others published in the *Mémoires* of the Centre Jean Palerne, Saint-Étienne; M. Formisano, *Tecnica e scrittura: le letterature tecnico-scientifiche nello spazio letterario tardolatino* (Rome, 2001); and Pamela O. Long, *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (Baltimore, 2001). J. W. Humphrey, J. P. Oleson, and A. N. Sherwood have compiled a sourcebook of translations: *Greek and Roman Technology: a Sourcebook* (London and New York, 1998). In *Titel und Text* (Berlin and New York, 1999) Bianca Schröder shows how new devices of presentation made technical works more accessible. Anyone who shares my interest in transmission will miss Bischoff's article of 1971 'Die Überlieferung der technischen Literatur', reprinted in his *Mittelalterliche Studien* III (Stuttgart, 1981), pp. 277–97.

In short, this is an ambitious book that will be hard to ignore but less hard to challenge either in outline or in detail.

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DIOCLES OF CARYSTUS

P. J. VAN DER EIJK: *Diocles of Carystus. A Collection of the Fragments with Translation and Commentary. Volume One: Text and Translation.* (Studies in Ancient Medicine 22.) Pp. xxxiv + 497. Leiden, Boston, and Cologne: Brill, 2000. Cased, €107. ISBN: 90-04-10265-5. *Volume Two: Commentary.* (Studies in Ancient Medicine 23.) Pp. xlii + 489. Leiden, Boston, and Cologne: Brill, 2001. Cased, €89. ISBN: 90-04-12012-2.

Although Diocles of Carystus (fourth century B.C.E.) was one of the most celebrated doctors and medical writers of antiquity, until recently he had not been the object of much scholarly effort. The main reason for this lack of interest may be that not one of his original writings has survived in its entirety, or even in sizeable sections. Today we can only approach Diocles obliquely, through quotations or general mentions in much later authors, e.g. Celsus, Galen, Soranus, Caelius Aurelianus, or the Anonymus Parisinus. There had been only two attempts at producing collections of these fragments: by Fränkel in 1840 and, more importantly, by Wellmann in 1901. Appearing nearly a century after the latter (and exactly a century, in the case of the commentary), the present two volumes represent the first comprehensive collection of the fragments of Diocles—containing over fifty more than its predecessor—with a translation in a modern language.

Some of the fragments were not available to Wellmann because either new MS evidence for existing sources or altogether new sources have come to light only in the century between the two editions. However, in part, the discrepancy in numbers arises also from the fact that Wellmann included only passages in which Diocles is mentioned by name. The present collection, on the other hand, contains also 'unnamed' material—marked as such—where the statements demonstrably refer to Diocles as one of a group of people, mentioned either by name or by general terms such as 'the ancient doctors'. Two concordances at the end of vol. I make it clear which fragments have been added and where, e.g., Wellmann had split fragments to suit his pattern.

The two editions differ also in the arrangement of the fragments: Wellmann ordered

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them by the treatise from which he assumed that they were taken, a method based to a large extent on conjecture, since in most cases the provenance is not explicitly stated. Here, the fragments are arranged by topics, e.g. diseases, therapeutics, dietetics, etc. Much greater importance than in the earlier collection is given to the context of a fragment, and different type sizes have been used to distinguish between the fragment proper and the context. Although this is rather hard on the eyesight, the method works well and is very helpful in locating the passage that actually refers to Diocles. (In vol. II, the commentary on each fragment contains a brief resumé and some information on the larger context within the source work.) Given the greater range—and in some cases, revised editions—of the source material, there are also deviations in the texts of fragments which feature in both collections (these are indicated in the apparatus). In addition to Greek and Latin material, v.d.E.'s edition contains also some material from the Arabic version of Galen's commentary on the Hippocratic *Airs Waters Places*.

The introduction is followed by a list indicating the arrangement of the fragments grouped under the topics of life, methodology, anatomy, physiology, embryology, diseases, therapeutics, gynaecology, and dietetics, with a final section containing four fragments on a variety of topics. Here, too, the unnamed and dubious fragments are clearly marked, and some of the headings are accompanied by the title of the work of Diocles to which they refer.

According to the extant sources, Diocles was a prolific writer who wrote at least twenty works (some of which were in four or more books). Apart from, or within, the areas mentioned above, he also wrote on subjects as varied as prognostics, bandages, surgery, regimen in health, foods and wines, herbs, olive oil, drugs, poisons, sexuality, and perhaps also mineralogy and meteorology. It appears that his medical ideas were based on a general theory of nature, and that he also wrote on medical topics for a wider audience. It is likely, too, that he was familiar with several of the Hippocratic writings, as well as with Aristotle and Theophrastus, who may also have known him.

The fragments, with facing English translation, are preceded by a list of the titles of works by Diocles as they can be found in the sources, in several cases followed by a question mark or the word 'dubium'. Titles of works tend to appear in a variety of wordings and it is often impossible to be certain which was the title used by Diocles. Also, given the frequency of titles of treatises beginning with 'about', it is not always obvious whether a source author is referring to a title or merely to Diocles' ideas on a particular subject.

It would not be possible, within the scope of a review, to describe all the fragments—there are 241, some of which consist of several parts (e.g. 13a–g)—so brief summaries of a few subject areas will have to suffice.

None of the fragments in the section on Diocles' life offer anything that amounts to information about him. The sources merely reiterate that he was an outstanding and famous doctor, usually listing him just after Hippocrates, without providing any facts about his life, training, or work. The potentially most interesting fr. 7, which puts him among the executors of Strato's will, is unfortunately marked 'dubium'. As for Diocles' approach and methodology, frs 13a–g at least agree that he was a Rationalist/Dogmatist, while two of the three Galen passages only mention Diocles in the context of Galen's polemics against the Methodist Thessalus. Fr. 16 is more specific: here Diocles, together with Diogenes of Apollonia, is attributed with the view that the effects of food and drink can only be ascertained by experience.

According to the first fragments concerning anatomy, from Galen again, Diocles was the first to produce a written work on the subject. The majority of the fragments in this section relate to the anatomy of the female reproductive organs, but this need

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not imply that such a bias already existed in Diocles' work. In particular, the sources refer to the 'horns' in the uterus; it is not entirely clear, though, what he meant by the term. Frs 24b and c tantalizingly suggest that Diocles undertook the dissection of mules, basing his ideas on human anatomy on structures found in animals.

There are numerous fragments (25–48) from Diocles' writings on physiology and embryology. He is associated with four-humour theories, and various sources (including Tertullian) discuss his opinions on blood, digestion, the relation between body and soul, and reproduction.

The largest amount of material is to be found in the section on diseases, covering Diocles' views on general pathology, diagnosis, prognosis (e.g. the idea that disease occurs through imbalance, critical days), specific pathology, symptomatology, and treatment. Among the many diseases mentioned are phrenitis, mania, synanche, hydrophobia, and jaundice. Caelius Aurelianus criticizes Diocles' treatment of epilepsy (fr. 99) and tetanus (fr. 100): in both cases he finds Diocles' treatments too aggressive—diuretics, emetics, and sternutatories for the former, and again diuretics, sharp clysters, and wine in the latter.

The thematically related topic of therapeutics follows in the next section. The fragments give one an idea of the large variety of subjects on which Diocles wrote: some composite drugs are attributed to him, and he is cited in connection with, for example, venesection, emetics, bandages, and the reduction of dislocations. The fragment most familiar to the historian of ancient medicine may well be fr. 167, from Celsus' description of the treatment of arrow wounds—the 'spoon of Diocles', named after its inventor. Celsus gives no indication whether this instrument was described in *In [the] Surgery* or elsewhere. The treatise is the work from which the source quotes in fr. 161, a splendid example of terminological confusion: Erotian lists a dozen different interpretations of the word *ambê*. Diocles' explanation in particular seems to conflict with all the others, who at least agree that it is convex.

It is certain that Diocles also wrote a work about women's diseases, and several fragments may be taken from this. Apparently he discussed the age of the onset of the menopause, fertility, difficult labour, how to detect imminent miscarriage and various gynaecological disorders, such as the much-discussed suffocation of the uterus.

If the number of fragments is anything to go by, dietetics and the powers of foodstuffs were of particular interest to Diocles. The name of one treatise, *Matters of Health for Pleistarchus*, is attested by the sources, and in several fragments Diocles is represented as an expert not only in healing the sick, but also in the preservation of health. Oribasius quotes (fr. 182) at great length (verbatim?) from Diocles' advice on a healthy lifestyle, covering an entire day from waking up in the morning to going to bed in the evening. Nothing is left to chance, and the text even suggests the most adequate position for sleeping. (Although the passage mentions having other duties, it is quite clear that the intended recipient of the advice can afford to spend all day looking after his health.) A 'dubious' letter to Antigonus on the same topic is quoted by Paul of Aegina (fr. 183a) and mentioned in fr. 183b, but there is no conclusive evidence that would make it possible to either accept the letter as authentic or reject it as pseudepigraphic. Fr. 184, again from Oribasius, provides detailed instructions for keeping healthy while travelling—on foot, since a walking-stick is mentioned. This section of fragments in particular provides glimpses of everyday life beyond medical theories and practice.

Apart from the concordances and the usual list of abbreviations and bibliography, the two volumes also contain an almost extravagant variety of indices: of sources with a list of editions, of Greek as well as Latin words used in verbatim fragments, of major

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Greek and Latin words used in the testimonia, and a general index to the translation, all in vol. I. A general index to the introduction and commentary and one of passages cited conclude vol. II. The various indices of Greek and Latin terminology are particularly useful to anyone interested in ancient medical vocabulary, philologists as well as medical historians. It is difficult, in a review, to do justice to the scholarly thoroughness and sheer hard work that were doubtless needed to produce these excellent volumes. (It should be pointed out, for example, that all of the translations are v.d.E.'s; all too often, authors merely re-use other scholars' translations.) Despite the author's modest disclaimer, this will be the definitive edition, at least for a long time.

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A NEGLECTED WORK OF GALEN

C. OTTE: *Galen:* De plenitudine. (Serta Graeca 9.) Pp. x + 131, pls. Wiesbaden: Dr Ludwig Reichert Verlag, 2001. Cased, €48. ISBN: 3-89500-160-0.

The introduction explains that this volume of the series Serta Graeca is based on O.'s Ph.D. thesis; it is an edition, with translation and notes, of a hitherto largely neglected work by Galen, *De plenitudine.* The treatise's authenticity is beyond doubt, since eleven (or twelve, if *Ars med.* is not spurious) other, doubtless authentic, works mention it. Combined with mentions of some of Galen's other works in *De plenitudine*, these references help with its dating to approximately the 170s. O. considers it one of Galen's pathological writings.

The complete text of *De plenitudine* can be found in five MSS, none of which is older than the fourteenth century. As for printed editions, O.'s is the first separate edition of the work, but it is contained in the four complete editions of Galen's work, i.e. the Aldine of 1525, and the Basle, Chartier, and Kuhn editions, the first being the basis of all subsequent editions. In addition to these, O. also consulted the marginalia by Scaliger and Cornarius. This is the first translation into a modern language; only post-1528 Latin translations are extant, the medieval Latin as well as Arabic and Syriac ones not having survived.

The *plenitudo* in the Latin title translates the Greek πλῆθος, a concept which, Galen characteristically claims, is not well understood by other doctors. The core of Galen's theory is that there are two types of πλῆθος: one that occurs in relation to *dunamis*, with 'heaviness' (βάρος) as its symptom. The other is related to space and manifests itself in tension (τάσις). Galen states explicitly that the work is not meant for beginners, and that some preliminary knowledge of *plêthos* is required.

In Chapter 1, Galen establishes *plêthos* as the topic of the treatise, showing in which ways other doctors' views are erroneous, and distinguishing between the two kinds of *plêthos*. The discussion of others' errors continues in Chapter 2, with arguments against those of the Dogmatists who only recognize *plêthos* in relation to *dunamis*. Here, Galen spells out that this first type is obvious through heaviness, while the other's symptom is tension. In the next chapter, after a brief swipe at those who expect basic information about *plêthos* here, Galen refers to other writings, where this can be found, and ends the chapter in polemical statements against the Stoics and Herophileans.

Chapter 4 consists of a slightly convoluted explanation of 'heaviness' as an affliction of the faculty of perception (δύναμις αἰσθητική), the latter varying in strength

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