that produce this heterogeneity in his work show much sign of letting up thereafter, indeed, various extra entropic tendencies come into operation following production, threatening to dissolve the coherence of Galen's project further. So he is compelled to attempt to redress the situation, to assert his ownership over his own body of writing, and over the *iatrikē technē* itself.

Several themes emerge in this recuperative discourse of order. Some points are very self-referential, and self-serving (though that does not make them entirely untrue). Galen's figuration of this field enables him to complain, and complain vigorously, about his very success; a tactic that he is very partial to. It is his superiority, his abilities, his authority and reputation, which are at the root of many of his problems. The fact that his is a voice people want, indeed need, to hear on such a wide range of topics and issues, that he is so much in demand, is crucial to the loss of control over his oeuvre. However, Galen has also situated himself in the highly competitive and contentious world of classical medicine more broadly, and demonstrated his participation in its complex networks of power and prestige. He has, furthermore, drawn particular attention to certain key aspects of his wider social and cultural environment in this respect, aspects of its imperial formation. Indeed, he has actively involved himself in that formation.

In particular, Galen's struggle for order is a struggle for control over abundance, as also is the ongoing Roman imperial project: indeed, the tension and interplay between the two might be said to characterise processes of conquest and colonial rule more broadly. Empire is a cornucopia, but that richness, that fecundity, must be properly structured and directed, properly arranged and managed. Otherwise it may slip into luxury and excess, be misappropriated and abused, and thus disrupt established patterns of morality and power. It may even come to undermine the mastery of the rulers itself, both practically and conceptually. The alignment between Galen's empire of knowledge and Rome's political dominion in this respect is not just implicit, abstract or figurative, it is positively articulated and concretely grounded in various ways. The world of plenty, productive and

problematic as it is, is clearly centred on Rome, as imperial capital, and that is where Galen situates himself as he strives to organise that plenty as it relates to medicine. This is specifically indicated in *On the parts of the art of medicine* and *On my own books*, but there is a general sense of this placement purveyed in the other works mentioned so far too. Galen is, wants and needs to be at the centre of things, at the centre of power: power over a vast empire. Nowhere but Rome could support his ambition, could foster his totalising vision. There is nowhere else he could stand and have both the reach and leverage to bring order to it all, to bring a much better order to so much more than anyone else.

The problems of that location have also been brought out; accusations that abundance is being mismanaged, has become entropic excess, have been made in these same taxic texts. That, however, is very much part of the imperial package, and drawing attention to metropolitan vices, to failures of mastery and control, threats of disorder and devaluation, is an integral part of much writing of the early empire, in Latin as well as Greek. The question has been raised, however, whether Galen's criticisms do not possess a rather different quality to those of, say, Pliny the Elder, or Seneca the Younger, with which they certainly share much content, in that they are lodged in an essentially, avowedly, Hellenic cultural identity, while Pliny's, for example, are ostensibly grounded in old-fashioned Roman values and traditions, and Seneca's are more hybrid products. Simon Swain particularly stresses this point, reading Galen's Greek allegiances as providing 'insulation' from the Roman world, an insulation not bridged by any real interest in the 'Roman idea', or involvement in the imperial government, in contrast to a number of roughly contemporary Greek writers, from Lucian and Pausanias to Aelius Aristides and Arrian.¹⁰ Galen's disapproval of contemporary Rome, his attacks on her anti-intellectualism and poor educational standards as well as her more materialistic failures, has, for Swain, a greater coherence and cogency than his more positive engagements with the city, its inhabitants and endeavours.¹¹ These are sporadic and superficial, a matter of expediency, about advancing his career, while Galen's true loyalties lie entirely elsewhere. Swain thus concludes that, 'In a very real sense, in what mattered to him, Galen . . . was not in the Roman Empire'.¹²

This whole volume, however, is about how much harder it is to escape from the Roman Empire than that statement would suggest; a point that has

¹⁰ Swain (1996) 377.

¹¹ Swain does discuss these positive moments (1996) 363–72; and for differently emphasised coverage of some of the same passages see Nutton (1978) and (1991).

¹² Swain (1996) 378–9.

been repeatedly made in much recent scholarship relating to other empires too.¹³ Indeed, Swain's suggestion that the intensely Greek identity asserted by men such as Galen in the 'Second Sophistic' was a reaction to Roman control would also seem to undermine the idea of Galen as an author who stands apart from the Roman Empire.¹⁴ Can Galen really be such a clear product of Rome's empire and not participate in it? As already indicated, the argument in this chapter is a different one, in respect to both Galen and the empire in which he operates. Galen may come from Pergamum and remain committed to his essentially Greek cultural and ethical formation, even use it as a basis for his criticisms of the contemporary Roman world, but none of that prevents him from utilising Rome's empire also, from drawing on its material and ideative resources, its scope and structure, in creating, organising and selling his own medical system. There is, moreover, no contradiction here, though there may be tensions and slippages. These kinds of interactions are, rather, constitutive of the Roman imperial project itself; in all their complexity, their multiplicity of perspective and emphasis.¹⁵

These, then, are the themes that will be explored further in this essay, explored in particular as they emerge around and through questions of order, both in Galen's individual works and in his oeuvre as a whole. For, to find the Roman Empire in the contents of the Pergamene's writings, in the peoples and territories, medical materials and foodstuffs, diseases and cures, referred to and described therein, is too easy and obvious. The claim is rather that specific patterns of empire, the signs of an imperial order that goes beyond simple geography, can be found in, and across, his works. Those patterns do also possess a particular cultural inflection, for Galen's Greek identity and attitudes are not irrelevant here; it is just that they do not allow him to stay detached from the Roman Empire; rather they provide a particular trajectory of involvement, which needs to be examined as part of the overall package.

THE ORDER IN THE BOOKS

The methods of organisation and structure adopted in particular texts and treatises, and the reflections on arrangement they contain, will now

¹³ As emphasised in the introduction (esp. pp. 3–6); and see also for more thoroughgoing 'imperial' approaches to the Greek literature of the first few centuries CE, Schmitz (1997) and Whitmarsh (2001).

¹⁴ Swain (1996) 411.

¹⁵ As Pliny also demonstrates, for example, with his reliance on, and his manipulation of, Greek knowledge: see, e.g., Beagon (1992); and also Murphy (2004).

be analysed in detail, before returning to the ordering of the cumulative whole at the end. The focus here will be on the major tracts, those covering expansive and complex topics, and comprising multiple books; thus posing rather more acute organisational and presentational challenges than a single, narrowly focused book or booklet. While most of the works in Galen's vast output come in at three books or under, there are plenty that exceed this, with the most voluminous being the monumental forty-eight books of *The words in Attic prose-works*, now lost.¹⁶ More durable have been the seventeen books *On the usefulness of parts*, the fifteen *On anatomical procedures*, and the fourteen *On the therapeutic method*, to mention just a few.

From the surviving large-scale works, as well as indications about those no longer extant, it is possible to discern four main approaches to their overall ordering, although given both the practical exigencies of ancient literary production and Galen's personal predilections, there are always tendencies to disorder operating within, and against, the overarching plan and structure of any of his output. For example, the use of book rolls and dictation, not to mention the lengthy time intervals between the completion of different portions of some treatises, all militate against total coherence.¹⁷ Similarly, Galen's tendency to digress, to follow a current train of thought through, regardless of its precise contextual fit or relevance, and to pursue polemical points at the expense of positive argumentative clarity or development, take their toll too. Nonetheless, the underlying patterns are reasonably clear.

The first order is corporeal. The classic head-to-toe presentation is not Galen's primary organisational mechanism for anatomical or physiological knowledge itself, though some of the more specific or introductory works, such as *On the dissection of the nerves* and *On the dissection of the muscles*, come close, and there is a certain downwards drift in other texts too. But it is employed to structure pathological and therapeutic material. Diseases may be arranged according to the somatic location they afflict, or are seated in, as *On the affected parts* (in six books) demonstrates. A remedial counterpart to this is the eleven-volume compendium *On the compounding of drugs according to places (kata topous)*. The second approach to order is more categorical or thematic, adopting a framework from a way of breaking

¹⁶ Mentioned at *Ord. lib. prop.* 5 and *Lib. prop.* 17 (*SM* II 90.6–9 and 124.7–8).

¹⁷ Galen refers to a couple of works he dictated to tacheographers sent by the parties who wanted a record of the discourse in question (e.g., at *Praen.* 5.19–20 (*CMG* V 3,1 98.27–100.1) and *Lib. prop.* I (*SM* II 95.21–96.1)); and, though he makes no such comments about his regular working practices, it is impossible to believe that he could have been so prolific without the kind of secretarial support employed by, for example, Pliny the Elder (*Plin. Ep.* 3.5).

up the world (or medicine) that is not based so directly on the human body. Thus, the companion tract to *On the compounding of drugs according to places* is that 'according to kind' (*kata genē*): that is, according to an internal pharmacological typology which collects together, for example, all the *emplastra* (plasters), *malagmata* (emollients), and *akopa* (for pain relief and general refreshment). Diseases also have an internal typology (indeed typologies), and *On the therapeutic method*, for instance, operates with a division between maladies based in the homoeomerous (uniform) and anhomoeomerous (non-uniform) parts.¹⁸

The two other orders are more literary, or at least textual. One takes its structure from a pre-existing work. This is most obviously the case with Galen's 'phrase-by-phrase' commentaries on Hippocratic texts (of which a good number survive), and some philosophical writings; but he also wrote summaries of, for example, the *Anatomical studies* of Marinus, and Heraclicides of Tarentum's seven books *On the empiric sect*.¹⁹ The latter apparently took a polemical approach, and other lost but decidedly hostile tracts may well have followed a pattern of roughly 'phrase-by-phrase' refutation. Indeed, within the extant section of Galen's oeuvre, large portions of *On the doctrines of Hippocrates and Plato* are dedicated to systematic argument against the Stoic scholar Chrysippus' works *On the soul*, and *On affections*, as well as the promised engagement with the teachings of Galen's twin heroes, Plato and Hippocrates; while *On the natural faculties* pursues a sustained critique of Erasistratus' physiology; and it is widely believed that much of his very extensive writing on the pulse is based on that of his, heavily criticised but also heavily relied on, recent predecessor, Archigenes of Apamea (whose career at Rome peaked in the reign of Trajan).²⁰ The second order under this heading is alphabetical (*kata stoicheion*), an arrangement adopted in most of the books of *On the mixtures (kraseis) and properties (dynameis) of simple drugs* that actually list the simples themselves, as well as in his *Hippocratic glossary* and (presumably) the lost lexical works, including all forty-eight volumes on words used by Attic prose-writers.²¹ As

¹⁸ The homoeomeries are those which divide into like pieces, such as blood, bone and arteries, while the anhomoeomeries are not so divisible and include compound parts and organs such as the hand, eye, heart and liver. See, e.g., *MM* 1.6 for a rough explanation, and also 2.6 for the associated pathological schema (x 48 and 125–6 K).

¹⁹ On Galenic exegesis see Flemming (forthcoming); and these abridgements appear at Gal. *Lib. prop.* 3 and 9 (*SM* II 104.12–13 and 115.14–15) respectively.

²⁰ On Galen and Chrysippus see Tieleman (1996) and (2003); and on Galen and Archigenes see Wellmann (1895).

²¹ As suggested at Gal. *Ord. lib. prop.* 5 (*SM* II 89.13–15).

an order of words, the alphabet has more obvious appeal than as an order of things; but it can, and is, applied to both.

The work on simples also clearly illustrates that more than one mode of organisation may be employed in a single, large-scale, literary enterprise. Its first five books lay the foundations of Galenic pharmacology in a methodical fashion: first demonstrating the fallacies and inadequacies of all current approaches to the subject, then expounding the basic building blocks of the system that is to replace them. This exposition begins by establishing that everything in the world is composed of the same four elements, which then combine to produce the humours (in a certain balance or mixture, that is *krasis*) in the human body on the one hand, and properties (*dynameis*) inherent in their mixture (*krasis*) in other things in the world – such as plants, earths, stones and animals – on the other.²² These *dynameis* can then be grouped in relation to their effect on the human body, through its own mixture of humours: primarily according to whether they are heating or cooling, drying or moistening; and secondarily according to whether they are purgative or productive, softening or hardening, and so forth. Next the things themselves, the external items that can be brought to bear, medically, on the human body, can be organised. The first partition is basically threefold, more or less into the customary categories of animal, vegetable and mineral. The plants then proceed strictly alphabetically (in books 6 to 8), while the minerals (in book 9) and animals (in books 10 and 11) take a more varied course. So, for example, earths are followed by stones, according to their own internal classification, but then come metals *kata stoicheion*. The animal items also initially follow their own typology (rather messily), but revert to alphabetical listing for the ‘things generated from the sea’ right at the end.²³

Similarly, the works on compound *pharmaka*, that is those compounded out of numerous simples, comprise a primary structure, as their respective titles announce, and a secondary one, which is more textual in nature. So, within the overall arrangement by ‘place’ or ‘kind’, existing pharmacological works are excerpted and reorganised, with some Galenic comment, in the way Galen sees fit. Thus, in the books on *akopa* in *On the compounding of drugs according to kinds*, for example, chapters will be introduced along the lines of ‘*akopa* and *myrakopa* (that is with myrrh as an ingredient) recorded

²² For a summary of the fundamentals of Galenic pharmacology see, e.g., Scarborough (1984); and for a more detailed analysis see Harig (1974).

²³ Gal. *SMT* 10.1 and 11.2 (XII 247 and 369–77 K); as Barnes (1997) notes, however, this last alphabetisation is only by first letter, and is more error-prone than the others, which are pretty systematically up to the third letter (10 n. 15).

by Asclepiades Pharmakion in his fourth book *On external (drugs)*, and contain a whole sequence of recipes taken from that source, some of which may themselves have been borrowed from elsewhere.²⁴ In much the same way, the much briefer treatise *On my own books*, as mentioned, begins with a chronological or biographical listing of his literary products, and then turns to a more thematic mode of organisation.

It is also worth returning to the compositional complexities of *On the doctrines of Hippocrates and Plato* already alluded to, for these indicate the way in which more practical exigencies, and social and political considerations, operate to shape Galen's work, at least as he tells it. The original opening of the treatise is lost, which adds to the difficulties in trying to follow its structure; but, in *On my own books*, Galen explains that he commenced writing it at the urging of the consular Flavius Boethus, a man who combined high political office with philosophical commitments (in his case Peripatetic).²⁵ Boethus was an important supporter of Galen in his first stay at Rome (between 162 and 166 CE), forming a crucial part of the audience first for his oral performances and anatomical demonstrations, and then, following on from that, for his textual disquisitions and displays, initially (it appears) just as an addressee and subsequently as commissioner.²⁶ His household also benefited from Galen's prowess as a medical practitioner on more than one occasion, as he proudly recounts in *On prognosis*.²⁷ With his wealth and class combined with culture and learning, Boethus is exactly the type of man Galen wanted to attract the attention and favour of, particularly in the early stages of his career in the imperial capital: the type of man who would (allegedly) request a work demonstrating the congruence and correctness of the views of Plato and Hippocrates on the powers that govern the human being, their number, nature and location. Boethus, however, took only the first six books of this heavyweight literary project with him when he left Rome to govern his native Syria Palestina (as well as the first book of *On the usefulness of parts*), where he died. Galen too left Rome, for his own reasons, and it was only some time after his return to the city where he was now, basically, going to spend the rest of his long life, that he added the final three books that were to complete the work.

²⁴ Gal. *Comp. med. gen.* 7.12 (XIII 1009–32 K). This compilatory process is analysed in detail by Fabricius (1972), who also provides biographies and bibliographies for all the major authorities Galen uses, such as this Asclepiades (another reasonably recent – late-first century CE – predecessor, and not to be confused with Asclepiades of Bithynia).

²⁵ Gal. *Lib. prop.* 1 (*SM* II 96.19–24; and see also 94.16–26 on Boethus).

²⁶ For more details see Nutton (1973). ²⁷ Gal. *Praen.* 7–8 (*CMG* V 3,1 104.24–116.23).

Given that about ten years must have elapsed between starting and finishing the project it is not surprising that these last volumes are on somewhat different, though certainly related topics to the earlier portion. Galen also seems to have made some later revisions to the previous parts.²⁸ It is, however, not just time that serves as a dis-organising force in all this, nor is Boethus the only individual whose influence over the composition of the work is acknowledged. The main problem is the balance between positive presentation and polemic, a polemic that always threatens to take its own course, and often does, leading Galen away from the basic path set down for this literary enterprise. This imbalance, this tendency to slide into a systematic refutation of others, and so lose track of his own argument, is most evident in Books Three and Four of *On the doctrines of Plato and Hippocrates*, and is explained in the preamble to the former. He reports that he was deflected from his original scheme by an ‘eminent sophist’ who claimed that it was not possible to refute Chrysippus’ extensive arguments that only the heart is the source of the ruling power (*hegemonikon*) of the soul, and so the human being.²⁹ Galen had considered that he had dealt with the matter already, as part of his general survey of previous errors on the subject – mistakes either of fact or demonstrative method – in which Chrysippus had featured, though not exclusively. But he feels forced to rise to the challenge nonetheless, to complete a more comprehensive demolition, which takes up book 3, and spills into book 4. It is not clear whether copies of books 1 and 2 were already circulating, for the anonymous sophist to react to them in this way, or perhaps more likely, whether Galen was presenting their arguments orally and was confronted in person, and in public, so that a response could not be avoided. Either way, Galen again draws attention to the external forces acting on his output. Friends and enemies, supporters and detractors, have all contributed, all have their role to play in the way he constructs his own literary career.

Since previous works play such an important part in the organisation of Galen’s own, and that might be considered a challenge to the argument for the operation of a particularly Roman imperial order in them, it is necessary to examine the precedents that Galen is variously following or departing from, adapting or rejecting, rather more closely. Such a discussion also

²⁸ This, at least, is the explanation offered by Ilberg for the fact that the first six books cross-refer to works only composed later (see P. De Lacy’s introduction to his edition of the *PHP* (de Lacy (ed.) (1984)): *CMG* v 4.1,2 47–8). It is also worth bearing in mind that the fate of the actual books Boethus took east with him is unclear, so Galen may have been working with something like a ‘draft’ version when he came to complete the text anyway.

²⁹ Gal. *PHP* 3.1.7 (*CMG* v 4.1,2 168.27); and see Rocca (2003) 17–47 for further discussion of the concept of the *hegemonikon* and its development.

enables some further reflection on the manner in which Galen establishes his own patterns, which are then repeated across his oeuvre, reiterated in different works; and which do enact, both through that repetition and through their own positive character and content, his fundamental commitment to right method and good order in all things. The organisational styles already picked out illustrate his orderliness on one level, but there are deeper patterns too.

THE ORDER BEHIND THE BOOKS

As already mentioned, organisation *capite ad calcem* was common in a range of classical medical genres. The results of Herophilus' systematic anatomical investigations in early Hellenistic Alexandria, the literary results of all his dissections and vivisections of human beings, seem to have been arranged in this manner; and the surviving anatomical summaries from the early Imperial period also tend to follow this pattern (sometimes taking a double journey from head to toe, first on the outside and then the inside).³⁰ This corporeal system is also employed in the first part of Scribonius Largus' Latin pharmacological work, *Compounds*, written between 44 and 48 CE; and further informs the prevalent ordering of pathological works in the first two centuries CE.³¹ These start from the division between acute and chronic diseases found (along with the external/internal split) in the Hippocratic Corpus, then work roughly downwards in each category (as was the Hippocratic practice also).³² Thus, chapters on acute diseases proceed from *phrenitis* (by now an illness originating in the head/brain despite its etymology) to *satyriasis* or *diarrhoea* (both ailments involving the lower parts), and coverage of chronic diseases move from *skotōma* (a head-based dizziness) and severe headache to *podagra* (gout, and other similar conditions), affections of the womb, and *elephantiasis* (a skin disease affecting the whole body, these total conditions were added on to the end of the list).³³

³⁰ On Herophilus see von Staden (1989) 138–241; and I would count Rufus of Ephesus, *On the naming of the parts of the human being* (133–167) (Daremberg-Ruelle (eds.) (1879)), as well as the relevant sections of the pseudo-Galenic *Introduction* and *Medical definitions* (10–11 and 36–60: xiv 699–720 and xix 358–62 K respectively) among these summaries.

³¹ Scrib. *Comp.* 1–162; and see the preface of the edition by Sconocchia (ed.) (1983) for discussion of the dating (vi–vii).

³² The Hippocratic writers focused on the acute, as in the *Regimen in acute diseases*, and the internal, as in *On internal affections*, but this clearly implies the other half of the pairing also. Rough head-to-toe orders can be seen in, e.g., *On affections*, and *Diseases II*.

³³ See Aretaeus, *On the signs of acute and chronic diseases* (CMG II), the anonymous treatise *On acute and chronic diseases* (Anonymi medici *De morbis acutis et chroniis*) (Garofalo (ed.) (1997)), and Caelius Aurelianus' latinisation of Soranus' *On acute and chronic diseases* (CML v, 1).

Therapeutic works might follow these same principles (indeed the same work might cover diagnosis, aetiology and cure), or be structured around their own internal typology; which is also true of their pharmacological sub-set. The initially somatic organisation of Scribonius' *Compounds* then becomes generic, for instance, and Galen clearly draws on both the 'by place' and 'by kind' modes of organisation to be found amongst his other predecessors in the field of complex drugs.³⁴ Indeed, Archigenes composed a treatise entitled, *On drugs according to kind*, while the first systematic compounder of drugs, Mantias himself, perhaps produced a topological correlate in the Hellenistic period.³⁵ In relation to simples, the animal, vegetable and mineral division is very widespread, but Galen explicitly states that in taking an alphabetical approach to ordering his plant-based materials he is imitating Pamphilus' *On plants (Peri botanōn)*, though dramatically improving the quality of the contents.³⁶ Pamphilus was a grammarian based in first-century CE Alexandria, who was familiar with alphabetisation from his other lexical and philological activities (as also was Galen of course); but, despite Galen's implication to the contrary, it is unlikely that he was the first to apply the *kata stoicheion* arrangement to medical materials. Hippocratic lexicography had long co-existed with pharmacological writing among the Herophileans in Hellenistic Alexandria, so the possibilities of cross-over were certainly present earlier, and the *Suda* reports that Bolus of Mendes' late third- or early second-century BCE work on the sympathies and antipathies of stones was ordered *kata stoicheion*.³⁷ Moreover, the author of one of the most important ancient collections of medical materials, Dioscorides of Anazarbus, suggests that alphabetisation was reasonably common among his more immediate predecessors, those who worked in the earlier part of the first century CE; a view supported by the structure of parts of the *Natural history* of Pliny the Elder.

In outlining how his work will surpass its predecessors in terms of coverage, accuracy, reliability, precision and order, Dioscorides alleges:

Mistakes were also made in the organisation of their material [i.e., that of Sextius Niger and the rest], some throwing together incompatible properties, others using a *kata stoicheion* arrangement which splits off genera and properties from what most resembles them. The result is almost impossible to memorise as a whole.³⁸

³⁴ Scrib. *Comp.* 163–271.

³⁵ On Archigenes see Fabricius (1972) 198–9; and on Mantias see Gal. *SMT* 6 pr. (xi 795 K) and von Staden (1989) 515–18.

³⁶ Gal. *SMT* 6 pr. (xi 792 K).

³⁷ Von Staden (1989) 445–62 on the Herophileans; *Suda* s.v. Bōlos Mendēsios; and see for recent discussion of the problems with Bolus' dates and output, Dickie (1999).

³⁸ Dioscorides, *De materia medica* pr. 3 (1 2.11–15) (Wellmann (ed.) (1906–14)).

Sextius Niger was a Roman citizen who composed medical texts in Greek in the first decades of the first century CE, and 'the rest' are presumably his colleagues among the '*neoi*', the recent writers on the subject who, Dioscorides claims, are prone to different kind of errors than the '*archaioi*', their more distant, Hellenistic, ancestors, such as Heraclides of Tarentum and Crateuas the Rootcutter.³⁹ Whether Niger himself was among the alphabetisers or not, *kata stoicheion* organisation clearly extends well beyond Pamphilus, even at this juncture. A point also supported by the fact that the final book of botanical medical materials in Pliny's *Natural history* contains an almost alphabetical sequence, some of its deviations indicating a Greek origin.⁴⁰ Dioscorides further demonstrates that the organisation of medical knowledge, in particular the organisation of the proliferating knowledge about medically effective things in the widening world, was a topic of debate and dispute, part of the ongoing competition between ancient physicians for prestige and patients, authority and audience.

Galen must have been aware of this, and indeed of Dioscorides' position within the debate, for the Anazarbite was one of the main sources he used in his collection of simples in *On the mixtures and properties of simple drugs*, and he is cited elsewhere also. However, Galen makes surprisingly little reference to the points of organisational dispute themselves. In the preamble to book 6 he contrasts Dioscorides' globalising work, in which all medical materials are included within a single text, with the more specific, thematic, texts of, for example, Mantias; but he says nothing about matters of *internal* structure.⁴¹ His own claim that a *kata stoicheion* order 'is necessary' for this material is never actually substantiated or supported.⁴² Moreover, it seems to contradict both some of his general principles and some of the more particular points made in the work itself. Galen has a basic commitment, for example, to ordering according to *physis* rather than *nomos*, that is according to real and meaningful distinctions in the world not conventional categorisations; a commitment that is related to his views on the fallibility of language and problems of terminology.⁴³ This principle is articulated in the first five books of *On the mixtures and properties of simple drugs*, indeed it is encapsulated in the title itself, and various linguistic challenges are also explicitly recognised. Furthermore, Pamphilus appears as a very unlikely exemplar; one that Galen has nothing good to say about.

³⁹ Dioscorides, *De materia medica* pr. 1–2 (1.1.4–2.5) (Wellmann (ed.) (1906–14)); Niger's Greek medical writings are included in Pliny's listing of home *auctores* for books 20–34 of the *Natural history*.

⁴⁰ See Daly (1967) 35–6. ⁴¹ Gal. *SMT* 6 pr. (xi 794–5 K). ⁴² Gal. *SMT* 6 pr. (xi 792 K).

⁴³ See, e.g., Hankinson (1994); and also Barnes (1997).

In so far as Galen does set out to justify his catalogue of materials, and does assert its superiority over its precedents and rivals, he does so in terms of content rather than structure. His is best on account of having the greatest coverage without compromising the entry criteria; while Pamphilus (and also Xenocrates of Aphrodisias) have been much less discerning, demonstrating a woeful lack of judgement as they include, 'old wives' tales', flashy but useless 'Egyptian sorcery' (*goōtia*), and foolish incantations to mutter while collecting the herbs.⁴⁴

Much, therefore, of Galen's organisational style could actually be subsumed under a broader 'textual' heading. Most of his works mentioned so far have literary precedents and are structured along established lines; though Galen has amended and combined, altered and reworked those models in various ways and to varying degrees. He has also consistently expanded the material encompassed within any given medical domain or genre. His treatises tend to surpass their predecessors in size, and, if not, that may be because he treats the same topic in more than one text. The monumental works on compound pharmacology demonstrate these points particularly clearly. The early Imperial period witnessed a growth in this area, both in terms of the number of collections of compound recipes put into circulation and the number of books comprising each collection.⁴⁵ None, however, can match Galen's eighteen-book total in this area, in which everything useful from these previous efforts has been included, within a clearer, more comprehensive and systematic, structure: also borrowed, but also improved.⁴⁶ That empire lies behind this growth as it leads up to, and peaks with, Galen is obvious. The physicians who composed these collections all worked in Rome (some – Galen among them – attended on the imperial court), and they all drew on the vast resources of the empire in their compositions. Ingredients from right across the Roman world, and from Rome's trade with places beyond her borders, appear in many rich and complex remedies. So, for example, a *malagma* Galen takes from the writings of Andromachus the Younger (another medical figure of late-first century CE Rome), brings together Tyrrhenian wax, Illyrian iris, Cilician saffron and

⁴⁴ Gal. *SMT* 6 pr. (x1 792 and 797–8 K).

⁴⁵ The names attached to such collections between Augustus and Galen include not only those of Archigenes, Asclepiades and Scribonius Largus, already mentioned, but also Heras of Cappadocia, the two Andromachi (Elder and Younger) and Crito, to list just the most important (see Fabricius (1972) for fuller listings); and while it is hard to prove that they were more prolific than their Hellenistic predecessors, few multivolume pharmacological works are definitely attached to the latter, in contrast to some of their sectarian writings.

⁴⁶ The closest contender seems to be Asclepiades Pharmakion who probably authored ten books, five on external and five on internal remedies: see Fabricius (1972) 192–8.

Indian nard, not to mention more common (but still exotic) items such as cassia, myrrh and terebinth.⁴⁷ It is not just diverse materials, but also a very wide range of people, who are thus gathered together and absorbed, along with their recipes, into successive compilations. Precise geographical origins are harder to discern here, but a few more unusual monikers and ethnics, such as those of the (presumably) Persian Rootcutter, Pharnaces, and Fabylla the Libyan, appear amongst crowds of mostly Greek, but also many Roman, names in Galen's collections.⁴⁸

The ways in which Galen's literary compositions reproduce processes and patterns of empire also, crucially, go beyond their magnitude and contents into matters of structure. For the Roman Empire, like so many of the texts mentioned, was an essentially cumulative, compilatory, enterprise. Roughly contiguous territories were accumulated through a series of military victories and more peaceful power-plays, and in attaching these new acquisitions to the centre, constructing a political unity from this diversity, Rome relied heavily on existing patterns of power and governance. The old orders were not destroyed and created anew, but rather amended and adapted, refigured to fit into the overarching structure of Roman rule. This, moreover, was the traditional approach to ancient empire building, in which one of the main effects of conquest on local administrations was that they became integrated into a larger whole, rather than being radically transformed in themselves. Of course, that should not imply that nothing changed: this process of integration and reordering through compilation can be transformative in its own way, so long as it proceeds with a reasonably clear and coherent overall structure.

Now Rome's empire was a larger, and in various ways a more considered, compilation than any other; incorporating more diverse material as it stretched west as well as east, not to mention north and south, and structuring it according to its own unifying system, and in its own style. Part of what was distinctive about that style and system was its inclusiveness, the relative openness of both its political and cultural formations. There were limits to this inclusiveness and openness, of course, most strongly on a social level – imperial inclusion was a much more horizontal phenomenon, operating across local elites, than a vertical one – but also on a historical level, as the basic structures were determined, the fundamental principles of order established, prior to their opening up, at least on an imperial scale. Still this was a notable feature of Roman imperial rule, as the career of

⁴⁷ Gal. *Comp. med. gen.* 7.7 (xiii 985–6 K).

⁴⁸ Pharnaces: xiii 204 K; Fabylla: xiii 250–1 and 341 K.

Galen's patron Boethus illustrates, and Galen too in his own way. For it is not just that his compositional procedures reproduce processes of empire in various rather abstract ways; it is not just that Galen's empire of knowledge and Rome's political empire are constructed along the same lines methodologically, and so come to resemble each other in terms of size and shape; but that there is a more positive ideological overlap too, in the rhetoric and practices of order both employ. This emerges most clearly in some of Galen's departures from previous patterns.

BACK TO THE BOOKS (AND THE BODY)

Galen, then, owes manifold debts to his predecessors, both distant and more proximate, but some of his claims to structural innovation are also justified, particularly in respect to writing about disease and cure in their generality and totality. Here Galen uses much more actively analytical classifications than was traditional. This is most obvious in *On the therapeutic method*, where he employs his own, distinctive, conceptual categorisation of disease as the organisational framework; eschewing the customary division between acute and chronic conditions, and also, to a considerable extent, traditional disease entities like 'phrenitis' or 'podagra'. Not that these classes and items have no validity, or utility, but they have no real analytical purchase; they do not go to the heart of the matter, of what being diseased means, and what therapeutics are about. So, they float about on the surface of things, and of his text, rather than contributing to its fundamental structure. *On the affected places* shares some of these features too, though the claim to originality in this case rests with Archigenes, who, according to Galen, was the first to treat localised disease 'systematically' in his own three books by the same name; and these diseased localities are ordered roughly head-to-toe.⁴⁹ Galen, of course, has twice as many volumes in his text *On the affected places*, partly in order to give him space to correct Archigenes' many errors.

This leaves, however, the matter of Galen's anatomy and physiology. Little has been said so far about the massively proportioned, and vitally important, works *On the usefulness of parts* and *On anatomical procedures*; except that they do not proceed *capite ad calcem*, and that the former was also requested by the consular Boethus. Or, at least, that is the claim made in *On my own books*, where it is stated that only the first book was ready to accompany Boethus to Syria, while the rest were finished (like *On the*

⁴⁹ Gal. *Loc. aff.* 3.1 (VIII 136 K); and see also *Cris.* 2.8 (145.1–146.6) (Alexanderson (ed.) (1967)).

doctrines of Hippocrates and Plato) after Galen's subsequent return to Rome in 169 CE.⁵⁰ A rather different account appears in the opening chapter of *On anatomical procedures*, a text which is presented as an expanded and improved version of two books by the same name also given to the consular as he travelled East.⁵¹ These were mere notebooks, however, containing records of Galen's anatomical observations and demonstrations (in which Boethus and other men of his social and intellectual rank had shared) so far. This programme of somatic investigation continued despite the departure of such a keen supporter, so when Galen revisited the subject of anatomy in literary form some years later, a much more detailed and accurate treatise, of greater length and clarity, resulted. The completion of *On the usefulness of parts* in the meantime – indeed its completion in time to send, as a whole, to a still alive and well Boethus, in this version of events – also contributed to the shape and structure of *On anatomical procedures*.

Whichever account is to be believed, the connection between the two major works is a clear and crucial one, and the most immediate impact of *On the usefulness of parts* on *On anatomical procedures*, as Galen himself emphasises, is precisely on its order. The original anatomical pairing had taken their arrangement (*taxis*) from the books of Marinus, which Galen had already epitomised (in four books); but the new improved version will instead follow that of *On the usefulness of parts*, and so begin with the hand.⁵² Before turning to the various reasons Galen gives for this point of departure, it is worth saying a bit more about Marinus and the early Imperial intellectual and bibliographical trends he represents. For Marinus, active around the turn of the first into the second century CE, and perhaps based in Alexandria, is a key figure in the medical world of the Roman Empire, certainly for Galen, but also more widely. Galen credits him with reviving, or recovering, the study of anatomy, which had been in a state of neglect since the early Hellenistic era, meaning that Marinus revived the actual practice of dissection and vivisection (albeit on animal rather than human subjects), and pursued a systematic project of investigation into the body through such methods.⁵³ There is little independent evidence to corroborate Galen's claims about Marinus, but all that survives of his anatomical studies – that is the book-by-book outline provided by Galen as he describes his own abridgment of the text, and his scattered references to more concrete matters of content – indicates that here is expansion and elaboration, not summary and consolidation, of the canonical doctrines

⁵⁰ Gal. *Lib. prop.* 1 (*SM* II 96.19–24). ⁵¹ Gal. *AA* 1.1 (II 216–18 K). ⁵² Gal. *AA* 1.3 (II 234 K).

⁵³ Gal. *PHP* 8.1 (*CMG* V 4.1.2 480.28–30); and see Rocca (2003) 42–6 for further discussion.

of Herophilus and Erasistratus.⁵⁴ The magnitude of Marinus' undertaking (his *Anatomical books* were twenty in number), along with its innovative organisation (definitely not *capite ad calcem* – it begins, somatically, with the skin), and the points of positive contribution to anatomical knowledge Galen picks out, all suggest an ambition to outstrip, both quantitatively and qualitatively, what had gone before.

Marinus' influence is also demonstrated by his pupils, most prominent among whom were Quintus and Numisianus. They took up the anatomical baton, and passed it on to their own students in turn: men who were in some cases Galen's teachers, in others his antagonists, those whose dominant position in the field Galen wished to seize for himself.⁵⁵ The physician whom he most wanted to depose, and replace, in this respect was Lycus of Macedon, who seems to have died just before Galen arrived in Rome, but who left behind a set of anatomical texts that were widely considered to embody the current state of the art.⁵⁶ Part of Lycus' appeal was his direct pedagogical descent from Marinus – via Quintus – but Galen accuses him of squandering that inheritance, indulging in a kind of negligent and degenerative plagiarism.⁵⁷ He is reliant on the words of the master, but managed to introduce numerous errors and omissions none the less. Still, Galen deemed it worthwhile to epitomise Lycus, *Anatomical books* (nineteen in number), and to adumbrate their contents in *On my own Books*, before going on to list his works *On what Lycus did not know about anatomy*, and *On differences from Lycus on anatomy*.⁵⁸ This outline serves to show that, while Lycus returned to the head-to-toe principle, he added descriptions of 'the dissection of the uterus of a dead woman in which there is a foetus', as well as books on the anatomy of the newborn.⁵⁹

In finding his own physiological order, therefore, Galen is reacting against Lycus as well as absorbing and surpassing Marinus. Neither *capite ad calcem*, nor Marinian, structure was permissible, though he certainly includes accounts of the dissection of pregnant goats in *On anatomical procedures*, and also utilises Marinus' more thematic approach to organisation

⁵⁴ Gal. *Lib. prop.* 3 (*SM* II 105.22–108.14, with the lacuna in the Greek filled in the Arabic, see Boudon (2002) which includes an English translation; and, e.g., *AA* 9.3 (II 716 K) and *Nerv. diss.* 5 (II 837 K).

⁵⁵ See, e.g., Gal. *AA* 1.1 and 8.3 (2.217–18 and 660 K).

⁵⁶ On Lycus' reputation in Rome see e.g. *Lib. prop.* 2 (*SM* II 101.26–102.10).

⁵⁷ Gal. *AA* 14.1 (I 232.14–233.5) (Simon (ed.) (1996)).

⁵⁸ This section of *Lib. prop.* is preserved only in Arabic, see Boudon (2002) 16–17 for an English translation.

⁵⁹ The translation is Boudon's. Despite the phrasing of the headings, which could be taken to imply not only adult human dissection, but also dissection and vivisection of human children, Galen's subsequent discussion refers only to animal dissection and vivisection, mostly of goats (see *AA* 12.3–6; I 144.15–154.7) (Simon (ed.) (1906)).

(Marinus' text, for example, treats the skin and flesh, and veins and arteries, separately, as global rather than local entities). There are some borrowings and reworkings then, but within a distinct overall architecture: an expanded architecture that took the Imperial revival in anatomy further into physiology (the two were always entwined in antiquity), by producing this interlocked pair of heavyweight texts – thirty-two books in total – and so really dominating this territory; and an architecture that is essentially ideological in its approach to the ordering of knowledge about the human body and its functioning, an approach that has much in common with the ordering of empire.

So Galen explains, and emphasises, in the opening sequence of *On the usefulness of parts*. Just as each living thing is a unity in the sense that it has clear borders, is not joined to any other living thing, so also are the parts (*moria*) of which it is composed. Except that these parts – such as the eye, nose and tongue – though having their own boundaries, having their own integrity, are also joined up, joined together to make the whole living thing of which they comprise the parts. These parts are varied in type and size, but the usefulness (*chreia*) of each is related to, depends on, the soul (*psychē*): for 'the body is the instrument (*organon*) of the soul'.⁶⁰ Living things with different souls will, accordingly, diverge with respect to their parts. So, the horse has strong hooves and a handsome mane to fit the swift and proud character of its soul, and the fierce lion has teeth and claws while the timid hare is quick but defenceless in its bodily form; but what about man? Man is clever (*sophos*), and even more decisively, shares in the divine (*theion*), so Nature (*physis*) provided him with hands, the best instrument in peace and war. He has no need for teeth or claws, for wielding a sword or spear is much more effective. Nor does he require speed, since, with his skilful hands, he has tamed the horse, which provides not only a means of escape but also a strong position for attack. Indeed, additional protection is offered by the fashioning of clothes and armour, the building of houses and fortifications; while the construction of hunting nets and fish traps demonstrates his lordship of all the creatures of land, air and water. The hands of peaceful (*eirēnikoi*) and social (*politikoi*) human beings, moreover, write laws, raise altars and statues to the gods, build ships, make flutes, fire-tongs and all other instruments of the arts. They even (and perhaps most importantly) compose works about the arts (*technai*), record their reflections on, and theories of, various crucial areas of human activity in writing.

⁶⁰ Gal. *UP* 1.2 (1 1.13–14) (=Helmreich (ed.) (1907–9)).

It is not, therefore, that man is the most intelligent of the animals because of his hands (as Anaxagoras had argued); but that, because of his superior intellect he has hands. Indeed, it is the combination of hands and reason that is vital, it is their conjunction that has produced the *technai* and all other human accomplishments. Rationality, as Galen puts it, 'is an art for the arts in the soul', while the hand, 'is an instrument (*organon*) for the instruments in the body'.⁶¹ Furthermore, the hand is ideally constructed for this purpose, with its opposable thumb, its flexible fingers, its delicacy and strength and so on. The detailed elaboration of the hand's excellence takes up the rest of the first book, except for the closing paragraph, in which Galen outlines how the work will now proceed.⁶² There will, he says, be movement from hand to arm in the next book, then he will 'explain the skill of Nature (*physis*) displayed in the legs', before advancing to the organs of nutrition, then of the *pneuma* (warm air that has become integrated into somatic functioning), reaching the head in Books eight and nine. More detailed discussion of the eyes and vision, then the rest of the face, will follow, with a journey down and then up the spine to the shoulders in books 12 and 13. The next pair of books cover the generative parts and pelvis; while the sixteenth broadens out to encompass the instruments common to the whole body – the arteries, veins and nerves – and the final book is labelled 'an epode', where all the parts, of body and text, are brought together, the overall utility of both is expounded. For the work itself is useful not just to physicians and philosophers, but also to all men, who will be brought into a better understanding of themselves and their universe by reading it. In particular, they will be brought into an appropriately pious attitude towards 'the power responsible for usefulness itself'.⁶³

The journey around the human body that *On the usefulness of parts* describes does, therefore, possess a certain geographical logic: arms, legs, up the torso to the head then down the spine to the pelvis, with two general, totalising books to round things off after the focused start with the hand. However, the real architecture of the text, what gives it shape and structure, is clearly more conceptual and more ideological. It begins with a definition of the parts in relation to their determining whole, in relation to the specifically – rationally, socially, peacefully, intelligently – ensouled human being, and with an assumption about the existence of a beneficent creative force in the universe – Nature (or the Demiurge) – who

⁶¹ Gal. *UP* 1.4 (Helmreich I 6.15–17); cf. Arist. *Part. an.* 687a7–18.

⁶² Gal. *UP* 1.25 (Helmreich I 63.9–64.7).

⁶³ Gal. *UP* 17.2 (Helmreich II 449.17–18); and see Frede (2002) for further exploration of the theme of piety in the *UP*.

has fashioned all living things in accordance with the character and faculties of their souls; indeed, has made each part not only useful, and appropriate, but also for the best, absolutely optimally, in terms of the whole.⁶⁴ Optimal in more general terms too, for there is a clear hierarchy of beings at work here also, with man at the top, distinguished sharply from some of his closest rivals (such as the ape) on occasion.⁶⁵ The order of the work thus follows on from these points of cosmic order: that is why it opens with the hand, why the organs of nutrition, or generation, are grouped together, that is what makes sense of the sequence, just as the sequence itself makes sense of man.

'In *On the usefulness of parts* my aim was to explain the structure of all the human organs, as far as concerns the art', Galen asserts in one of the many introductory sequences in *On anatomical procedures*:

In my present work, my aim is twofold; first that each bodily part, the actions of which I explained in the former work, may be accurately observed; and second to promote the proper end of the art.⁶⁶

The objective of providing the means to see, to observe through dissection, the explanation of each part's function and excellence as already described, clearly involves following the same structure (*taxis*), as Galen repeatedly stresses; but this is not just a literary pattern, it reflects the cosmic order too, as is also frequently reiterated.⁶⁷ The hand, as 'most characteristic' of man, is the place to start, and the legs 'naturally' come next, as the instrument of man's distinctive upright posture.⁶⁸ Then there is a slight deviation from the established order, as Galen covers the whole anatomy of the muscles of the head and torso, and then returns to the pattern of *On the usefulness of parts*, with a final, foetal, addition. This signals the impact of previous works, not his own, on the text, and indeed, there is a running critique of contemporary anatomical inadequacies throughout. The reason the muscles receive such treatment, for example, is that, despite their importance for both understanding the general workings of the body, and ensuring successful surgical intervention, they are woefully neglected by current practitioners who deem them unworthy of serious attention.⁶⁹

Vigorous polemic and self-promotion are permanent features of the Galenic project, but so too is the Roman empire, and this comes very clearly

⁶⁴ On this optimising notion (and its problems) see, e.g., Hankinson (1989).

⁶⁵ Gal. *UP* 1.22 (Helmreich I 58.13–59.20) ⁶⁶ Gal. *AA* 4.1 (II 415–16 K).

⁶⁷ See, e.g., Gal. *AA* 1.3, 2.3, 4.1 (II 234, 291, 417 K). ⁶⁸ Gal. *AA* 2.3 and 4.1 (II 291 and 415–16 K).

⁶⁹ Gal. *AA* 4.1 (II 416–19 K).

to the fore in *On the usefulness of parts*, ably supported by *On anatomical procedures*. Indeed it is possible to figure the former as a discourse about Empire. Its opening definition of a body part, *morion*, as something distinct but joined up with others, something that has its own identity, but within a wider framework, as it is the whole that determines its function and makes it useful, works well also for an imperial part, a province. The similarities are reinforced by the role of the soul in this picture: either in the general, unified, form in which it appears in the introductory sections of *On the usefulness of parts*, or its more specific, ruling aspect – *hegemonikon* – which also makes an occasional appearance in the same work. The basic point, however, is that there is something in charge of all the parts, which has a somatic location, in the brain in Galen's view, and provides a kind of centralised government for the body, as the emperor does for the Empire.⁷⁰ All forms of sensation and perception are communicated to the brain through the sensory (*aisthētika*) nerves, while out along the motor (*kinētika*) or deliberative (*prohairētika*) nerves goes the signal for voluntary movement, either in response, or just in general. The central site, or source (*archē*), of this network, the *hegemonikon* itself, has to be engaged in this process, everything has to go through the centre; and it was against this assumption that the key concept of 'the reflex', the idea that action could start and finish at the somatic periphery was developed in the seventeenth and eighteenth centuries.⁷¹

Patterns of imperial governance seem to be replicated here too, then. The model of provincial report, or petition, then imperial response, of everything going through the centre, is somatically re-enacted. And though there are some decentralising, or, more accurately, multifocal tendencies in the Galenic body, as the brain is not the only bodily *archē* but is accompanied by at least two others – the heart which is the source of the arterial system and the liver which is the source of the venous network – these can also be integrated into the imperial vision.⁷² For it is lower level administrative activities that are located at these sites: the management of the basic processes of nutrition and respiration, for example, the ongoing vitalisation, and integration of the body, just as the more mundane business of maintaining the Empire went on outside Rome. Then there is the figure of the

⁷⁰ The analogy is made explicit by, e.g., Florus (2.14.5–6), who speaks of Augustus establishing his monarchic rule like that of the soul (*anima*) over the imperial body (*imperii corpus*), and on this notion more widely see McEwen (2003).

⁷¹ See Canguilhem (1955).

⁷² The *Ars med.* has four *archai*, with the testicles joining the more standard three, which led to questions being raised about its authenticity: see Kollesch (1988). Her doubts are answered by Boudon (1996).

beneficent and powerful creator – Nature or the Craftsman – who stands above all this, who underwrites the coherence and explicability of the entire system, who gives it meaning, makes sense of it all; that is, who shares some of the same ideological space as the emperor, and also the gods; as indeed both creator and ruler are divine. If it is objected that this is to produce two emperors: the practical rule of the soul has now been displaced by the ideative domination of the Demiurge, then Galen would agree that this is a problem. He wanted and tried to bring the two together, to merge or at least clearly articulate them, in *On the formation of the foetus*, but found it difficult, particularly in terms of giving his conceptual understanding concrete form.⁷³ Moreover, it could also be said that the divisibility of the emperor as man and god, functional and figurative autocrat, was an issue in the Roman world more broadly.

Still, these reiterations, echoes, of empire in medical form, should not be overplayed. The match is not perfect, there is no exact homology, and many of the key themes and concepts on the medical side, go back not only to Ptolemaic Alexandria (an imperial capital after all), but as far as democratic Athens also. The Demiurge is borrowed from Plato, as also the tripartition of the soul, though many Aristotelian and Stoic ideas and interpretations have also become involved in Galen's system. The centralised conceptualisation of somatic function and control, the *archai* and their networks, belong originally to Herophilus and Erasistratus, though not entirely identically. This too has been added to, amended and reshaped, since: perhaps most importantly through an ongoing engagement with the pneumatology (though *not* the cardio-centrism) of the Stoics. Galen's version probably owes a particular debt to the Stoicising medical lineage founded by Athenaeus of Attaleia, and continued by Archigenes of Apamea (among others), in this respect.⁷⁴ In neither case does Galen himself bring much that is new and original to the mix, except in joining them up, in the particularities of the far more encompassing combination in which they participate.

But that is to bring things back to the Roman Empire once again, back to its own processes of formation, organisation and integration. To the Empire as an essentially synthetic political and cultural production itself, and one

⁷³ Gal. *Foet. form.* 4–5 (CMG v 3,3 78.12–90.26). The question is: how is the generic, cosmic design and creativity of *Physis* enacted, realised, individually in the construction of the foetus? The direct involvement of *Physis*, on the one hand, and control and guidance by the rational soul, on the other, are the two initially most attractive possibilities, but neither is satisfactory, and Galen is left admitting uncertainty somewhere between the two, unsure how to link the Demiurge and the controlling, causative powers in each human being.

⁷⁴ On Athenaeus and 'the *pneumatikoi*' see, e.g., Nutton (2004) 202–5.

that fostered further intellectual synthesis within its borders. The development of 'syncretism', or 'eclecticism' – the pooling of theoretical and conceptual resources, as sectarian boundaries softened (but did not disappear) – in medicine, philosophy and other fields of knowledge and understanding, from the first-century BCE onwards, has been much remarked on.⁷⁵ And while the earlier, derogatory, interpretations of both the phenomenon itself and the role of Rome in its appearance have been largely discarded, a sense of connection between the two persists: Rome, the expansion and consolidation of Roman power in the Mediterranean, had some role to play in making a wider range of options available, concurrently and inclusively, to those engaged in a whole host of intellectual endeavours, with divergent approaches. It was, of course, the conflict between Rome and Mithridates that broke the line of authoritative descent in the Athenian philosophical schools, and so disrupted their claims to exclusive ownership of the ideas, and writings, of their founders and successive lineages. Nor was it just philosophical authority that was dispersed and re-located at that time; Actium marked a shift in the centre of medical (and other scholarly) gravity from Alexandria to Rome. More broadly and abstractly, the Roman Empire (following on from its Hellenistic forerunners) encouraged a kind of universalism that is clearly reflected in a variety of intersecting discourses which flourished in the Imperial period. As Rome forged a rough political unity from its conquests, it helped to engender a single community of truth. The diverse sources of information and interpretation it held within itself, historically, geographically and ideatively, all shared a certain status, and so could be drawn on, mobilised, in the service of a range of different systems and projects.⁷⁶

This was not, of course, a world of equality. Some contributions might be adjudged to be more successful or useful than others, and the point was to prioritise, to select, combine and organise, according to individual allegiances, principles and objectives; but in a more flexible and inclusive environment than before. Which is to return the discussion to matters of order, matters which become more pressing given the scale of this imperial community of truth; the sense in which the Empire made more resources available to those involved in generating and mapping knowledge and

⁷⁵ The now standard study of 'eclecticism' is the collection edited by Dillon and Long (eds.) (1988); see also Sedley (1989); and, e.g., Gill (2003) for discussion of how these terms are now understood in the context of Roman Stoicism. Galen is an established participant in these 'eclectic' evolutions.

⁷⁶ So, at least, many active in a range of intellectual spheres clearly felt; but there were also dissenters, continuing partisans of more particular paths to truth, such as Alexander of Aphrodisias, though he was certainly not entirely unaffected by contemporary trends.

understanding concretely, practically, as well as abstractly and ideologically. Amongst this wealth of imperial resources are, however, organisational forms, patterns of thought and practice, structures of meaning and existence, which provide the means to meet these challenges. Galen draws on, adopts and adapts many of these approaches to order – old and new, medically established, or more externally derived – in his works, and the contours, the texture, of the Roman Empire can be seen both in some specific cases, and in this plurality itself. So, there are some distinctly imperial forms of organisation manifest, textual orders which are original to, or more positively derived from, Rome's empire, and there is a general revealing in its encompassing power, its gathering up, mixing and maintenance of multiple traditions.

Moreover, as countless critics of 'colonial discourse' in other times and places have emphasised, this kind of textual participation in the patterns of empire serves to strengthen imperial rule regardless of actual commitment.⁷⁷ Even if Galen is just taking his cue, his models and metaphors, from the way the world is and works, is simply utilising the available means of persuasion, and modes of understanding, his re-inscription of the surrounding structures of domination, his particular retelling of imperial stories, reinforces them through repetition, through the display of their efficacy, through the exclusion of other possibilities. There are some indications of commitment to be found too. Not in terms of explicit political allegiance, though Galen's association with and praise of emperors like Marcus Aurelius and Septimius Severus, as well as his involvement with such leading men of the empire as Boethus, should not be discounted here;⁷⁸ but in terms of cosmic adherence and alignment, as *On the usefulness of parts* illustrates. In a structural sense, and in respect to scale, Galen's worldview has a lot in common with that of Rome's rulers. His position and perspective are Roman imperial creations, and, though his theoretical ambitions may be more traditional, many of his ideas about good order converge with the Roman imperial order. On a fundamental level, moreover, he recognises and accepts that, and that recognition is a mutual, and mutually fruitful, one.

Now, Galen's Hellenism has been rather muted in this discussion of the order *in* the books. The fact that his empire of knowledge is in many ways a Greek cultural construction has been left largely unremarked, not subject to much analytical scrutiny so far. After all, all the formulations of the *iatrikē*

⁷⁷ See, e.g., the collection of essays edited by Gates (1986).

⁷⁸ See, e.g., Gal. *Praen.* II.1–10 (*CMG* v.8.1 126.16–130.10) on Marcus and *Ther. pis.* II (xiv 218–19 K) on Severus.

technē and the philosophical debates he engages with, all the organisational precedents and literary materials he draws on, were at least articulated and written in Greek, if not by Greeks, nor indeed otherwise uncontaminated by things Roman and imperial. However, these latter caveats are crucial, for they clearly demonstrate the complications, the problems, which attend on the very category of *Greek* culture, or knowledge, itself in the Roman Empire. Some further exploration of these issues will, therefore, help to illustrate the depth of Galen's inevitably imperial entanglements, as they are also shared with, or follow on from those involved in similar intellectual projects around, or before him.

THE GREEK ORDER IN THE BOOKS?

Galen's world of knowledge was one to which freeborn Roman citizens, of impeccably Italian stock, had long contributed, in Greek – as Sextius Niger had done in the field of medicine, as well as his friend Julius Bassus – or otherwise.⁷⁹ Dioscorides, moreover, labels both Niger and Bassus 'Asclepiadeans' (followers of the innovative physician and medical thinker, Asclepiades of Bithynia, who had found fame and influence in late Republican Rome), so their participation in the Greek medical tradition was not merely linguistic, a point that Galen himself reinforces with his own respectful reference to Niger in his discussion of pharmacological predecessors and their organisational tactics in *On the mixtures and properties of simple drugs*.⁸⁰ Indeed, Galen groups Niger together with Dioscorides, Heraclides and Crateuas, without making any particular distinction between them. Still, Dioscorides himself hints that Niger may have paid more attention to Italian flora than others had done (though without the requisite accuracy); and his ethnic identity was not irrelevant to Pliny the Elder either, who (implicitly) casts him as a traitor to his Quirital status.⁸¹ Insofar as Galen engages with Niger as a medical authority, one who may indeed have presented his simples *kata stoicheion*, just as the Pergamene did, this is then a rather complexly, and surely not exclusively, Hellenic encounter.

⁷⁹ Bassus' Greek medical writings appear alongside Niger's in Pliny's lists of authorities in book 1 of the *HN* (for books 20–7 and 33–4); and he is referred to by Caelius Aurelianus as his friend (*CP* 3.16.134).

⁸⁰ Dioscorides, *De materia medica* pr.2 (1 1.20–2.5) (Wellmann (ed.) (1906–14)); Gal. *SMT* 6 pr. (xi 797 K).

⁸¹ Dioscorides, *De materia medica* pr. 3 (1 2.5–8) (Wellmann (ed.) (1906–14)); Plin. *NH* 29.17, where Niger is not actually named amongst those few amongst the Quirites to have practised the medical art and 'immediately fled to the Greeks/*statim ad Graecos transfugae*', but given that Pliny explicitly lists his (and Bassus') Greek medical writings amongst the home authorities in book 1, the direction in which the finger points is pretty clear.

Scribonius Largus poses the question of how the Greek status of Galen's (or, indeed, anyone else's) knowledge is to be judged still more acutely. On the one hand, he has a Roman name, his only surviving work is in Latin and it was addressed to a freedman of the Emperor Claudius.⁸² On the other hand, Scribonius locates himself firmly within the Greek medical tradition in the dedicatory epistle which prefaces his Latin collection of recipes, and the form, contents and (as has already been mentioned) organisation of those recipes, broadly fits that Hellenic bill, though several members of the Julio-Claudian dynasty, from Octavia to Messalina, have joined the names which give authority and credence to the remedies provided and there are other signs of a certain Roman ambience too.⁸³ The general point about the character of Scribonius' prescriptions is, however, again emphasised by their Galenic intersections. A number of the same recipes, explicitly attached to the name, and indeed books, of Scribonius, feature in both Galen's works of compound pharmacology, and there is further, tacit, overlap of material too; though this relationship is most likely an indirect one, the result of Scribonius and Galen sharing sources, or just the common currency of certain items in the pharmaceutical repertoire, such as the Mithridatic antidote or theriac.⁸⁴

Most of the recipes positively attributed to Scribonius arrived in Galen's pharmacological compilations via the earlier treatises of Asclepiades Pharmakion, but that is not entirely the case, and it serves only to defer the question of access.⁸⁵ If not Galen, then did Asclepiades, and perhaps other Greek physicians of his generation in late-first century CE Rome, read Latin and use and incorporate Latin medical writings? It should be said, again, that Scribonius' is not the only Roman name to feature in Galen's works by any means, especially in his collections of compound *pharmaka*, though explicit literary, rather than just proprietorial or practical, reference is rarer. The only other solidly Roman author with any real medical presence in Galen is Aelius Gallus, the Augustan prefect of Egypt and invader/explorer of Arabia. Andromachus the Younger, explicitly takes various recipes 'from

⁸² The dedicatee is C. Iulius Callistus, a powerful freedman who successfully made the transition from Caligula's to Claudius' service before his death in (or before) 51 CE (his demise is rather enigmatically mentioned in the epitome of Dio Cass. 61.33.3).

⁸³ Scrib. *Comp.* 59: Octavia's dentifrice; 60: Messalina's, also used by Augustus (35.5–10 and 11–23 Sconocchia).

⁸⁴ See Gal. *Comp. med. loc.* and *Comp. med. gen.* (xii 683, 764, 774 K; xiii 51, and 737–8, 828 K) for the (rough) reappearance of Scrib. *Comp.* 51/2; 27; 26; 75; and 223; 247/8 respectively. There are other explicit Galenic citations not found in the *Comp.*

⁸⁵ All those recipes explicitly taken 'from the (books) of Scribonius' (xii 764 and 774; xiii 314 and 828 K) come via Asclepiades, but there are more attributions than that.

his books', and there are other attributions too.⁸⁶ It is also worth mentioning that Galen criticises this Andromachus (in contrast to his father) on one occasion for using a Latin, rather than Greek, plant name in a recipe for theriac.⁸⁷ His competence in Latin seems assured, therefore, and a similar capability is likely for Asclepiades too; but an equally strong case can be made for the Greek proficiency of Scribonius and Gallus. Indeed it has been argued that Greek was Scribonius' mother tongue, that he was a Greek freedman who wrote the *Compounds* in Latin to curry imperial favour, and that Galen preserves a more linguistically representative sample of his literary output.⁸⁸ Such a view is, however, based on assumption and stereotyping rather than any actual evidence, and more recent scholarship has favoured freeborn Roman citizen status, with perhaps Sicilian origins.⁸⁹ Even without such a bilingual background, Scribonius' facility with, and mastery of, his Greek material, is manifest in his surviving work anyway, and he could easily have written works in Greek as a second language. Gallus too: as a well-educated Roman aristocrat whose cultural and intellectual interests are indicated by his association with Strabo as well as his medical forays, Greek composition would certainly have been well within his compass.⁹⁰

The real point to take from all these possibilities, this shifting of language and perspective, is, as Vivian Nutton has said, 'the ease with which Latin and Greek information could now be interchanged', an interchangeability which obviously puts the integrity of both categories into question.⁹¹ This reciprocity, this sharing, goes beyond information. Both Scribonius and Dioscorides, for example, associate themselves (rather loosely) with the Roman army as a vehicle through which knowledge of the medical riches of the Roman Empire can be acquired, and it is also worth noting that Dioscorides had both a Roman patron and Roman citizenship (whether inherited or acquired).⁹² Amongst his teachers Scribonius counts

⁸⁶ This is assuming that all the Gallus references, except that to 'Marcus Gallus the Asclepiadean' (xiii 179 K) are to Aelius, even when not actually thus specified, which is not completely certain, though reasonably secure. The literary references in Galen are then to be found at xii 625; xiii 28, 77, 202, 556 and 838 K; and see also xii 625, 738 and 784; xiii 29, 138, 310, and 472; xiv 114, 158, 189, 203 K.

⁸⁷ *Gal. Ant.* 1.7 (xiv 44 K). ⁸⁸ See, e.g., Schonack (1912) and Kind (1921).

⁸⁹ Kudlien (1986) esp. 23–5; Langslow (2000) 51–3; and, for a more Sicilian perspective, Nutton (2004) 172.

⁹⁰ Strabo accompanied his 'friend and companion' Gallus on tours around Egypt (Strab, e.g., 2.5.12; ii.11.5; 17.1.29–46), and also described his Arabian campaign; but whether this description was based on a spoken or written account, and in what language, is unclear. This point, and the general question of Strabo's competence in Latin, is discussed in Dueck (2000) 87–96.

⁹¹ Nutton (2004) 172.

⁹² Scribonius was part of Claudius' British expedition, in some capacity (*Comp.* 163; 79.20–22 Sconocchia); and Dioscorides (infamously) refers to his 'soldierly life' (*De Materia Medica* pr.4: 1

both Trypho, presumably the (Elder) Trypho, who had come to Rome from Cretan Gortyn to make his name in surgery, and Vettius Valens, a Roman *equus* whose medical attendance on the empress Messalina was to get him into trouble; and perhaps also Apuleius Celsus of Centuripae who was certainly Vettius' *praeceptor*.⁹³ So, not only was medical education – both teaching and learning – a mixed affair in imperial Rome, but so too was medical service at the imperial court.

Many of the texts Galen engages with, reacts against and draws on, come out of this mix, have been shaped by their contact with the institutions and instruments of Roman power, regardless of their language. There is a sense in which learned medicine had already been imperialised, in its scope and structure, its human and material resources, its social location and associations, long before Galen, and he does not reject those developments, that inheritance, as such. He does, of course, deploy the classical Greek past – most especially his interpretation of Hippocratic doctrine – as a basic measure against which to judge all that has followed; but he is well aware that there have been considerable advances, as well as plenty of wrong turnings, since. It is doctrinal and methodological, not temporal or cultural conformity that is the key. Starting from Hippocratic foundations, Galen seeks to build a system that, for example, integrates not only the crucial anatomical discoveries of Herophilus and Erasistratus, but also the gains of Marinus and his more diligent followers; that incorporates both Hellenistic and Roman expansions of the therapeutic repertoire. And, in many ways, it is the newer arrivals who have had the greatest impact on the organisation of his works, the order *in* the books, even if it is far behind them that Galen claims his most fundamental allegiances lie. Still, the shape of *On anatomical procedures* owes more to Marinus (even Lycus) than to Herophilus. Archigenes appears to be the literary model followed, not only in *On the affected places*, but also in Galen's main sphygmological treatises; and his reliance on the more recent, and more manifestly Romanised, pharmacological texts for both material and order, on a number of levels, has also been repeatedly revealed. Even his style of Hippocratic commentary may be a Roman Imperial phenomenon.⁹⁴

2.18) (Wellmann (ed.) (1906–14)). His patron was Laecanius Bassus; and his citizenship is implied by his name – *Pedanius* (or *Pedacius*) Dioscorides: on all these issues see Scarborough and Nutton (1982).

⁹³ For Trypho see Scrib. *Comp.* 175 (and also, e.g., Celsus 6.5.3 and 7.pr.3); Valens appears in the index; and Apuleius in 94 and 171 (Sconocchia (ed.) (1983): 83.8; 9.18; 49.17 and 81.22 – with apparatus – respectively).

⁹⁴ Though Hippocratic interpretation began in Hellenistic Alexandria, the interests there seem to have been more lexicographical, and the only surviving representative of this exegetical phase – Apollonius

Certainly Galen's general interpretation and understanding of Hippocratic doctrine, his particular construction of this crucial past authority, owes much to his present: most directly to his own teachers, but also to wider recent trends in learned medicine.⁹⁵ It is no accident that the previous exegete he speaks most highly of is the Trajanic physician Rufus of Ephesus, who seems to have shared many of Galen's key commitments in respect to both Hippocrates and the medical art more broadly.⁹⁶ Galen's Hippocratism provided a foundational link with the prestigious Greek past, therefore, but not in such a way as to occlude subsequent developments, the continuity and cogency of classical medical history right up to the time of his own *didaskaloi*. Rather the reverse: though much rubbish and error has to be rejected and corrected, Galen wants to mobilise the more valuable and worthwhile aspects of this continuity and mould it into an upward spiral. Post-classical progress, properly assessed, acquired and managed, allows him, with all his skills and talents, to return to the Hippocratic point of departure at a level far above that at which the great man himself was forced, by historical circumstance, to operate.

Galen has, therefore, much invested in the association, the complicity, of past and present; and he experiences little nostalgia for archaic forms of textual organisation, for Hippocratic styles and structures, for the inconcinnities and disorder of the Hippocratic Corpus itself.⁹⁷ Medicine has come a long way since then, even if faith should be kept with the Hippocratic founding principles of the art. More generally, moreover, Galen is uninterested in denying the fact that Greek culture is now contained within the Roman Empire, has been shaped and structured by Roman power. What he does attempt to do is create, through repeated acts of evaluation and emphasis right across his oeuvre, a certain moral topography of empire that is distinct from its political patterning, and gives ethical precedence to things Hellenic. These patterns mostly co-exist, rather than confronting each other, indeed, they sometimes intertwine and overlap, as well as occasionally conflicting, and, it has to be said, this is all part of the way the Roman Empire worked. Still, insofar as Galen does essay some kind of disaggregation of things Greek from things Roman, or at least tries

of Citium's commentary on the Hippocratic text *On joints* – is a paraphrase, rather than a 'phrase by phrase' exposition, of the work, such had become fashionable by Galen's time.

⁹⁵ On Galen's particular debt to his teachers see Manetti and Roselli (1994) esp. 1580–93.

⁹⁶ Gal. *Ord. lib. prop.* 3 (*SM* II 86.13–87.23).

⁹⁷ See Sluiter (1995) for discussion of Galen's attitude to Hippocratic language and style. He does generally try and defend it, but his defensive posture is itself indicative of the difficulties, which he certainly acknowledges. See also Langholf (2004) for discussion of the 'chaotic' textual structure of many Hippocratic treatises.

to impose a more Hellenic order of knowledge on the hybrid formations of empire, it is to be found in the taxic endeavours directed at his own work, at his own oeuvre and the art it enacts, the endeavours with which this essay began. These now need further examination, in conclusion.

THE ORDER OF THE BOOKS

So far the scale and ambition of Galen's overall knowledge project – his drive to cover and connect all the parts and aspects of medicine and their philosophical foundations or framings, as well as the various linguistic issues implicated in the literary presentation of both – has mainly been mapped on to the same features – the reach, scope and integrity – of the Roman Empire. More implicit have been their more theoretical, conceptual underpinnings, as Galen draws on the systemic projects of the most influential currents of Hellenistic thought, the Stoics and the Epicureans. It is these schools that explicitly articulated the ideal of the fully integrated, holistic, philosophical system, in which all the relevant material, methods, approaches and understandings, are encompassed within well-articulated parts that fit together in a seamless whole; and leading figures within them, most especially Chrysippus within Stoicism, attempted to deliver on that promise in literary form.

The Empire, however, enabled and encouraged Galen to exceed these previous efforts in various ways; as it had already acted on other Greek authors involved in large-scale literary projects of knowledge generation, organisation and management under the Principate. The textual, and conceptual, assemblages of Strabo and Plutarch, for example, or indeed Galen's older contemporary, Ptolemy, all illustrate the ways in which Rome continued to expand Hellenistic horizons, to augment resources and multiply the programmatic possibilities, make available more combinations and conjunctions of ideas, disciplines and genres.⁹⁸ Traces of the same trajectory can be seen in medicine, despite the loss of so much material from the generations preceding Galen. The early imperial growth in pharmacological and anatomical writings has already been noted, for instance, and there were also renewed debates about the proper partition of the medical art at this time, about how the more synthetic enlargement of its 'rationalist' traditions should be managed.⁹⁹ The unity of the *technē* remained a

⁹⁸ On Strabo in this context see, e.g., Clarke (1999); for Plutarch see, e.g., Jones (1971); Duff (1999). Ptolemy is less well served as a cultural, rather than scientific, figure, but his disciplinary and methodological combinations are certainly distinctive.

⁹⁹ On these debated divisions in the Imperial period see, e.g., Flemming (2000) 90–1 and 185–196.

fundamental commitment, but its increased scope and content, together with the way in which certain concepts, theories and approaches were increasingly held in common, put more emphasis on its internal divisions, on the formation and fit of the parts of medicine, as essential to the maintenance of both the control and coherence of, and identity and difference within, the art.¹⁰⁰

The challenge for Galen, as also for these other writers, whether medical or not, was, therefore, to control and even harness this excess. Galen wanted to exploit the Roman Empire in order to surpass his Hellenistic predecessors, while remaining true to the Hellenic principles which enabled him to assert that he had outstripped them, on their own terms, rather than entering a different competition. Success in this endeavour also provided something attractive to sell back to the Roman Empire itself, as the best, most advanced and complete rendition of the field; a knowledge project which has drawn on the resources of Rome and has something to offer in return, in the service of Roman power. Galen (and Ptolemy) make that offer much less explicitly than Strabo (or Plutarch), for example, but it is still there: the tacit presumption that encompassing and ordering the whole medical art together with all the neighbouring areas of expertise and understanding on which it depends, will be of benefit to society more broadly, and could strengthen a similarly constructed political formation.

What Galen shares, more openly, with authors such as Strabo and Plutarch is an insistence that a key element of the service offered is ethical; that the engagement between Greek knowledge and Roman power they are involved in has serious moral content, contains moral messages for Rome, her rulers and elite populations more broadly.¹⁰¹ This is an integral part both of the way Greek culture functions within the Empire, in general – as, *inter alia*, a kind of ethical pole, a complex discourse of evaluative distinctions – and of the particular projects in question. In this latter respect it is, as well as being a point of undoubted personal conviction, a tool of management, of continuity and control. The literary enactment and advocacy of certain Greek values establishes a link with the classical past which can be brought forward into the present, brought to bear on the material being dealt with in any text, and, through the example and teaching of these texts and the

¹⁰⁰ Dissenting, non-eclectic, and more committed sectarian approaches were still possible, however: the Methodists flourished in the Imperial period, and the Empiricists had something of a second-century CE revival in fortunes too. Still, the surviving works of the great Methodic physician Soranus of Ephesus still demonstrate some of the same concerns with organised expansion of the art: see, e.g., Hanson and Green (1994) for an overview of Soranus' oeuvre.

¹⁰¹ Roman and Greek elite populations, of course, both may be, and are, addressed in this context, severally and jointly.

oeuvre they constitute, brought to bear on wider society too. This is a form of managing – reining in, ordering – imperial abundance Greek-style, as distinct from the Roman style adopted by, for example, Pliny the Elder in his *Natural history*.

Which is, broadly speaking, what Galen attempts, in relation to both the art and his oeuvre, in his specifically taxic endeavours. He attempts to assert a basically Greek order, an order constructed according to Greek principles and associated with Greek values, which meets the demands of both continuity and control, within, and in contradistinction to, the disorderly propensities and practicalities of the contemporary Roman world. Some of the ways in which Galen casts the unfortunate present exigencies against which his struggle for order has to be waged as Roman and imperial have, indeed, already been discussed. Rome is, as has been mentioned, the main (but not sole) location of the problems of ignorance, flawed judgement and excess, which Galen confronts in *On my own books* and *On the parts of the art of medicine*. The same tribulations are less localised in *On the order of my own books*, and *On my own opinions*, but their imperial patterning remains implicit, and this theme serves to connect all these treatises. The Greekness of the ordering that these works, and the *Medical art*, strive to establish, and enact, is also implied rather than explicitly asserted, indeed little actual explanation is offered for the various sequences suggested at all. Still, there are, again, certain shared patterns of identification and evaluation that can be clearly discerned.

What emerges from the text of *On the Order of my own books* (at least as it survives in Greek) and from the more summary listing of works at the end of the *Medical art*, is a progression from fundamentals, from works that establish basic epistemological principles and medical methodologies, through the main parts of the art – through knowledge about the human body in health, about disease and sick bodies, and about cures, the recovery (and maintenance) of health – to various reflections on it, mainly in the form of Hippocratic commentaries, then some extra philosophy and philology.¹⁰² The thematic arrangement in *On my own books* also follows roughly the same course. There is, then, an intention to begin at the beginning, with first principles, with what a physician, or anyone who wishes to understand medicine, needs to grasp right at the outset, before proceeding through various logical stages of knowledge acquisition to a final consolidation, elaboration and even ornamentation of the whole, although, as so often, this intention is not entirely realised, since Galen actually identifies three

¹⁰² The Greek text has a lacuna of several pages, though fuller Arabic translations may survive.

possible starting points in *On the order of my own books*: the fundamental pairing of *On the best sect* and *On demonstration* (also cast in the same role at the end of the bibliography in the *Medical art*); the basic set of introductory works (such as *On the sects for beginners* and *On the pulse for beginners*); and (only admitted in the last line of the text) his treatise on the correct use of words.¹⁰³ The *Medical art* also begins its listing, as it does its summary of the *technē* itself, with works which describe the constitution of the art as a whole, and in the context of the other *technai* too, for this is the point from which to commence its break down – *dialysis* – into its part and provinces, for definition and description.¹⁰⁴ *On my own opinions* also selects a distinct set of fundamental issues with which to open.

Whatever the precise details, however things work out exactly, Galen is in each case applying, attempting to apply, a logical, orderly, method. In his mind, moreover, this type of systematic approach to things, working from and through first principles, is Greek. It derives from a set of general Greek intellectual values, and has, more specifically, been forged through his engagement with the greatest figures of Greek thought: Plato, Hippocrates and Aristotle, as well as Chrysippus and Epicurus. It possesses, moreover, a kind of timeless truth, an absolute and abstract validity, that contrasts with the mess, the errors, of the Roman present. If, then, on a basic structural level in his works, Galen's idea of good order closely resembles the Roman imperial order; on the higher, more conceptual, level of the *iatrikē technē* itself, these works are to be ordered according to Greek ideals, however hard that may be.

Once again, however, there is no contradiction between the two. The timeless Hellenic truth is, even on Galen's reckoning, a participant in the present Roman mess, albeit a lamentably neglected and downtrodden one; and many scholars of the 'Second Sophistic' would go further, figuring it, in its very timelessness, as a creation of Roman rule.¹⁰⁵ Galen's ideal iatric order nestles neatly within, as much as it transcends, the overarching architecture of Roman power. Space for the *technai*, the *artes*, had been established quite early on in Rome's imperial endeavours; a contested space in many ways, but productively rather than problematically so.¹⁰⁶ All the way through, then, in all his approaches to organising and presenting knowledge, Galen

¹⁰³ Gal. *Ord. lib. prop.* 1–2 and 5 (*SM* II 82.16–84.10 and 90.14–17); *Ars med.* 37.14 (392.9–12 Boudon). For further discussion of this plurality see Mansfeld (1994) 117–26.

¹⁰⁴ Gal. *Ars med.* 37.6 (388.4–8) (Boudon (ed.) (2000)).

¹⁰⁵ So Swain (1996), 65–100; and see also, e.g., Bowie (1974).

¹⁰⁶ Varro's *Disciplinae* and Celsus *Artes* testify to this establishment, not to mention the proliferation of technical treatises in both Greek and Latin under the Empire.

remains in the Roman Empire; but this is a dynamic and diverse domain, a complex cultural formation as well as a particular political structure, and the two cannot be separated. Which is to return to the imperial interplay between abundance and control, both for Galen and Rome. Both end up striking a similar balance between the two, exerting their control through formally similar mechanisms, imposing an order that allows plurality but not chaos. So, Galen's writing, the various systematisations he proposes and enacts within, and of, his huge literary output, works for the Empire as much as the Empire works for him.