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PARCHMENT CODICES IN A NEW TEXT OF GALEN*

The *Περὶ Ἀλυπίας* ('On Consolation From Grief', henceforward *PA*) of Galen, recently rediscovered in a fifteenth-century manuscript in a monastery in Thessalonica, contains a wealth of information for the scholar of Roman libraries and books.[1] The work, a treatise on the avoidance of the grief contingent upon loss and suffering, begins by listing the losses suffered by Galen himself in the fire of AD 192. The fire destroyed the Templum Pacis, a series of warehouses and storerooms, and the libraries on the Palatine hill. As Galen had spent much effort copying books from these libraries, and had then deposited his copies in the warehouses that also burned, his work was lost beyond the possibility of recovery.

Among the details of the books and buildings destroyed are important clues to answering complex questions of the topography of the upper Sacra Via and the functioning of Roman imperial libraries.[2] There are also new pieces of information that add to our understanding of the form of the book in the Roman world.

One such is Galen's discussion of the form of a lexicographical work he had written. It was in two parts, on Attic vocabulary in old comedy and prose writers. The books on comic vocabulary perished in the fire but those on words from prose writers had by chance already been sent ahead to Campania, where Galen was planning to spend the summer (and where all his books were due to have been sent within a couple of months, had the fire not destroyed them).[3] This work, he

* I am grateful to colleagues who have read this article in draft and offered their comments: Helen King, Pier Luigi Tucci, Vivian Nutton, Laurence Totelin.

[1] The text is difficult, and perhaps corrupt in places, and thus far has only been accessible in microfilm. I use here the recent *editio princeps* published by V. Boudon-Millot, 'Un traité perdu de Galien miraculeusement retrouvé, le *Sur l'inutilité des se chagriner*: texte grec et traduction française', in V. Boudon-Milot, A. Guardasole, and C. Magdelaine (eds.), *La science médicale antique. Nouveaux regards. Études reunies en l'honneur de Jacques Jouanna* (Paris, 2007), 73–123. A new Budé edition is newly released at the time of going to press (V. Boudon-Millet and J. Jouanna (eds), *Galien, Oeuvres Tome 4 'Ne pas se chagriner'* (Paris, 2010). A revised version by I. Garofalo et al. is due for publication in *Galenos* 4 (2010), and Vivian Nutton's translation will appear in 2011 as part of the first volume of a series of English translations of Galen; I am grateful to Prof. Nutton for helpful suggestions with the text and translation.

[2] See, for example, P. L. Tucci, 'Galen's Storeroom, Rome's Libraries, and the Fire of AD 192', *JRA* 21 (2008), 133–49.

[3] Gal. *Περὶ Ἀλυπίας* (*PA*) 20.

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tells us, was in 'forty-eight large volumes, of which some, with more than 4,000 lines, will perhaps have to be divided in two'. He then goes on to say that his works in progress were 'in two kinds of form; for some were made well proportioned so as to be useful to others, while others were for me alone':

ἐν βιβλίοις ὄντα τεσσαράκοντα ὀκτὼ μεγάλοις ὧν ἔνια διελεῖν ἴσως δεήσει δίχα πλειόνων ἢ τετρακισχιλίων ἐπῶν ἐξάριθμον ἐχόντων. … διττῶν κατ' εἶδος ὄντων · ἔνια μὲν γὰρ οὕτως ἐγέγονει σύμμετρα ὡς καὶ τοῖς ἄλλοις εἶναι χρήσιμα, τινὰ δὲ ἐμοὶ μόνῳ…

Gal. *PA* 28–9

Here Galen, a man thoroughly used to reading and writing books and a well-known commentator on bibliographic practice,[4] tells us something useful about his idea of the convenient maximum size of a Roman *volumen*, setting that maximum for a scroll at around 4,000 lines.[5] A single volume containing more than this might therefore be split into two. As Galen says, talking of his own compositions, copies for publication need to be *σύμμετρα* ('well proportioned') in order to be *χρήσιμα* ('useful') to readers: it appears that 4,000 lines is the largest size of book that would fit this specification. Galen's 4,000-line scrolls, divided up into the usual columns of twenty-five to forty-five lines, would indeed be bigger than the average Roman book, and probably reflect the disposition of his own draft text on outsize, not-for-publication scrolls, as he says; the subdivided, 2,000-line texts would be closer to the standard, more practical size.[6] Galen is therefore contemplating reworking the copies he has sent to Campania to make them more convenient to readers. The division could have been made by recopying onto two smaller rolls or by physically dividing the bulky 4,000-line scrolls; the verb *διαιρέω* admits of both meanings. This is a useful insight into the processes of reading and writing for circulation in Galen's Rome.

[4] This is a common aspect of Galen's writings. It is reflected by an interesting observation made by López Férez, who notes that Galen's corpus uses the word *ἀντίγραφον* ('manuscript') 178 times, far more frequently than other comparable authors (J. A. López Férez, 'Galeno, lector y critico de manuscritos', in A. Garzya [ed.], *Tradizione e ecdotica dei testi medici tardoantichi e Bizantini. Atti del Convegno Internazionale [Anacapri 29–31 ottobre 1990]* [Naples, 1992], 197–209).

[5] I take *βιβλίοις* to mean scrolls, as Galen and his readers surely did. The fact that their contents are counted in lines also suggests this format.

[6] Plin. *HN* 13.77 mentions a twenty-sheet scroll of about 6–8 metres in length. A normal scroll would hold about as much as Galen proposes for his subdivided scrolls – a book of Thucydides or a play of about 1,500 lines: H. Maehler, 'Books, Greek and Roman', in S. Hornblower and A. Spawforth (eds.), *OCD*, third edition (Oxford, 1996), 250.

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More importantly, the rediscovered *Περὶ Ἀλυπίας* also adds to our understanding of the development of the parchment codex. There are already several well-known references to the use of parchment as a writing surface and in particular to parchment notebooks or *membranae* for note-taking and literary composition. Horace mentions parchment as a writing surface for poetic drafts, Persius recommends the parchment notebook to students, and Quintilian discusses its use.[7] By the end of the first century AD the parchment codex had begun to be used for published literary works too, albeit novelty, slimline editions, as Martial's famous epigrams show.[8] After this point, however, the trail goes cold. Martial's publisher, Secundus, and his parchment travelling editions receive no further mention, and the great literary figures of the second century AD do not seem to have regarded the parchment codex as a literary form. Martial's interesting testimony has therefore seemed difficult to connect to the wider history of the development of the codex; finds in Egypt suggest that, as a book form, the 'codex scarcely counted'[9] until the third century AD, leaving an awkward gap between its first attestation as a novelty gift in Flavian Rome and its eventual adoption as a serious vehicle for literature.

Against this background the new information in Galen is valuable, since it tells us about the circulation of various specialist parchment codices in Rome and the Roman world in the second half of the second century AD, and that these books were credited by their owners with a high intellectual value and a very high nominal financial worth. This helps us fill the gap in our understanding of the developmental history of the codex book form.

The codices described here by Galen were not published works, but one-off pharmaceutical collections, and clearly part of a fairly well-known medical tradition (for which see below). However, these were more than just low-status notebooks: they were highly prized objects whose provenance and contents moved Galen to describe them carefully among his list of treasured possessions lost in the fire – in fact, he implies that they would have been the most distressing loss to him of the entire conflagration, had he permitted himself distress. Many books have burned, he says,

[7] Hor. *Sat.* ii.3.1–2, *Ars P.* 386–90; Pers. *Sat.* iii.10–11; Quint. 3.31. Cf. C. H. Roberts and T. C. Skeat, *The Birth of the Codex* (London, 1987), 15ff.

[8] Mart. i.2 and xiv.184, 186, 188, 190, 192. The works contained in these parchment *membranis* or *pugillaribus* are by Martial himself, Homer, Virgil, Cicero, Livy, and Ovid respectively.

[9] Roberts and Skeat (n. 7), 37. Cf. L. D. Reynolds and N. G. Wilson, *Scribes and Scholars*, second edition (Oxford, 1974), 31.

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But not even this distressed me. What, then, you'll say, could be an even greater source of distress than all that you've said? I shall tell you. I was sure that I owned more remarkable drug recipes than anybody else in the entire Roman world. Gal. *PA* 31

It is these two collections of drug recipes that filled the parchment codices lost in the fire. They represent a useful new category of book, something to put in the gap between the tough but low-status parchment notebook and the prestigious literary scroll. Their value to Galen is evident from his description, mournful despite itself, of what he has lost, as well as from the large amount spent on their compilation and the fact that he had deposited them among his most prized possessions in what he had believed to be a secure and fireproof warehouse.[10]

Galen gives a clear indication of both the material and the format in which these recipe collections were written out. He notes that the first of these sets of recipes was 'preserved with the greatest care in two parchment codices' (*κατὰ δύο διφθέρας πυκτάς ἐφυλάττοντο μετὰ πάσης ἀσφαλείας*).[11] The phrase *πυκτίδι διφθέρᾳ* ('parchment codex') is used by him elsewhere to refer to a similar codex recipe collection,[12] suggesting that by his time it had become the standard Greek expression for this book form, replacing the Latin borrowing *μεμβράνας* used by the author of the Second Epistle to Timothy several decades earlier.[13]

The second recipe collection is described only by the word *διφθέραι*, which Galen uses three times (34–5) before going on to describe the entire collection of his parchment recipe books, including the aforementioned codices, by the same word, implying that all these books were in codex format; the description of the first collection, bound 'with the greatest care', merits the extra word *πυκτάς* but *διφθέραι* serves to describe the collection as a whole.

We have already seen that the parchment notebook is a fairly well-known part of the imperial Roman writer's equipment, but the details given by Galen add to our understanding of the ways in which such books were put together, preserved, used, and circulated. For one

[10] Gal. *PA* 8–9. Their worth consists largely in their admirable provenance, which Galen carefully sets out. Elsewhere he complains of the unreliability of other pharmacological collections, which have been badly copied or altered by readers: *De antidotis* 1.5 (Gal. Kühn xiv.31).

[11] Gal. *PA* 33.

[12] Gal. Kühn xii.423.

[13] 2 Timothy 4:13. Cf. *Cod. Iust.* 4.21.16, 4.21.22.10.

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thing, these notebooks were not Galen's own private jottings but pre-existing, purpose-made collections coming from two separate sources: the first pair of volumes (the διφθέρας πυκτάς) was put together at great expense by 'a certain rich man' in Galen's hometown and passed by his heir to Galen. The other collection was left to Galen shortly after his arrival in Rome in AD 162 by Teuthras, an acquaintance, who had himself obtained them from another Pergamene doctor called Eudemus. This, together with a mention by Galen elsewhere of another, similar, parchment pharmaceutical notebook acquired by his doctor colleague Claudianus after the death of its owner,[14] gives us a total of three parchment recipe collections known to Galen, which had passed through the hands of at least seven individuals, circulating between Asia Minor and Rome: that is, they were not merely private notebooks but useful collections amassed, treated, and bequeathed as valuable objects.[15]

All three had passed through at least one change of hands after death and so presumably were made to last. Galen's description of the first pair of volumes certainly suggests a heavy-duty, costly binding, not least because the acquisition of the recipes it contained cost its collector, ἀνήρ τις πλουσίος ('a certain wealthy man'), 100 gold pieces.[16] This was an astonishing fortune to spend on any sort of book, reflecting the value of the recipes but with obvious implications about the quality of the book used to house them, as Galen makes clear: we can compare Gellius' record of the price of twenty *aurei* commanded by an antiquarian volume of Virgil in the Sigillaria bookshops.[17] Galen's rich collector would have been able to afford any book form he wanted, and the choice of stoutly bound parchment codices is therefore significant.

Was the parchment codex format chosen independently for these three important medical recipe collections for a particular reason? The circumstance of the production of these books might suggest that they were, at least in origin, collections of separate documents bound together into single volumes. Galen does not quite say this of any of the sets, but it is possible from his description that the codex format permitted documents from disparate sources to be bound together.

[14] See above, n. 12.

[15] Compare the elder Pliny's opisthograph notebooks, reputedly valued at 400,000 HS in his own lifetime: Plin. *Ep.* iii.5. We might also consider the *commentarium* of medical recipes compiled by Cato and known to Pliny: *HN* xxix.15–16.

[16] Gal. *PA* 32.

[17] Gell. *NA* 2.3.5.

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Of the first collection, Galen says that the rich collector purchased drug recipes that were well regarded by both current and past doctors, implying selection from a wide variety of different sources, before binding them carefully into two parchment codices.[18] The second collection of parchments, given to Galen by the late Teuthras, 'were brought together into one place from pretty well the entire world through his [Eudemus'] travels before he settled in Rome'.[19]

In each case, the collection of separate recipes through widespread research might well have produced a mass of papers or notebooks that could be tidied by binding or copying *ἐν ἑνί* ('into one'). In fact the care and cost bestowed on these collections suggests that they would have been recopied into purpose-made parchment books, but this could have been done over time as they were collected and would still reflect the piecemeal nature of their accumulation. If the original compilers of the collections started to copy the recipes into the parchment books eventually acquired by Galen while they were still at the collecting stage, we might imagine that blank pages were included for future recipes, or sewn in when needed (another advantage of the codex), or that new recipes were copied into margins and borders as the book filled up, as was common in Byzantine pharmacological manuscripts and known in medical papyri such as that described below. Each collection would therefore, in origin, have been composed more as a working notebook or commonplace book than as a through-composed text – and the finished version must have been something rather similar, but well made and bound with care: a reference work designed for dipping into rather than a literary work intended for reading through from start to finish.

We can imagine what these books looked like and how they were laid out by considering other known collections of medical writings by Galen and his successors. The Michigan medical codex (P.Mich. inv. 21), a papyrus codex whose scripts date it to the fourth century AD, is 'the finest and most copious example we have of this activity

[18] *…μὴ μόνον ὅσα κατὰ τὴν οὐσίαν ἦν εὐδοκιμοῦντα παρ' ἑκάστῳ τῶν νῦν ἰατρῶν, ἀλλὰ καὶ τῶν παλαιῶν ἐξωνήσασθαι. τούτων δὲ τῶν φαρμάκων πάντων αἱ γραφαὶ κατὰ δύο διφθέρας πυκτὰς ἐφυλάττοντο μετὰ πάσης ἀσφαλείας* ('…he purchased not only what is well regarded by each of the present-day doctors but also those of the past. The written recipes for all these drugs were bound into two parchment codices with every care', Gal. *PA* 32–3).

[19] *καὶ αὗται δὲ αἱ διφθέραι ἐν ἑνὶ σχεδὸν ἐξ ὅλης τῆς οἰκουμένης ἦσαν συνηθροισμέναι διὰ τὰς ἐπιγενομένας ἀποδημίας αὐτῷ μεθ' ἃς ἐν Ῥώμῃ διετέλεσεν* (ibid., 35).

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[of pharmacological collection]'.[20] Its surviving fragments contain a collection of recipes for plasters and poultices ascribed to various doctors, several of whom had also been known to Galen.[21] The Michigan codex in its original form seems to have contained pharmacological recipes collected and copied out by a scribe, perhaps as a result of a collection and commission process similar to that described by Galen; the book's physician-owner subsequently added about twenty further recipes as marginal additions in what is presumed to be his own hand. In this process, 'new prescriptions are added; nothing seems to have been subtracted';[22] the project behind the book seems to have been one of selection, accumulation, and preservation, as with Galen's codices.

The format in which the prescriptions were presented in Galen's lost parchment codices is likely to have been similar to that seen both in his surviving pharmacological books and in medical papyri such as the Michigan codex. Here medical recipes are commonly presented in a four-part division with title (*προγραφή*), conditions for which the medicament was useful (*ἐπαγγελία*), list of ingredients with quantities (*σύνθεσις*) – the part most susceptible to textual corruption in poor copies, says Galen, explaining the high value set on these carefully compiled volumes[23] – and method of preparation (*σκευασία*).[24]

The physical layout of the books is harder to guess at. Galen tells us that they were written on parchment and very carefully bound, as we would expect for works of their intellectual and financial value. Very few codices of this date survive – hence the importance of this new testimony in Galen – but again we can compare later codices. The surviving pages of the Michigan codex, for example, are reconstructed by Youtie as having belonged to a cord-bound quire of thirty-two pages in a codex 14 cm wide and at least 17.5 cm high.[25] Within these pages, the pharmacological catalogues could have been organized in various ways: by type of medicament,[26] part of the body, or conditions to be

[20] A. E. Hudson, 'Introduction', in L. C. Youtie, *P.Michigan XVII, The Michigan Medical Codex*, (Atlanta, GA, 1986), xxv.

[21] Dionysius, Heras, Azanites, Hygienus, and Telamon: see ibid., xxiv.

[22] Ibid. xix.

[23] See e.g. Gal. *De antidotis* 1.5 (Kühn xiv.31); L. M. Totelin, 'Galen's Use of Multiple Manuscript Copies in his Pharmacological Treatises', in L. Taub and A. Doody (eds.), *Authorial Choice, Authorial Voice. Greco-Roman Scientific and Medical Writing* (Trier, 2009), 81–92.

[24] See C. Fabricius, *Galens Exzerpte aus älteren Pharmakologen* (Berlin and New York, 1972), esp. 24–30.

[25] Youtie (n. 20), 1. Cf. E. G. Turner, *The Typology of the Early Codex* (Philadelphia, PA, 1977), 55ff.

[26] A method Galen himself used: see e.g. Kühn xiii.116–227.

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treated. Often in such collections, 'lines and spaces separate recipe from recipe, since in recipe catalogs it is imperative for users to know exactly where one recipe finishes and a new one begins'.[27] An index, not attested here by Galen but known to have been used in other collections of medical recipes, would have made consultation easier.[28]

All in all such books, with their sturdy bindings, easy to leaf through pages, and regular, formulaic, clearly laid-out recipes, would have made a handy source of reference for a doctor and medical writer. The fact that very highly prized 'deluxe' codices of this sort were passed between doctors and kept among the most prized possessions of one of the second century AD's leading public intellectual figures is an interesting addition to our knowledge of the development and use of the codex as a book form.

We can turn, then, to Galen's description of his use of these books. He describes his own working practices thus: 'And so if someone had a remarkable drug, I could get hold of it without difficulty by giving back two or three similar ones in return from these collections.'[29] That is, Galen kept these books in his private library (destroyed in the blaze of AD 192), using them as a mine for recipes as and when he needed them. He does not say that he read the books through from start to finish, as he would a literary scroll, but that he selected items from them on an ad hoc basis: they were a collection of discrete items instead of a single composition designed to be read in order.

Parchment, expensive but more hard-wearing than papyrus, especially in the folds required by the codex form, was the material best suited to such books; it may be significant that Galen refers to them with the single word *διφθέραι*, as if the material had become synonymous with the book form.[30] Because these collections were for private consultation, not publication, there was no obligation to use the prestige form of the book, the *volumen*; function could in this case be allowed to determine form. If Galen's use was typical, they were intended for intermittent access when the reader wanted to look something up, and for such work the codex, of course, was ideally suited; with no need for cumbersome unrolling and rerolling, the

[27] Hudson (n. 20), xx.

[28] Cf. Scribonius Largus, *Compositiones*, with its prefatory index and anatomically-ordered division into sections and subsections.

[29] *ἐκ τούτων οὖν τῶν παρασκευῶν εἴ τίς τι τῶν θαυμασίων εἶχε φαρμάκων ἐλάμβανον οὐ χαλεπῶς ἀντιδιδοὺς δυὸ καὶ τρία τῶν ὁμοίων* (Gal. *PA* 36).

[30] Cf. Herodotus 5.58; elsewhere Galen uses the word *βιβλία* when he means ordinary books: see above n. 5.

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reader could turn to the page he wanted, copy out the reference, and close the book. This was the advantage that would eventually enable the codex to triumph over the scroll, but that final dominance would not come about for well over a century. In the new text of Galen, then, we see an important early testimony to the existence of high-status parchment codices and a valuable indication of one of the key advantages of the codex book form over the scroll, attested by one of the late second century's greatest experts in the business of reading and writing.

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