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Author(s): I. M. Lonie

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THE CNIDIAN TREATISES OF THE *CORPVS* *HIPPOCRATICVM*

GALEN in a celebrated passage¹ remarks that there were three 'choirs', *χοροί*, in early Greek medicine: the choirs of Cos, of Cnidus, and of Sicily. The word is vague and suggestive, and we do well to keep it so. If we look in the Hippocratic Corpus for schools of medical theory, with distinct sets of doctrine marked off clearly from the doctrines of rival schools, we shall be lucky indeed if we can find them, and, having found them, succeed in convincing others of their existence. But we shall find, now and again, an individual voice proclaiming itself from among its impersonal surroundings with clarity and vigour: some treatises in the collection have their author's personality stamped on them as distinctly as on a work of art. And we shall find *χοροί*: groups of writings which are akin to each other in their general attitude towards medicine, and to some extent in their theory and in their style and vocabulary. We may also find, within these larger groups, smaller groups of works, two or three or four, which clearly have a more precise and concrete relation to each other. One of these groups is formed by those works which are generally known as Cnidian.

The term 'Cnidian' is an extremely elastic one. It was stretched to its furthest extent by Ilberg,² who included among the work of the school no less than twelve treatises of the Hippocratic collection. We find the opposite extreme in L. Edelstein, who admits only three: *π. διαίτης ὀξέων* I and II; *π. νούσων* II; *π. τῶν ἐντὸς παθῶν*.³ L. Bourgey accepts only two: *π. νούσων* II and *π. τῶν ἐντὸς παθῶν*.⁴ The question of the precise number of the Cnidian works, without being altogether idle, is perhaps unanswerable: one is faced with the problem of not being able to decide what Cnidian doctrine is, and what individual variations are compatible with it, until one has decided which works can rightly be called Cnidian; and not being able to call any works Cnidian until one has a clear idea of Cnidian doctrine. We have, it is true, some external evidence, but in itself it is not of much help. Applied rigorously, as by Edelstein,⁵ it means that we can call only three treatises Cnidian, and this seems to me, and I should imagine to most readers of the Corpus, an absurdity. Although one cannot accept all Ilberg's attributions, one must agree with the correctness of his general assumption; there are in the collection a number of works which are strikingly similar, in form and in content, and this similarity is particular, extending as it does to verbal parallels, as well as general. Each of these works has unmistakable affinities with two or more of the other works in the same group, in such a way that not one of them shows

¹ X, 6 K.

² J. Ilberg, 'Die medizinische Schrift über die Siebenzahl und die Schule von Knidos' (*Festschrift für Lipsius* [1894], pp. 33 ff.); 'Die Ärzteschule von Knidos' (*Berichte über die Verhandl. d. Sächs. Akad. Wiss.* lxxvi. 3 [1924]).

³ *Περὶ ἀέρων und die Sammlung der hippokratischen Schriften* (Berlin, 1931), p. 159

and note.

⁴ *Observation et expérience chez les médecins de la collection hippocratique* (Paris, 1953), pp. 50-53.

⁵ Op. cit., p. 159 n.: 'Zur sicheren Identifikation als knidisch reicht nur das objektive Moment der Zählung der Krankheiten aus.'

throughout a dependent relation to any other *single* work. In trying to unravel these affinities, one feels that one is confronted with a ball of string which has neither beginning nor end. To explain such a peculiar and exasperating state of affairs, only Ilberg's hypothesis of a common stock, itself lost, to which all these works are variously related, will serve. One must surely go so far with Ilberg.

This common stock Ilberg found in the *Κνίδιαι γνῶμαι*,¹ criticized by the author of *π. διαίτης ὁξέων*, and ascribed by Galen to Euryphton.² The grounds for Ilberg's belief were the coincidence of the one fragment which Galen quotes from the *Κνίδιαι γνῶμαι* with *π. νούσων* II. 68 (VII, p. 104 L.), and the remarkable correspondence of some of the subdivisions of diseases which Galen quotes, as characteristic of the Cnidian school, from the *Κνίδιαι γνῶμαι*, with the subdivisions which appear in *π. τῶν ἐντὸς παθῶν*. At the most, such correspondences could only show that the *Κνίδιαι γνῶμαι* were related to the other treatises, not that the relation was one of priority. But Ilberg had in mind the implications of the treatise *π. διαίτης ὁξέων*. The author of this work begins³ his essay by alluding to the composers, οἱ συγγράψαντες, of the *Κνίδιαι γνῶμαι*, whose inadequacies he criticizes. He then remarks that οἱ ὕστερον ἐπιδιασκευάζοντες showed some improvement (ἰητρικώτερον δὴ τι ἐπήλθον). Galen in his commentary on the work glosses the word ἐπιδιασκευάζειν as follows: ἐπιδιασκευάσθαι λέγεται βιβλίον ἐπὶ τῷ προτέρῳ γεγραμμένῳ τὸ δεύτερον γραφέν, ὅταν τὴν ὑπόθεσιν ἔχον τὴν αὐτὴν καὶ τὰς πλείστας τῶν ῥήσεων τὰς αὐτὰς τινὰ μὲν ἀφηρημένα τῶν ἐκ τοῦ προτέρου συγγράμματος ἔχῃ, τινὰ δὲ προσκείμενα, τινὰ δ' ὑπηλλαγμένα (C.M.G. V. 9. 1, p. 118). If Galen's gloss is appropriate to the Hippocratic use, the original *Κνίδιαι γνῶμαι* were improved not by the sort of marginal addition of which we can see the traces clearly enough in other Hippocratic works, and which were perhaps made by individual owners of the text, but by a substantial remodelling, undertaken under the school's authority, to produce a new work which superseded rather than expanded the old. The original edition, however, was available to the author of *π. διαίτης ὁξέων*, a situation which at least suggests that he is working in Cnidus, with access to the library there. Edelstein indeed goes so far as to suppose that the author was actually a member of the Cnidian school, although a somewhat recalcitrant member.⁴ But whether Cnidian or not, we must in any case assume that he has access to the fountain-head of Cnidian doctrine,

¹ e.g. *Berichte über die Verhandl. d. Sächs. Akad. Wiss.* lxxvi. 3 (1924), 9: 'Die Abhängigkeit der genannten sechs Bücher [i.e. *π. νούσων* I–III, *π. παθῶν*, *π. τῶν ἐντὸς παθῶν*, and *π. ἐβδομάδων*] von den *Κνίδιαι γνῶμαι* steht außer Frage, ihre nahe Verwandtschaft wird durch viele Parallelbilder von Krankheiten bewiesen, die oft wörtliche Übereinstimmung zeigen.'

² XVII A, 886 K.

³ For the unity of *π. διαίτης ὁξέων* 1–3 with the remainder of the treatise, see O. Regenbogen, 'Probleme um die hipp. Schrift *De Victu Acutorum*' in *Studies Presented to D. M. Robinson II* (St. Louis 1953), pp. 624 ff.

⁴ Cf. Edelstein, *op. cit.*, pp. 154 ff. Among the reasons which E. advances is the author's

acceptance of πολυσχιδή τῶν νούσων (I, p. 110, 8 Kuehlewein); that passage, however, is ambiguous, and a number of interpretations are possible. Against that of Edelstein, see, e.g., H. Diller, *Gnomon* xiv (1938), 303. In any case, the author's attitude to medicine and to the nature of disease is fundamentally different from what we can reasonably conjecture of the attitude of the Cnidian school; and in the second part of the treatise (on the genuineness of which see R. Blum, 'La composizione dello scritto ippocrateo *περὶ διαίτης ὁξέων*' [*Rend. d. Acc. d. Lincei* (1936), 39–84]) there are some striking correspondences in doctrine with *Epidemics* I and III, and *Epidemics* II, IV, and VI.

and that he is not wasting his time in the criticism of a secondary and derivative treatise. If then, as Ilberg supposed, there was a common stock for the Cnidian works, then the *Κνίδιαι γνῶμαι* were that stock. The works which certainly derive from it, the Cnidian works of the Hippocratic collection, are *π. παθῶν*, *π. νούσων* I, *π. νούσων* II. 1–11 and 12 ff., *π. νούσων* III, and *π. τῶν ἐντὸς παθῶν*. Beyond these works, any ascription is uncertain, even, I should be inclined to say, unlikely.

In the Cnidian treatises there are three ingredients: symptoms, treatment, and aetiology. Individual works vary in the amount of space they allot to each of these ingredients: symptoms and treatment appear in some, symptoms and aetiology alone in two; in others again, all three. They vary also in the order in which these are presented: symptoms, treatment, aetiology, as in *π. παθῶν*; aetiology, symptoms, treatment, as in *π. τῶν ἐντὸς παθῶν*. Moreover, a bald list of symptoms may be followed separately by aetiology, or symptoms and aetiology may be mixed up together. In general, aetiology is regarded as the least important of the three. It may be omitted altogether, as in *π. νούσων* III; or it may be confined to a sentence, which names the cause but explains little about its operation, as in *π. παθῶν*. In those works which are the most detailed, *π. νούσων* II. 12 ff., *π. νούσων* III, and *π. τῶν ἐντὸς παθῶν*, it is always upon treatment that the emphasis falls, with symptoms next in importance, and aetiology coming a long way behind. These differences in themselves would make an interesting object of study, with some considerable relevance to matters of more philosophic or scientific interest; and they redeem what, one must admit, is often comparatively dull reading.

Because of this pragmatism, this emphasis on treatment, we tend to regard it as a characteristic of the Cnidian school, as opposed to the school of Cos, to give detailed rules of treatment which could be applied *au pied de la lettre* irrespective of the individual constitution of the patient, to which other works in the collection pay so much regard.¹ Certainly the physician who had mastered the detailed therapies of *π. τῶν ἐντὸς παθῶν* and carried them in his head would be armed against all contingencies. Prepared to apply his remedies swiftly and mechanically, he need never appear at a loss in the sick-room; and he must have aroused awe and admiration by the complexity of his prescriptions. But was this pragmatism, with its comparative indifference to aetiology, characteristic of the school at its earliest discernible stage, that is, in the *Κνίδιαι γνῶμαι*? Neither Galen nor the author of *περὶ διαίτης ὁξέων* mentions aetiology at all in connexion with this work: its authors may have paid as little attention to the subject as the authors of those works which derive from it. Such a question is connected with a more general question, relevant to the Hippocratic collection as a whole, about the relation between symptoms, cause, and cure. At first sight, nothing could be more obvious: the occurrence of such and such symptoms identifies the disease for the physician; they are the outward manifestation of inner factors and processes which cause the disease; and upon his knowledge of these factors he prescribes a treatment which will counteract them. As a medical scientist, he will be interested in the relation of cause and symptom: this or that malfunction causes this or that symptom to appear. As a practising physician, he will be more concerned with the relation of symptom and treatment: the disease being identified by the symptoms,

¹ Cf. the characterization of the two schools in K. Sudhoff, *Kos und Knidos* (Munich, 1927), p. 97.

he proceeds to the accepted therapy for that disease, bypassing the scientific question of cause (which may be, but is not necessarily, implied by the treatment). It was for such physicians that a work like *π. τῶν ἐντὸς παθῶν* was written. This concept of the relation between cause, symptom, and treatment is, I suppose, modern, and we should be cautious about attributing it to the Hippocratic writers.¹ The scientific concept of cause is a sophisticated concept, much younger than the occurrence of disease and the necessity of treating it. Primitive medicine, even at the stage of magic, is sometimes aetiological: the incantation works because it expels the evil spirit. But humanity has more common sense than the ways in which it expresses itself sometimes suggest: if primitive medicine had been merely aetiological, it would not have worked; and herbs were used because to some extent they did work, however odd the reasons given for their effectiveness. In other words, long before scientific aetiologies were developed, diseases were distinguished and treatments recommended. At this stage of thought, the relation between treatment and cause is logically, as well as historically, prior.

The introduction of the concept of medical aetiology therefore presents an interesting situation. While it is clear that the treatments recommended in the Cnidian works depend to at least some extent on the accepted aetiology, it is unlikely that no attention was paid to traditional remedies; unlikely, that is to say, that the introduction of an aetiology based on bile and phlegm involved a complete revolution in methods of therapy: the results would have been disastrous. For a time at least it must have appeared to the early medical scientists that the effectiveness of traditional treatments might serve as an argument for the truth of their proposed aetiologies: the treatment explaining the cause rather than the cause dictating the treatment. There seems to be a fossilized example of such an attitude preserved for us in a sentence in *π. φασῶν* 9 (VI, p. 104 L.). The author, discussing the treatment of pain, says διὸ δὴ καὶ θερμαίνοντες ἔξωθεν, πυρήμασι πειρέονται μαλθάσσειν τὸν πόνον· ἀραιουμένου γὰρ ὑπὸ τῆς θερμασίης τοῦ πυρήματος διέρχεται τὸ πνεῦμα διὰ τοῦ σώματος ὥστε παῦλάν τινα γενέσθαι τῶν πόνων. Admittedly, this occurs in a theoretical, not a prescriptive, passage; but the point is that a reason is offered for a treatment which is regarded as already established.²

However, as the system developed, the aetiology no doubt tended to modify traditional treatments: to the primitive method of purgation of the hostile element, which is still the main principle of treatment in the Cnidian works,³

¹ It does not appear with full explicitness until the Alexandrian period, in the debate between the empirics and the dogmatics. Cf. K. Deichgräber, *Die griechische Empirikerschule* (Berlin, 1930), pp. 308 ff.

² Cf. the view of the empirical school, as described by Celsus (*De Med.* Proem. 36): *nec post rationem medicinam esse inventam, sed post inventam medicinam rationem esse quaesitam*. Contrast the attitude implied by J.-H. Kühn, *System- und Methodenproblem im Corpus Hippocraticum* (Hermes Einzelschrift xi [1956]), pp. 29–30: 'Wer in seinem Tun Tag für Tag vor die Frage nach der Krankheitsursache gestellt war, um richtig handeln zu können, der mußte sich für die Krankheitserklärung

seiner Gegner zuerst interessieren.' (My italics.) This attitude is true enough for the treatise K. is discussing, but we cannot take it for granted everywhere in the Corpus.

³ It is significant that in the *earliest* of them, treatment of conditions other than acute was confined to the application of a limited number of purgatives (*π. διατῆς ὀξέων* I, p. 109, 15–17 Kuehlewein). Moreover, it is no objection to the antiquity of this system to suppose, as I think we must, that *what* was purged according to the earlier *Κνίδιαι γνώμαι* were the humours bile and phlegm. These are not, as Fredrich (*Hippokratische Untersuchungen* [Berlin, 1899], pp. 34 ff.) conjectured, a development of the

were added other therapeutic methods based on theories of counteracting *δυνάμεις*; in other words, dietetic medicine. Like aetiology, dietetic medicine is also a late-comer, although, like aetiology, it no doubt developed to some extent from traditional practices and beliefs. But dietetic medicine in its full sense implies a developed physiological system, in a way in which the purely purgative, and traditional, aspects of Cnidian therapy do not: this is true of the system expounded in *π. διαίτης*,¹ true also of certain parts of the *Epidemics*; and Deichgräber seems to be right in arguing that Herodicus of Selymbria himself based his new system upon a scientific physiology.² This theory concerned the heating, cooling, moistening, and drying powers of various foods and liquids; it could therefore easily be adapted to an aetiology which explained diseases by the operation of humours which are set in motion by changes in temperature, and which themselves cause changes of temperature and of humidity in the body. Thus just as the introduction and development of dietetic medicine in itself depended upon the existence of a physiological theory, so also did its adoption, more manifest in some treatises than in others, by the Cnidian school. By the time dietetic treatments are established side by side with traditional treatments, the relation between aetiology and treatment is the one which we tend to regard as natural.³ But these developments could

'opposites' of Alcmaeon, made by Euryphon and his followers, but are probably much older: there is good reason for supposing that the Cnidian theory is Egyptian in origin (cf. R. O. Steuer and J. B. Saunders, *Ancient Egyptian and Cnidian Medicine* [Berkeley, 1959], though their arguments are open to criticism in a number of places). Euryphon was familiar with the term *χολή* (Galen, XVII A, 888 K.), but the term itself in its medical application is older than Euryphon (Archilochus 96 Diehl); while *φλέγμα καταρρέον* appears to have been familiar to Hecataeus (cf. F. Heinimann, *Nomos und Physis* [Basel, 1945], p. 180. Heinimann also credits H. with a knowledge of dietetic medicine [ibid. 177–8], but the grounds here are less certain; while his suggestion that Herodotus' remark [2. 77] about Egyptian medicine [*νομίζοντες ἀπὸ τῶν τρεφόντων σιτίων πάσας τὰς νούσους τοῖσι ἀνθρώποισι γίνεσθαι*] reflects purely Greek ideas is unlikely to be true: cf. Steuer and Saunders, op. cit., p. 5). I would suggest tentatively that Cnidian aetiology as we possess it is a combination of two originally distinct ideas: the bile-phlegm pathology, and the theory of *δυνάμεις*, on which Cnidian dietetics are based. It is significant that bile and phlegm in the Cnidian treatises show distinct signs of a double and inconsistent use: on the one hand they are treated as *δυνάμεις*, while on the other they are opposed to the *δυνάμεις*, which act upon them (cf. *π. παθῶν* I). It is in the latter case that they show their original character, while the dietetic use is to be traced back to Alcmaeon (cf.

the historical sketch given by A. Palm, *Studien zur Hippokratischen Schrift Περὶ Διαίτης* [Tübingen, 1933], pp. 110 ff.). It is possible that Euryphon was the first to combine these two elements, and that the differences between the earlier and later editions of the *Κνίδιαι γνώμαι*, noted by the author of *π. διαίτης ὀξέων*, are to be traced to the importation by Euryphon of dietetic medicine into the Cnidian tradition. This would account for his importance in that tradition.

¹ Cf. R. Joly, *Recherches sur le traité pseudo-hippocratique du régime* (Paris 1960), pp. 109 ff.

² 'Die Epidemien und das Corpus Hippocraticum' (*Abh. d. Preuss. Akad. d. Wiss., Phil.-hist. Kl.* 1933), pp. 60 ff., particularly p. 63. Herodicus, however, is unlikely to have been the first to do so: cf. Palm, op. cit., p. 111.

³ It is clearly stated in *π. παθῶν* 25 (VI, p. 236 L.). 'Dysentery and leientery and diarrhoea are akin, and must be treated by preventing or diverting the flow from the head and upper cavity: τοῦ γὰρ νοσήματος ἢ φύσις ἐντεῦθεν γίνεται, καὶ οὐδεὶς οὐδέν σου μέμβεται τὴν διάνοιαν.' The same author says in 37 (p. 246) that the first question the physician must ask himself, after discovering the *symptoms* from the patient, is whether the disease is caused by bile or by phlegm or by both. Cf. also *π. φύσιος ἀνθρώπου* 9 (VI, p. 54 L.): τὴν θεραπείην χρὴ ποιέεσθαι ἐναντιούμενον τῇ προφάσει τῆς νόσου. It is perhaps significant that a remark on dietetics has preceded: δῆλον ὅτι τὰ διαιτήματά ἐστιν αἷτια ἕκαστα ἑκάστοις. The thought is similar in *π. τέχνης* 11 (VI, p. 20 L.): τῆς γὰρ αὐτῆς

only have been possible if the retention of traditional treatments governed and controlled the development of theory. If we could only document the stages of this process, we should possess a record of one of the most momentous adventures of the human mind.

Aetiology comes to influence treatment: it may also influence the observation of symptoms. What are the relevant symptoms which the physician observes? Those which have an organic relation with the disease, that is, with the factors and processes which produce it.¹ Moreover, aetiology may influence the interpretation of symptoms: the observer ignorant of aetiology merely sees urine of a reddish colour: the scientific physician 'knows' that it is bilious urine, because the disease is one that is caused by bile. (He may also of course be influenced in his interpretation by what he expects to see: if the colour is dubious, he may decide it by his knowledge of the cause.) For these reasons, aetiology must have had an increasing influence upon symptomatology, as it did on treatment.

The extent, therefore, to which aetiology was already developed in the *Κνίδιαι γνώμαι*, and its importance in comparison with symptomatology and treatment, are questions which have considerable bearing on the early history of Greek medicine as a whole. In what follows, I am partly concerned with these questions, and partly with attempting to show some, though only some, of the relations existing between these writings. The historical suggestions outlined above are tentative only, and are intended as a framework of reference for the more detailed problems I wish to discuss. Finally, I shall attempt to show, in disagreement with Edelstein, that there is a distinct aetiological system which is shared by all these works.

π. νούσων II²

π. νούσων II contains two parts: 1-11, in which the symptoms and aetiology of eleven maladies are given; and 12 ff. where symptoms are given, followed

ξυνέσιός ἐστιν, ἥσπερ τὸ εἶδέναι τῶν νούσων τὰ αἷτια, καὶ τὸ θεραπεύειν αὐτὰς ἐπίστασθαι κτλ. The treatise π. ἱρῆς νούσου is entirely governed by this attitude: see especially the initial and final chapters, and cf. the remarks of M. Pohlenz, *Hippokrates* (Berlin, 1938), pp. 85 ff.

¹ Cf. π. τῶν ἐντὸς παθῶν 35 (VII, p. 252 L.): ἴσταται οὖν ἡ χολὴ ὑπὸ τῷ δέρματι καὶ ἐν τῇ κεφαλῇ, ὥστε εὐθὺς ἀλλοχροεῖ τὸ σῶμα καὶ γίνεταί ὥχρον κτλ. The relation between cause and symptom is not usually stated so clearly in these works.

² As will be seen, I regard π. νούσων II. 1-11 and 12 ff. as two separate works, both depending upon a common source, which contained the aetiology (which is therefore early) of 1-11, and the symptoms and treatment of 12 ff.; 1-11, however, was probably composed later than 12 ff. Thus the relation is complicated, but seems to me to account for the facts best. For a different explanation, see M. Pohlenz, 'Hippokratesstudien', *N.G.G.* (1937), 91 ff.; and the same author's *Hippokrates* (Berlin, 1938), p. 49 and p. 108,

n. 4. P. regards the aetiology of 1-11 as (a) later than the source of the symptoms and treatment of 12 ff. (though these have been worked over by a later author on the basis of 1-11); and (b) largely dependent upon the treatise π. ἱρῆς νούσου (cf. also M. Wellmann, 'Die Schrift π. ἱρῆς νούσου', *Arch. Gesch. Med.* xxi [1929], 304 ff.). The considerations which I advance in the text will indicate my grounds for not accepting (a); as for (b), in view of the considerable dissimilarities between the aetiology of π. νούσων II and of π. ἱρῆς νούσου (which P. himself admits, *N.G.G.* [1937], 94-95; to what he says there I would add that the reason for the importance of the head [not the brain, which is not mentioned] in this section of π. νούσων II, is simply that the arrangement is a *capite ad calcem*; moreover, the head here is not regarded as the seat of phlegm only, as P. says it is), it seems to me that Wellmann's hypothesis of a common source for both works (op. cit., pp. 304 ff.) is at least likely to be nearer the truth, though based on somewhat tenuous grounds.

by detailed prescriptions for treatment with no aetiology. Since the diseases discussed in 1-11 reappear in 12 ff. in the same order, with close parallels in the description of symptoms, we seem to be confronted by a conflation of two editions, in one of which symptoms and aetiology were given, and in the other, symptoms and treatment. The passage parallel to the passage from the *Κνίδιαι γνώμαι* quoted by Galen occurs in the second part, at 68 (VII, p. 104 L.).

The beginning of π. νούσων II. 1 is clearly missing: the pattern of composition observed in 2-11 is a brief enumeration of symptoms, followed by a more extended account of their cause, and in this latter part the symptoms are usually repeated individually, followed in each case by a description of the process producing them, given in a temporal or causal clause: 3 (VII, p. 10 L.) is a good example. It is with this secondary description of symptoms that 1 begins.¹ In 12 (VII, pp. 18-20 L.), corresponding to 1, the author remarks: ἦν μὲν ῥαγῇ κατὰ τὰς ῥίνας ἢ κατὰ τὰ ὦτα ὕδωρ καὶ βλέννα, ἀπαλλάττεται τῆς νούσου καὶ παύεται τῆς στραγγουρίας.² Here the connexion between the symptom and the prognosis based upon it is explained by the aetiology of 1: the strangury is caused by a liquescence of phlegm in the head, which flows διὰ τῶν φλεβῶν αἰ ἄγουσιν ἐς τὸ αἰδοῖον. It is therefore prevented by an apostasis through the ears. In 13 (VII, p. 22 L.), corresponding to 2 (p. 8), the author recommends purgation of phlegm and bile for ulceration of the brain (φάρμακόν οἱ δοῦναι, ὑφ' οὗ φλέγμα καὶ χολὴ καθαρεῖται ἄνω). In 2, the cause of the condition is given as φλέγμα ὑπόχολον.

In 17 (VII, p. 30 L.) the author recommends treatment by warming the patient's head, and adds: ἦν γὰρ ῥαγῇ διὰ τῶν ὠτῶν ἢ τῶν ῥινῶν ὕδωρ, οὕτως ἐκφυγγάνει τὸν ὄλεθρον. Here γάρ only has meaning for one conversant with the aetiology of the disease. It is a chance remark which has strayed into the prescriptive section from the aetiological section of the source. This is given in 4 (VII, p. 10 L.): ὑπερεμέειν (see below) δοκεῖ ὅταν ἐς τὰς φλέβας χολὴ ἢ φλέγμα ἐσέλθῃ οὗτος ἦν μὲν ῥαγῇ αὐτῷ ἐς τὰς ῥίνας ἢ ἐς τὸ στόμα ὕδωρ καὶ φλέγμα, ὑγιὲς γίνεται. A similar phenomenon is shown by another sentence in 17: καὶ τὰ ὦτα ἡχέει, καὶ πνεύματος ἐμπίπλῃται, καὶ ἀκούει οὐδέν. Now the filling of the aural cavity with air has no place in a list of symptoms: it describes in itself nothing observable. Once again, it is a stray remark about cause; one, moreover, which appears to be a misunderstanding of the phrase ἄτε οὐκ ἐνεόντος τοῦ ἡέρος ἰσοπληθέος in 4 (p. 12). It is the forcing out of air from the aural cavity, rather than its filling, which causes deafness. The author was misled by the word ἰσοπληθέος and misunderstood the process.

¹ The beginning was also missing in Galen's text, of which the initial words coincided with ours: XVII A, 888 K. In view of the manner of composition in 2-11, in which symptoms are repeated, I cannot agree with Ilberg (*Festschrift für Lipsius*, p. 37, n. 1) that a comparison with 12 indicates that 1 is complete.

² For the term βλέννα and its relation to phlegm, see C. Fredrich, *Hippokratische Untersuchungen*, p. 42, n. 2. For ὕδωρ, cf. π. νούσων II. 2 (VII, p. 8 L.) ἐκ τῶν ὠτῶν ὕδωρ ῥεῖ. The

water is a liquescence of phlegm: ἐς δὲ τὰ ὦτα λεπθυνόμενον τὸ φλέγμα διαδιδόει. Cf. π. παθῶν 19 (VI, p. 228 L.), ὕδωρ ἢ φλέγμα, and the change of phlegm to water in dropsy, π. τῶν ἐντὸς παθῶν 22 (VII, p. 220 L.). Precisely the same process is described in π. παθῶν 4 (p. 210), τὸ φλέγμα λεπθυνόμενον. π. παθῶν 4 is a compendium of the diseases of the head which are discussed in *extenso* in these chapters of π. νούσων II, and is presumably abbreviated from the equivalent section in the *Κνίδιαι γνώμαι*.

The relation between 4 and 17 is complicated by the criticism of the term *ὑπερεμέειν*¹ made by the author of 4: although the term is commonly used, he says, it is in fact an impossible occurrence, and even if it did occur, it could not cause any harm. The author of 17, however, uses the term without comment; a fact which suggests that the composition of 4 is subsequent to the composition of 17: this may be true of the whole edition represented by 1-11. The criticism disturbs the order of thought, and is an anomaly in the pattern symptoms: aetiology. It is clearly an addition, not very well integrated, made independently by the author of 1-11; it was presumably not present in his source.

In 20 (VII, p. 34 L.) the author warns against washing with warm water or the application of fomentations, if the patient vomits blood or if blood flows through the nose. In the corresponding section 5 (VII, p. 14 L.) the reason is given: it is overheating of the veins in the head which causes blood to flow from the nose, and overheating of the veins along the spine which causes blood to flow into the body. Heating the patient would therefore aggravate the condition.

In 22 (VII, p. 36 L.), where a form of apoplexy is described, the author mentions the contingency that the patient may vomit bile: *ἦν δὲ ἀνιστάμενος χολὴν ἐμέειν*. Cf. 6 (VII, p. 14 L.), where the disease is caused by *χολὴ μέλαινα*. At the end of the same section, the author remarks *ἦν δὲ ἐκ θωρήξιος ταῦτα πάθη, πάσχει ὑπὸ τῶν αὐτέων, καὶ ἀπόλλυται ὑπὸ τῶν αὐτέων, καὶ διαφεύγει ὑπὸ τῶν αὐτέων*. In 22 *ἀφωνία* caused by excessive drink is regarded as a separate disease altogether, differing in prognosis (the patient dies on the third, or fifth, instead of the seventh day), and in treatment. The disease is described again in *π. νούσων* III. 8 (VII, p. 126 L.), where it is again treated as one disease, though the remark is added: *ἦσσαν δὲ οἱ ἐκ τῆς μέθης τοιοῦτόν τι παθόντες καὶ ἄφωνοι μείναντες ἀποθνήσκουσιν*. The subdivision of diseases characteristic of the Cnidian school was a developing process. The author of *π. διαίτης δξέων* commends some, but only some, of the *ἀρχαῖοι* for recognizing the *πολυσχιδία* of diseases: it was not universal. In the present instance we can see this subdivision in the process of growth. The common source contained one disease, with a remark that it may also arise through excessive drink; possibly it included a variation in prognosis. This variation in the form of the disease, slight enough for the author of *π. νούσων* II. 6 to deny it altogether (the passage seems to be expressed as a criticism), becomes a distinct disease in *π. νούσων* II. 22.

In 25 (VII, p. 38 L.) a treatment of warm water and fomentations is suggested: the treatment depends on the aetiology which appears in 8 (VII, p. 16 L.). Paralysis occurs when phlegm chills the blood and brings it to a standstill. In 26 (VII, p. 42 L.) (*κυνάγχη*), with *ἐπὶν ἔξω τράπηται τὸ φλέγμα*

¹ The word is clearly nonsense, and should be *ὑπεραιμέειν*: cf. LSJ s.v. *ὑπερεμέω*. Only then does the whole passage become intelligible. The author says, in effect: 'It is ridiculous to talk of the veins having too much blood. What actually happens is that bile and phlegm enter the veins, and as evidence (*σημῆιον*, p. 12) that this is so, when you make an incision the blood is black and in a morbid state. Now if the expression *ὑπεραιμέειν* were literally correct (*δίκαιον κατ'*

οὔνομα, p. 12) the blood should be red, its pure colour, not black and muddy.' For the phenomenon itself, cf. *π. τῶν ἐντὸς παθῶν* 10 (VII, p. 190 L.), *ὑπερπλησθὴ τὰ φλέβια* (with phlegm), and 18 (p. 210): *τὸ δὲ νοῦσημα γίνεται μὲν ἀπὸ φλέγματος καὶ χολῆς, ὁκόταν ἐς τὰς φλέβας συνῥυθῇ. αἱ δὲ φλέβες αὐταὶ αἱματὸς εἰσι πλήρεις· ἦν οὖν τι παρ' ἐλθῇ ἄλλοῖον ἐς αὐτάς, νοσοῦσι* (cf. *νοσῶδες*, *π. νούσων* II. 4 [VII, p. 12 L.]).

compare 9 (VII, p. 16 L.), where the inflammation characteristic of the disease is caused by phlegm.¹

The above may serve as examples of the relation between *π. νούσων* II. 1-11 and 12 ff. The treatments recommended in 12 ff. depend on the aetiology described in 1-11. Moreover, some remarks occurring in connexion with symptoms and treatment in 12 ff. make better sense in an aetiological description than where they actually occur. Taken together, therefore, the two fragments indicate a common source which contained the symptoms common to both, the aetiology of 1-11, and at least some of the treatment of 12 ff. That is the pattern which is reflected in various ways by *π. παθῶν*, *π. τῶν ἐντὸς παθῶν*, and *π. νούσων* III. In the source, the aetiological account must have been significant enough to determine the manner in which symptoms were described (cf. the double description of symptoms in 1-11), and the prescriptions for treatment.

Since treatment is emphasized more strongly in the Cnidian works than symptoms and aetiology, it is strange to find a fragment such as *π. νούσων* II. 1-11, which contains symptoms and aetiology, but no reference to treatment.² It is possible that in the complete edition, the intention was to give treatment separately, in subsequent sections. We find traces of such an arrangement in the treatise *π. τόπων κατ' ἄνθρωπον* (VI, pp. 276 ff. L.), a work which is excluded from the Cnidian group by its individual system of aetiology, but which is certainly Cnidian-influenced. The treatise, however, is theoretical, designed apparently to present a certain view on physiology and the cause of diseases, and the relation of the second half, which is in any case disordered, to the first half is puzzling: it does not seem to have been part of the original plan. A discussion of treatment does not really belong to the work at all; and even if it did, it is difficult to see the advantages of such an arrangement.

A better analogy to *π. παθῶν* II. 1-11 might be found in the treatise *π. νούσων* I. Here no attention is paid either to treatment or to symptoms: the author's interest in the disease is purely theoretical. The reason lies in the nature and intention of the work as a whole; and it is succinctly given in its introductory sentence (VI, p. 140 L.): *ὅς ἂν περὶ ἰήσιος ἐθέλῃ ἐρωτᾶν τε ὀρθῶς καὶ ἐρωτῶντι ἀποκρίνεσθαι, καὶ ἀντιλέγειν ὀρθῶς, ἐνθυμέεσθαι χρὴ τάδε· πρῶτον μὲν ἀφ' ὧν αἱ νοῦσοι γίνονται πᾶσαι τοῖσιν ἀνθρώποισιν κτλ.* The remaining subjects announced in this first chapter fall under the following rubrics: prognosis (*ὁκόσα ἀνάγκας ἔχει τῶν νοσημάτων* lines 4-8); chance as opposed to rational scientific procedure (*ἐπιτυχίῃ, εἰκασίῃ—ὁκόσα ἀκριβῶς ποιεῖται ἐν τῇ τέχνῃ* lines 9-19). This is of course founded upon aetiology, and is thus consistent with the general tendency of the treatise, announced at the beginning. Cf. 6 (VI, p. 150 L.): *ὀρθῶς δέ, τὰ τε νοσήματα γινώσκειν ἃ τέ ἐστι καὶ ἀφ' ὧν*; ethics and deportment (*εὐχειρίῃ—ἀχειρίῃ* in line 19; the rest of the chapter is disordered and repetitive).

If the physician wishes to expound or to defend his science, he must do so

¹ On phlegm as a cause of inflammation, see Fredrich, op. cit., p. 38, and instances from the Cnidian works quoted there.

² Ilberg, *Festschrift für Lipsius*, p. 38, n. 1, conjectured that *π. νούσων* II. 1-11 might go back to the first edition of the *Κνίδιαι γνῶμαι*, on the ground that the author of *π. διαίτης* *δξέων* says that the composers of the

second edition *ἱητρικώτερον δὴ τι ἐπῆλθον περὶ τῶν προσοιστέων ἐκάστοις*: 'sie bildeten also die Therapie aus'. See, however, Galen's interpretation of *προσκαταμαθεῖν*: *C.M.G.* V. 9, 1, p. 268. It is certainly evident that the authors of the Cnidian works went their own way in treatment. It is aetiology which unites them.

above all in terms of aetiology. The context in which this is to be understood is the contemporary sophistic debate about the status of medicine as *τέχνη*.¹ Apart from this question, however, the implications for treatment and symptomatology of *π. νούσων* I are interesting. One would expect a physician's claim to be scientific to rest above all on his ability to demonstrate that his *treatment* is the correct one under the circumstances. He can, however, only do so in terms of aetiology. In themselves, both symptoms and the effectiveness of a given treatment are irrational facts. A symptom is present or it is not; a treatment works or it does not: they can only be recorded or recommended. They become objects of rational *discourse*, which is the concern of the author of *π. νούσων* I, through their relation to an aetiology.² Now the relation between aetiology and treatment is highly variable in the Cnidian works. Aetiology only influences treatment in the most general way. The accepted cause of a disease may suggest a treatment based on purging, or heating, or cooling, or on some combination of these; but it will not suggest, for example, the particular *kind* of purgative to be used, or the proportions in which a preparation is to be mixed. Prescriptions in the Cnidian works are given in the utmost detail, detail, moreover, which varies from treatise to treatise; and while it is true that some of these prescriptions might be shown to have a rational basis, it seems safe to assume that most of them have not, and are suggested either by traditional practice, or by individual experience—or even individual quackery. It is only in the strictly dietetic treatises, or in those parts of the Cnidian works where the influence of dietetic medicine is strong, that a *detailed* relation between aetiology and treatment begins to be worked out. There, a particular kind of meat will have a particular effect; and the effect will vary according to the way in which it is cooked, and to the degree and kind of exercise prescribed with it. These, however, are still comparatively modern developments: it is unlikely that they can account for most of the prescriptions in the Cnidian works. It is notable, in those works, how much the treatment varies in parallel passages. The physician, drawing upon a general handbook such as the *Pharmakitis* mentioned frequently by the author of *π. παθῶν*, sets down his own individual combination of traditional remedies. He may favour prescriptions with wine for most conditions, while another author recommends 'complete abstention from wine' (*ἀοινέειν δὲ τὸ πάμπαν*) with monotonous regularity. Or he may prescribe cautery, but only when all other remedies fail, while another author prescribes cautery and bleeding without restriction. Much of this variation may depend upon personal experience: the physician has found this cathartic preparation to be more effective, in a particular condition, than that, in the past; but he cannot give a reason, in terms of the aetiology of bile and phlegm, why it should be so.³ Hence variation in treatment cannot be used as an argument for detaching the Cnidian treatises from each other, or as evidence that a particular author is propounding an individual theory.

¹ Cf. J.-H. Kühn, *op. cit.*, particularly pp. 39 ff.

² It is a physician who possesses such an aetiology, one who can *λόγον διδόναι*, that Plato has in mind in his portrait of the physician of free men (*Laws*, 790 d).

³ The author of *π. παθῶν* freely admits that the discoveries of pharmacology are 'more a matter of chance than of scientific

reasoning' (45, VI, p. 254 L). His contrast *ἀπὸ τύχης-γνώμῃ* nicely expresses the difference between the traditional treatments in the Cnidian works and those which have been influenced by dietetic medicine. Indeed, it is precisely this difference that the author, himself familiar with the principles of dietetics, may have in mind.

To a lesser extent, one notices a similar variation in symptomatology; this variation is characteristic of the Hippocratic collection as a whole. The symptoms used to identify a disease were often of a very general kind. The description of icterus, for example, shows throughout the *Corpus* only the following common symptoms: yellowness of eyes and complexion, yellow evacuation, and, of course, the absence of positive symptoms indicating a different disease. Fundamentally, diseases seem to have been identified in a negative way: the disease is such and such because it is not anything else. There is often something aprioristic about these identifications: the *Epidemics*, particularly, give the impression that the visiting physician has already made up his mind about the nature of the disease before he notes the symptoms. The attitude, and sometimes the expression itself, is 'in such a phrenitic case, these symptoms occurred'.¹ Within the group of the Cnidian works themselves, variations in symptoms are found even between clearly parallel passages. Here again, the explanation probably lies in the personal experience of the physician: along with the cut-and-dried account of symptoms which are part of his professional training and equipment, he may note variant symptoms which he has personally observed. But the relation between symptoms and aetiology is closer, in the Cnidian works, than the relation between treatment and aetiology. It acts as a control on such variation.

Since, then, treatment and, to a lesser extent, symptomatology are largely empirical matters, which must, in order to become amenable to scientific treatment, be related to aetiology, it is with aetiology that the author of *π. νούσων* I is concerned. Once in possession of it, the physician will be in a position to debate the significance of symptoms, and to justify treatment: the treatise throughout aims at outlining essential information, rather than at completeness. It is a theoretical epitome. It is possible that the work from which *π. νούσων* II. 1-11 comes may have had a similar purpose: as a handbook, not to aid the physician in the practice of his art, but to equip him in its theory. It would have drawn from the more comprehensive work, which included symptoms, aetiology, and treatment; it would presumably have had a general introduction; and it may have treated, like *π. νούσων* I, a variety of subjects.

π. νούσων II and *π. τῶν ἐντὸς παθῶν*

The treatise *π. τῶν ἐντὸς παθῶν* follows on directly, in its reflection of the source, from *π. νούσων* II, as Ilberg claimed.² L. Edelstein³ disagrees: according to him, the two treatises follow altogether different principles of arrangement. *π. νούσων* II takes as its starting point the factors, bile and phlegm, which cause disease; and it arranges its material accordingly. Thus *π. νούσων* II. 1-37 is devoted to a discussion of diseases caused by phlegm, while the chapters 38 ff. describe diseases caused by bile. The author of *π. τῶν ἐντὸς παθῶν* on the other hand arranges his material according to the organ affected.

While it is true that the relation between *π. νούσων* II and *π. τῶν ἐντὸς παθῶν* is not as clearly discernible as Ilberg perhaps suggested (we must reckon with the problem of misplaced chapters in all these texts: they are

¹ Cf. the case histories in the epidemic of phrenitis recorded in *Ep.* III (III, pp. 60, 116, 136, 140, 142, 146 L.).

² *Berichte über die Verhandl. d. Sächs. Akad. Wiss.* lxxvi. 3 (1924) p. 7.: 'diese beiden

ergänzen sich inhaltlich in der Reihenfolge der Krankheiten *a capite ad calcem* und weisen auf einen gemeinsamen Archetypus, das waren zweifellos die *Κνίδιαι γνῶμαι*.'

³ *Op. cit.*, pp. 162-3.

liable to such disarrangement), I cannot agree that the arrangement in *π. νούσων* II amounts to a system according to aetiology, or that it is any different from the principle followed in all these works, that of *a capite ad calcem*. The diseases described in the early chapters of *π. νούσων* II are not placed there because they are caused by phlegm,¹ but because phlegm is the cause of diseases of the head, ears, nose, and throat, all of which are placed here in accordance with the principle *a capite*. One need merely compare *π. παθῶν*, which is clearly following, in abbreviated form, an archetype in which maladies were discussed in the same order as in *π. νούσων* II. The diseases are condensed to two sections (the condensation of an elaborate discussion of polyps, reflected in *π. νούσων* II. 33–37, to *π. παθῶν* 5, is particularly striking). These diseases in *π. παθῶν* are also, as they are in *π. νούσων* II, caused by *phlegm*. Now the author of *π. παθῶν*, finishing his discussion of this part of the body, like *π. νούσων* II, with a section on polyps, then remarks (5, VI, p. 214 L.): ταῦτα μὲν ὅσα ἀπὸ τῆς κεφαλῆς φύεται νοσήματα πλὴν ὀφθαλμῶν. He then begins the following section with περὶ δὲ τῶν κατὰ κοιλίην νοσημάτων. The principle is clear. Moreover, in view of the absence of aetiological remarks in *π. νούσων* II. 12 ff. it is rash to assert that all the diseases in 12–37 are caused by phlegm, while those in 38 ff. are caused by bile. We do not know; and the description of symptoms and treatment suggests that this is not the case. The explanation of the section beginning 40 (VII, p. 56 L.), πυρετοὶ ἀπὸ χολῆς, is probably a complex one; we must reckon, I think, with conflicting principles of classification in the Cnidian works. However, this is a question which I wish to discuss later.

The treatise *π. τῶν ἐντὸς παθῶν* is the most systematic Cnidian work which we possess, superior to the other treatises in language, arrangement, coherence, and inclusion of detail. Since the latter part of *π. νούσων* II deals with affections of the upper cavity, ἡ ἄνω κοιλίη, while the beginning of *π. τῶν ἐντὸς παθῶν* discusses some of these before passing on according to the Cnidian sequence to diseases of the lower cavity, ἡ κάτω κοιλίη, i.e. affections of the liver, spleen, and kidneys, there are certain parallel passages between the two works. An examination of these suggests that in some points *π. τῶν ἐντὸς παθῶν* stands closer to the original source than *π. νούσων* II.

π. νούσων II. 55 (VII, pp. 84–86 L.) *π. τῶν ἐντὸς παθῶν* 6 (VII, p. 180 L.)

Ἐρυσίπελας ἐν πλεύμονι ἢν ἐρυσίπελας ἐν πλεύμονι γένηται, βῆξ ἔχει, καὶ τὸ σίαλον ἀποπτύει πολὺ καὶ ὑγρὸν, οἷον ἀπὸ βράγχου, ἔστι δ' οὐχ αἱματώδες, καὶ ὀδύνη ἴσχει τὸ μετὰφρενον καὶ τοὺς κενεῶνας καὶ τὰς λαπάρας, καὶ τὰ σπλάγχνα μύζει, καὶ ἐμέει λάπην καὶ οἷον ὄξος, καὶ τοὺς ὀδόντας αἰμωδιᾷ, καὶ πυρετὸς καὶ ῥίγος καὶ δίψα λαμβάνει, καὶ ὅταν τι φάγη, ἐπὶ τοῖσι σπλάγχνοισι μύζει, καὶ ἐρεύγεται ὀξύ, καὶ ἡ κοιλίη τρίζει, καὶ τὸ σῶμα ναρκᾷ, καὶ ὅταν

Ἦν φλεγμονὴ ἐν πλεύμονι γένηται, γίνεται δὲ μάλιστα ἀπὸ οἰνοφλυγίης καὶ γαστριμαργίης ἰχθύων κεφάλων καὶ ἐγγελύων· ταῦτα γὰρ τὴν πιμελὴν πολεμωτάτην ἔχει πρὸς τὴν φύσιν τοῦ ἀνθρώπου· ἥδη δὲ τὸ νοσήμα ἐγένετο ἀπὸ φλέγματος, ὁκόταν μιγὲν τῷ αἵματι ἐπιρρύη ἐπὶ τὸν πλεύμονα· προσπίπτει δὲ καὶ ἐκ κρηφαγίης καὶ ἐξ ὕδατος μεταβολῆς. Τάδε οὖν πάσχει· βήσσει ἰσχυρῶς, καὶ τὸ σίαλον ἀποπτύει ὑγρὸν καὶ πολλόν, πολλάκις δὲ καὶ παχὺ καὶ λευκόν, οἷον ἀπὸ

¹ In any case, the first eleven diseases in *π. νούσων* II are not exclusively caused by phlegm: cf. 2 (VII, p. 8 L.) (= 13,

pp. 22–24), and 6 (p. 14) (= 22, pp. 36–38): μέλαινα χολή.

ἐμέσῃ, δοκέει ῥάων εἶναι· ὅταν δὲ μὴ ἐμέσῃ, ἀπιούσης τῆς ἡμέρης, στρόφος καὶ ὀδύνη ἐγγίνεται ἐν τῇ γαστρὶ, καὶ ἀπόπατος ὑγρὸς γενόμενος διεχώρησεν. Ἡ δὲ νοῦσος μάλιστα γίνεται ἐκ θωρηξίων καὶ ἐκ κρηφαγιέων καὶ ἐξ ὕδατος μεταβολῆς· ἴσχει δὲ καὶ ἄλλως.

βράγχον· καὶ ὀδύνη πιέζει ὀξείῃ ἐς τὰ στήθεα καὶ τὸ μετάφρενον καὶ τοὺς κενεῶνας καὶ τὰ πλευρά, καὶ ἐρεύγεται ὀξύ, καὶ ἐκ τῶν στήθεων καὶ πλευμόνων οἶον γαστήρ τρυλλίζει, καὶ ἐμέει λάπην ὀξείην, καὶ τὸ ἔμεσμα ἦν ἐκχέτης χαμάζε, ξύει τὴν γῆν ὥσπερ ὄξος ἐπιχέοντι, καὶ τοὺς ὀδόντας αἰμωδιᾷ, καὶ ῥίγος καὶ πυρετὸς καὶ δίψα ἔχει ἰσχυρή, καὶ ἦν τι θέλη λιπαρὸν φαγέειν, μύζει πρὸς τὰ σπλάγχνα καὶ ἔμετον ἄγει, καὶ τὸ σῶμα ἅπαν νάρκη ἔχει· ὁκόταν δὲ ἀπεμέσῃ, ἐπ' ὀλίγον δοκέει ῥάων εἶναι· ἔπειτα ἐπειδὴν τῆς ἡμέρης ὀψίτερον γένηται, βρέμει ἢ κοιλίῃ καὶ στρέφει καὶ βορβορύζει.

π. τῶν ἐντὸς παθῶν begins its description of the disease with an account of the originative cause: over-indulgence in wine, κέφαλοι, and eels. The author adds the reason: the nature of the fat of these fish. Then the aetiology of the disease is given, followed by a remark, which is strictly out of place, on two other originative causes. Then the author begins his account of the symptoms. This order of treatment, originative cause / aetiology, followed by symptoms which are often introduced with the phrase *τάδε οὖν πάσχει*, is characteristic of this treatise throughout.¹ *π. νούσων* II on the other hand follows its usual arrangement: recital of symptoms, followed by prescriptions for treatment. The remarks on the originative causes of the disease, which this treatise does not normally include, occur at the end of the section on symptoms.

It was probably characteristic of the common source to begin its account with a description of symptoms. This is the arrangement in the passage from the *Κνίδιαι γνώμαι* quoted by Galen;² and it is common to *π. νούσων* II. 1–11 and 12 ff., *π. νούσων* III, and *π. παθῶν*. The order originative cause / aetiology-symptoms is therefore presumably due to the author of *π. τῶν ἐντὸς παθῶν*. Such individual characteristics in the treatise admittedly make comparison difficult. Another characteristic of this author is to add detail; the presence of such detail in *π. τῶν ἐντὸς παθῶν* does not necessarily indicate its presence in the source. Here, for example, while *π. νούσων* II notes as a symptom pain in the back and flanks, *π. τῶν ἐντὸς παθῶν* adds the chest and ribs as well. The detail may have appeared in the source; but it may equally well have come from the author's personal experience—or even from a desire for literary fullness. There are, however, apart from such ambiguous instances, details which suggest an origin in the source. *π. νούσων* II gives as originative causes excessive drinking, meat-eating, change of water, and then adds *ἴσχει δὲ καὶ ἄλλως*. The causes which this author does not specify are preserved in *π. τῶν ἐντὸς παθῶν*, which refers to κέφαλοι and eels. Similarly, whereas *π. νούσων* II notes that the patient vomits λάπην καὶ οἶον ὄξος, *π. τῶν ἐντὸς παθῶν* remarks that when poured on

¹ Cf., e.g., 18 (p. 210); 22 (pp. 220–2); 23 (p. 224); 25 (p. 230); 40 (p. 264); 48 (p. 284), and many more. The order, however, is not invariable.

² XVII A, 888 K. It is clear that Galen quotes the passage from the *beginning*, since the rubric is given: Πελιάς· πυρετὸς ἴσχει κτλ.

the ground, it erodes it like vinegar. Possibly this early example of a pathological test is an independent addition, but it seems more likely that *π. νούσων* II abbreviates here, while the other work preserves the fuller version of the source. This suspicion is supported by the appearance of the same illustration in another context in *π. νούσων* II. 73 (VII, p. 110 L.) (*μέλαινα νοῦσος*): the patient vomits *ὅτε δὲ δριμύ οἶον ὄξος, ὅτε δὲ σίαλον καὶ λάπην*¹ . . . καὶ τὸ ἔμεσμα τὴν γ ἦν αἶρει. Such illustrations were perhaps characteristic of the *Κνίδιαι γνώμαι*: a similar one appears in *π. νούσων* II. 48 (VII, p. 72 L.), *πτύοντι ἐπ' ἀνθρακας βαρὺ ὄζη τὸ σίαλον*.

The author of *π. τῶν ἐντὸς παθῶν* presents symptoms with a coherence which is notably absent from *π. νούσων* II. In general, when symptoms are recorded in the Hippocratic works, they are of two kinds. Either the symptom is noted down by itself, in a purely enumerative list; or it is connected with some preceding event, which may be external or internal (i.e. aetiological), or with a definite stage or crisis in the disease: when *x* occurs, *y* follows. I suspect that many of the symptoms recorded in the Cnidian works are, originally, of the latter kind, but that they have been taken from their context and set down side by side for reasons of brevity. In the present instance, the author of *π. νούσων* II has used both methods, producing the careless repetition *τὰ σπλάγχνα μύζει—ἐπὶ τοῖσι σπλάγχνοισι μύζει*. The symptom is set down in inventory form in the first case, and occurs in context in the second case. While both works reflect an orderly arrangement of symptoms in temporal sequence (*π. νούσων* II: *ὅταν τι φάγη . . . μύζει . . . τὸ σῶμα ναρκᾷ . . . ὅταν ἐμέσῃ . . . ὅταν δὲ μὴ ἐμέσῃ*;² *π. τῶν ἐντὸς παθῶν*: *ἣν τι θέλῃ . . . μύζει . . . ὁκόταν δὲ ἀπεμέσῃ . . . ἔπειτα κτλ.*), it is carried out more consistently in *π. τῶν ἐντὸς παθῶν*, and the unnecessary repetition of *π. νούσων* II is avoided. Similarly, while *π. νούσων* II has the ambiguous *ἡ κοιλίῃ τρίζει*, the corresponding passage in the other work has the necessary precision: *ἐκ τῶν στηθῶν . . . τρυλλίζει*. Moreover, the remark in *π. νούσων* II occurs out of place in the order of symptoms. Either the author of *π. τῶν ἐντὸς παθῶν* represents the original more faithfully, or he imposes coherence, consequence, and precision upon a haphazard collection of symptoms. It seems to me that the first alternative is more likely.

This relation between the two works in their description of symptoms is well illustrated by a comparison of a further two parallel passages:

π. νούσων II. 53 (VII, pp. 80–82 L.) *π. τῶν ἐντὸς παθῶν* I. (VII, p. 166 L.)

Ἀρτηρίη τρωθεῖσα ἣν τρωθῇ ἡ ἀρτηρίη, βῆξ ἔχει, καὶ αἷμα βήσεται, καὶ λανθάνει ἡ φάρυγξ πιμπλαμένη τοῦ αἵματος, καὶ ἐκβάλλει θρόμβους καὶ ὀδύνη γίνεται ἐκ τοῦ στήθεος ἐς τὸ μετάφρενον ὀξέη, καὶ τὸ σίαλον γλίσχρον καὶ πολὺ, καὶ ἡ φάρυγξ ξηρὴ, καὶ πυρετὸς καὶ ῥίγος ἐπιλαμβάνει, καὶ κέρχνεται ἡ φάρυγξ οἶον ὑπὸ λιπαροῦ· ἐς τε μὲν πεντεκαίδεκα ἡμέρας πάσχει τοιαῦτα· μετὰ δὲ

Ἦν ἡ τοῦ πλεύμονος ἀρτηρίη ἐλκωθῇ ἢ τι ῥαγῇ τῶν φλεβίων τῶν λεπτῶν, τῶν κατακρεμαμένων ἐς τὸν πλεύμονα, ἡ τῶν συρίγγων τῶν διὰ τοῦ πλεύμονος τεταμένων, καὶ συρράגעωσι ἐς ἀλλήλας καὶ αἵματος πλησθῶσι, διασπῶνται τε καὶ καταρρήγνυνται διὰ τάσδε τὰς αἰτίας μάλιστα· διὰ τάλαιπωρίην, διὰ δρόμους, διὰ πτώματα, διὰ πληγὰς, δι' ἐμέτους βιαίους γινομένους, διὰ πυρετούς· τάδε

¹ On *λάπη*, see Fredrich, op. cit., p. 39 n.

² Contrast *π. τῶν ἐντὸς παθῶν*. It is difficult to tell which represents the correct

version, but *π. τῶν ἐντὸς παθῶν* reads more naturally: *ἐπ' ὀλίγον δοκεῖ . . . ἔπειτα*.

πῦον πτύει, καὶ οἷα ἔλκεος κρότωνας, καὶ αὖθις βήξ, καὶ ἐρράγη οὖν τὸ αἷμα, καὶ μετὰ τὸ πῦον παχύτερον πτύει, καὶ ὁ πυρετὸς ἰσχυρότερος γίνεται, καὶ τελευτᾷ ἐς πλεύμονα, καὶ καλέεται ῥήγματίας πλεύμονος.

οὖν πάσχει· τὸ μὲν πρῶτον βήξ ἴσχει ξηρή· ἔπειτα ὀλίγω ὕστερον ἀποπτύει τὸ σάλον ὕφαιμον, τοτὲ δὲ καθαρὸν. Οὗτος ἦν μὲν ἐν τάχει παύσεται τῆς νούσου· ἦν δὲ μή, προϊόντος τοῦ χρόνου τὸ αἷμα πλεῖον χωρεῖ, ἐνίστε μὲν καθαρὸν· ἔστι δ' ὅτε καὶ ὑπόσαπρον· πολλάκις δὲ καὶ ἡ φάρυγξ λανθάνει αἵματος πιμπλαμένη· ἔπειτα θρόμβους αἵματος ἐκβράσσειται κατ' ὀλίγον θαμινά· ἐνίστε καὶ ὁδμὴ βαρεῖη ἀπ' αὐτῶν γίνεται, καὶ ἡ φάρυγξ ἔστιν ὅτε τινὸς ἄχνης πίμπλαται, καὶ ῥίγος καὶ πυρετὸς ἐπιλαμβάνει, κατ' ἀρχὰς μὲν τῆς νούσου σφόδρα, προϊούσης δὲ βληχρότερον καὶ ἄλλοτε καὶ ἄλλοτε ἐπιλαμβάνει, καὶ ὁδύνη ἐνίστε ἔγκειται ἐν τοῖσι στήθεσι καὶ ἐν τῷ μεταφρένῳ καὶ ἐν τῇσι πλευρῇσι, καὶ ὁκόταν τὸ αἷμα παύσεται πτύων, σάλον πολλὸν ἀποπτύει ὑγρόν, ἐνίστε δὲ καὶ γλίσχρον. Ταῦτα μὲν οὖν οὕτω πάσχει, μέχρι τεσσαρεσκαίδεκα ἡμέραι παρέλθοιεν· μετὰ δὲ ταύτας ἦν μὴ παύσεται τὸ νοσήμα, λεπίδας ἀπὸ τῆς ἀρτηρίας ἀποβήσων ἀποσπᾷ, οἷας περ ἀπὸ φλυκταινίδων, καὶ ὁδύνη ἐμπίπτει ἐς τὰ στήθεα καὶ ἐς τὸ μετάφρενον καὶ ἐς τὸ πλευρόν, καὶ τῶν ὑποχονδρίων ὡς ἔλκος ψαυόμενος ἀλγεί. Τούτῳ ξυμφέρει ἡσυχίην ὡς μάλιστα τῷ νοσήματι ἔχειν ἔσω, ἦν οὕτως ἔχη· ἦν γάρ τι πονήση, ὅτε πόνος ὀξύτερος καὶ ἡ βήξ μᾶλλον ἢ τὸ πρότερον πιέζει καὶ τὸ ῥίγος καὶ ὁ πυρετὸς μᾶλλον ἔχει, καὶ ἦν πταρῇ, ἡ ὁδύνη ὀξείη προσέβαλεν· ἀλγέει δὲ καὶ ἐν τῇ εὐνῇ, ὁκόταν περιστρέφεται.

Τούτῳ χρή προσφέρειν κτλ.

The order of treatment in *π. τῶν ἐντὸς παθῶν* is the same as in the previous example: since it is a mechanical rupture that is in question, no aetiology as such is necessary, and only the causes of the rupture are recorded. They are omitted in *π. νούσων* II, along with the anatomical detail of the other treatise. Symptoms are identical, but are more detailed in *π. τῶν ἐντὸς παθῶν*, which also records possible variations and contingencies. Both passages divide symptoms into two groups, those occurring before, and after, the crisis on the fourteenth day. But while *π. νούσων* II sets down the symptoms in an indiscriminate list, *π. τῶν ἐντὸς παθῶν* carefully follows the disease through its several stages, and apportions out the symptoms to these stages: τὸ μὲν πρῶτον . . . ἔπειτα . . . προϊόντος τοῦ χρόνου . . . ἔπειτα κτλ. For example, the pharynx

fills with blood only after the condition is already advanced; and it is clear from *π. τῶν ἐντὸς παθῶν*, as it is not from *π. νούσων* II, that the clots of blood are a consequence of this (*ἔπειτα θρόμβους αἵματος ἐκβράσσειται*). Of this division of the disease into stages, *π. νούσων* II has preserved only the mention of the crisis. Again, whereas *π. τῶν ἐντὸς παθῶν* records the intensification of pain, cough, and fever, which occurs after the crisis, as a *consequence of movement at this stage*, they are set down unconditionally in *π. νούσων* II, despite the practical necessity for clarity here. Here again, as in the previous example, while it is possible that the greater coherence of *π. τῶν ἐντὸς παθῶν* may be due to the author's own experience, it is more plausible to suppose that the author of *π. νούσων* II has simply summarized the symptoms by lifting them from their context—preserving, one notices, the same order.

In the parallel passages *π. νούσων* II. 62 (VII, p. 96 L.) and *π. τῶν ἐντὸς παθῶν* 8 (VII, p. 186 L.), which describe rupture of the breast or back, *π. νούσων* II after recording the symptoms remarks: *μάλιστα δὲ ταῦτα πᾶσχει, ἢν τῇσι χερσὶ τι πονήσῃ ἢ ἐφ' ἄμαξαν ἐπιβῇ ἢ ἐφ' ἵππον*. This detail is embedded more closely in the account of *π. τῶν ἐντὸς παθῶν*: there, it occurs in isolation from the rest of the symptoms, in the part devoted to treatment. The author recommends cauterization and a milk diet, with as much rest as possible: *τὸ δὲ λοιπὸν ἡσυχάζων τῷ σώματι μάλιστα διατηρῆσθαι ἢν γάρ τι πονήσῃ ἢ ἐπὶ ἄμαξαν ἀναβᾷς ἢ ἐφ' ἵππον, ἢ τοῖσιν ὤμοισιν ἐν ἄχθῃ αὐτὸς ταλαιπωρήσῃ, κινδυνεύσει πάλιν ὑποτροπιάσαι ἢ νοῦσος, καί, ἢν γένηται, κίνδυνος διαφθαρῆναι. τὸ γὰρ νοῦσημα ὑποστραφέν μᾶλλον πιέζει ἢ καταρχάς*. Here, the link between the forbidden activities and the increased severity of the symptoms, namely, the possibility of a relapse, has been entirely left out by the author of *π. νούσων* II.

In its account of the symptoms of *φλέγμα λευκόν*, *π. τῶν ἐντὸς παθῶν* 21 (VII, pp. 218–20 L.) corresponds closely to *π. νούσων* II. 71 (VII, p. 108 L.) with coincidences in phraseology. Here there is a further parallel in *π. παθῶν* 19 (VI, p. 228 L.). All three note that the severity of the patient's condition varies within the same day. *π. νούσων* II says *οὗτος τῆς αὐτῆς ἡμέρης ποτὲ μὲν ῥᾶων γίνεται, ποτὲ δὲ κάκιον ἴσχει*. The corresponding sentence in *π. παθῶν* reads *τῆς αὐτῆς ἡμέρης ποτὲ μὲν δοκέει ῥᾶων εἶναι, ποτὲ δὲ φλαυρότερος*. *π. τῶν ἐντὸς παθῶν* has a fuller form: *οὗτος τῆς αὐτῆς ἡμέρης ποτὲ μὲν γίνεται ῥᾶων, ποτὲ δὲ πονέει ἐξαπίνης, καὶ δοκέει ἀποθανέεσθαι*. In connexion with the same disease, metastasis to dropsy is noted by *π. παθῶν*, *π. νούσων* I. 3, p. 146 (cf. *Aphorisms* vii. 75, IV, p. 604 L.), and *π. τῶν ἐντὸς παθῶν*: it must have stood in the original source. Here again, *π. τῶν ἐντὸς παθῶν* seems to stand nearer to that source: the account of *φλέγμα λευκόν* is preceded by an account of 'seasonal' (*ἐπιδήμιον*) or 'recent' (*νεώτατον*) phlegm (20, p. 214), and succeeded by the long section 22–26 which discusses various forms of dropsy: this section begins with an account of the metastasis from *φλέγμα λευκόν* to dropsy. The arrangement is therefore systematic. Admittedly, there is no reflection of this arrangement in *π. παθῶν* or in *π. νούσων* II, while in *π. νούσων* I the remark on metastasis occurs in a compendium passage, which is clearly composed of extracts from another work or works. But *π. παθῶν* is highly condensed and selective, while the section of *π. νούσων* II, from 66 to the end of the treatise, in which the chapter on *φλέγμα λευκόν* occurs, seems to have suffered disturbance. If, then, *π. τῶν ἐντὸς παθῶν* does conserve the original order, it is not surprising that these other works should show no trace of it.

The question of the order in which diseases were arranged in the *Κνίδιαι γνῶμαι* and the related question of the principle of arrangement are difficult and probably insoluble. I have already given my reasons for supposing, against Edelstein, that the arrangement *a capite ad calcem* can be definitely traced in *π. παθῶν*, *π. νούσων* II. 1–11 and 12 ff; it is somewhat less clearly discernible in *π. νούσων* III.¹ In the case of *π. νούσων* I, Littré's suggestion (VI, p. 138) that the diseases mentioned are given *exempli gratia* seems to me to be plausible. The elaborate discussion 11–17 of varieties of empyema, which is disproportionate in such a work, might perhaps be explained on the hypothesis that the varieties were multiplied by a later owner of the text, for his own convenience: the work as we have it seems to me a hybrid, arrested in the process of developing from a theoretical treatise to a hand-list of diseases. Whatever the history of this section of the text, it is interesting to notice that the discussion of empyema follows the arrangement *a capite*: 15 (VI, p. 164 L.) τὴν δὲ ἄνω κοιλίην ἔμπνοι γίνονται πολλαχῶς . . . 17 (p. 170): τὴν δὲ κάτω κοιλίην ἔμπνοι γίνονται Apart from these considerations, the arrangement *a capite* seems to have been widespread: it occurred certainly in Egyptian medicine, and possibly in Babylonian.² There are *a priori* grounds as well for supposing that the arrangement is archaic. *Some* arrangement of diseases must have been in use, as a simple necessity of teaching. Since such an arrangement must have antedated the development of physiological and anatomical knowledge, it cannot have been based either on a system of causes, or on a detailed anatomical system. A simple arrangement of head, upper cavity, lower cavity, and extremities, seems to be the obvious answer; and given the importance of the head, often the source of life in primitive thought, it would be natural to start the enumeration from there.

Difficulties, however, arise in connexion with *π. τῶν ἐντὸς παθῶν*. It is best to begin with Galen's information about the *Κνίδιαι γνῶμαι*, in his commentary on *π. διαίτης ὀξέων*.³ The Cnidians, he says, described seven diseases caused by bile; twelve diseases of the bladder; four diseases of the kidneys (cf. *π. τῶν ἐντὸς παθῶν* 14–17); four stranguries; three forms of tetanus (cf. *ibid.* 52–54); four forms of icterus (cf. *ibid.* 35–38); and three forms of phthisis (cf. *ibid.* 10–12).⁴ The heading 'seven diseases caused by bile' suggests an arrangement of diseases according to cause: bile, phlegm, bile and phlegm. Edelstein suggested that this was in fact the principle adopted by the author of *π. νούσων* II.⁵ I do not agree that this was the *main* principle adopted in *π. νούσων* II, or that this treatise is inconsistent with *π. τῶν ἐντὸς παθῶν*. But it was, I think, *one* principle adopted. Now *π. νούσων* II. 40 (VII, p. 56 L.) has the rubric *πυρετοὶ ἀπὸ χολῆς*.⁶ There follow in 40–43 four varieties of fever, of which the first two are caused by bile. The second two are tertian and quartan fever: while no indication of their cause can be deduced from the account of *π.*

¹ On this treatise, see Ilberg, *Festschrift für Lipsius*, pp. 34–35.

² For Egypt, cf. H. E. Sigerist, *A History of Medicine*, I (New York, 1961), p. 354, where the author suggests a religious origin; for Babylonia, *ibid.* p. 419 and notes.

³ *C.M.G.* V. 9, 1, p. 118.

⁴ No argument can be based upon the order of Galen's citations: he had no reason for citing them in the order in which they

may have appeared in the *Κνίδιαι γνῶμαι*.

⁵ The obscure remark in *π. παθῶν* 18 (VI, pp. 226–8 L.) may point to such a classification: καὶ γίνεται μὲν ὁ τρίταιος καὶ ὁ τεταρταῖος ὑπὸ χολῆς καὶ φλέγματος· διότι δὲ ὁ τρίταιος καὶ ὁ τεταρταῖος ἐτέρωθί μοι γέγραπται.

⁶ Cf. the *χολώδεις πυρετοὶ* of *Ep.* IV. 20 (V, p. 156 L.).

νούσων II, which is purely therapeutic, according to π. παθῶν 18 (VI, pp. 226–8 L.), tertian and quartan fever are caused by bile and phlegm. In 44 the author discusses pleuritis, and the diseases in 44–65 are all concerned with the lung and upper cavity: καυσώδης, in 63, belongs in this group since it is partly discussed in relation to its metastasis to peripneumonia. In 66, a disease called ἀναντή is discussed, which is an affection of the digestive system. There follow in 67 and 68 two maladies, both of which have as symptoms fever and the vomiting of bile. It is tempting to connect 67–68 with 40–41, and to see in these πυρετοὶ ἀπὸ χολῆς four of the seven χολῆς νοῦσοι mentioned by Galen. Moreover, 38–43 are out of place, since they interrupt the order *a capite*: 37 brings the section on polyps to a close, and 44 begins diseases of the chest (cf. the arrangement in π. παθῶν). I suggest that the original order was something like 12–37 (diseases of the head); 44–65 (upper cavity); 40, 41, 67, 68, and three others (bilious fevers). 66 and 69 are isolated chapters, which have wandered in after the original displacement, having been added here because of their bilious nature. The same applies to 38 and 39, which discuss two forms of icterus. There follow 70 and 71, both of which are diseases caused by phlegm; while 72–75 are haphazard additions, a common phenomenon at the end of such texts as these. In other words, the diseases in π. νόσων II were originally discussed in the following order: diseases of the head, of the upper cavity, of the lower cavity, fevers caused by bile, diseases caused by phlegm.

These two categories of diseases caused by bile and by phlegm must also have been present in π. τῶν ἐντὸς παθῶν. At the beginning of 20 (VII, p. 214 L.) the author says *περὶ δὲ τοῦ φλέγματος τὰς αὐτὰς γνώμας ἔχω, ὥς καὶ περὶ χολῆς, ἰδέας αὐτοῦ πολλὰς εἶναι*.¹ What this remark introduces is a series of diseases caused by phlegm. By analogy we may suppose that the passage on ‘forms of bile’ (not present in our texts) to which the author apparently refers similarly contained a series of diseases caused by bile. These may even have been Galen’s seven diseases, although it is not of course necessary to suppose so.

The evidence therefore suggests that in the common source of π. νόσων II and π. τῶν ἐντὸς παθῶν some diseases were categorized according to whether they were caused by bile or by phlegm. Unfortunately, a large number of the diseases in π. τῶν ἐντὸς παθῶν are not arranged according to cause, but according to the organ affected, as Edelstein² observes. Moreover, according to the evidence of Galen, this arrangement seems to have been also present in the *Κνίδιαι γνώμαι* (twelve diseases of the bladder; four diseases of the kidney). Of the four diseases of the kidney in π. τῶν ἐντὸς παθῶν the first is stated by the author (14, p. 202) to be caused by phlegm. The cause of the second variety is not given; but it is the general practice of the author in these subdivisions to omit the cause of a variety when it is identical with the preceding variety. The third has black bile assigned as a cause; and the fourth, bile and phlegm. The three affections of the liver in 27–29 are stated to be caused by black bile, bile, phlegm and blood, respectively. The five diseases of the spleen 30–34 are caused by bile, bile (*γίνεται μὲν ἀπὸ τῶν αὐτῶν ἀφ’ ὧν καὶ ἡ πρόσθεν* 31, p. 246), blood (see below on blood as a cause of disease in this treatise), phlegm, black

¹ *ἰδέας* might = ‘forms of disease caused by phlegm’ rather than ‘forms of phlegm’; cf. 21 (p. 218) where in *ἰδέην ἀλλοίην ἔχειν τοῦ ἐπιδημίου δοκεῖται*, *ἰδέην* refers to the appearance of the symptoms. See, however,

Fredrich, p. 47. In any case the author’s main interest is in the different forms of disease which different kinds of phlegm cause.

² *Op. cit.*, p. 162.

bile. Icterus, throughout the Corpus, is a bilious disease, characterized by yellowness of complexion and of urine: *π. παθῶν* 32 (VI, p. 244 L.) assigns the cause to bile; in consistency with the brevity of this treatise, only one variety is given. Of the three varieties in *π. τῶν ἐντὸς παθῶν* 35–38, the first is caused by bile. For the second, no cause is stated, so that one assumes it to be bile also, and this is confirmed by a comparison with *π. νούσων* II. 38–39. There, two varieties are given: the first (38, VII, p. 54 L.), although it does not correspond in all symptoms with the second variety of *π. τῶν ἐντὸς παθῶν*, shares in its symptoms the combination of yellowness with blackish veins, and *π. νούσων* II notes that the urine is bilious.¹ For the third kind in *π. τῶν ἐντὸς παθῶν* the cause is not stated; but the fourth kind lacks the yellowness characteristic of the other three, and is caused by *phlegm*. Of the three varieties of phthisis (10–12), the first is caused by phlegm; the second, with symptoms similar to the first, presumably has the same cause; the third is caused by phlegm and bile. Of the five varieties of the disease known as typhus (39–43), the first and the third are caused by bile, the fifth by black bile, while the second and fourth have mechanical causes, an excess of moisture and bad coction of fruit respectively, into which bile and phlegm do not enter. Finally, the causes for the four varieties of *παχέα* (47–50), are bile and phlegm, bile, phlegm, white phlegm.

The situation, then, is that *π. νούσων* II uses two principles of classification: the principle *a capite*, and the principle of bile and phlegm. *π. τῶν ἐντὸς παθῶν* has, as well as the principle *a capite* (1–13 = latter portions of *π. νούσων* II, upper cavity; 14 ff. organs of lower cavity), a principle of classification according to the organ affected. This is then *further subdivided* on a different principle, that of bile and phlegm. This principle of subdivision is again used in diseases which are not classified according to the organ affected, i.e. icterus, phthisis, typhus, and the *παχέα*. In other words, there are two principles of classification in *π. νούσων* II, and three in *π. τῶν ἐντὸς παθῶν*; moreover, these three are used in combination. Finally, since not only some of the diseases cited by Galen correspond to those in *π. τῶν ἐντὸς παθῶν*, but the actual *numbers* of the subdivisions correspond as well, it is probably safe to assume that the principle of subdivision, upon which the numbers are based, was also the same. The situation in *π. τῶν ἐντὸς παθῶν* reflects the system in the *Κνίδιαι γνώμαι*.

A little reflection will show that such a combination of principles, so far from being surprising, is only to be expected. Whereas a rough classification according to very general regions of the body may have sufficed at a stage when knowledge of anatomy was rudimentary, and complex varieties of disease were not yet recognized, it was no longer adequate when knowledge and theory advanced. In fact, each of the three systems used in the Cnidian works has disadvantages which would obviously make it impracticable if used in isolation. A classification according to organs is useless for a disease such as icterus, which is not connected with any particular organ, or indeed with any particular region of the body, since its varieties affect both upper and lower cavities. It falls most easily under the rubric of the humour which causes it,

¹ Treatment in both works is fairly similar: white wine, parsley, and incision of the blackened veins, but there are, as usual, considerable differences in detail. Cf. also *π. νούσων* III. 11 (VII, p. 130 L.), where the

two symptoms of itching caused by the patient's clothes, and his irritation at being spoken to, reappear in the second and first forms of *π. τῶν ἐντὸς παθῶν* respectively.

and may be grouped, as it probably was in *π. νούσων* II, among diseases caused by bile. But even so, a sub-variety may be detected, as in *π. πῶν ἐντὸς παθῶν*, which is caused by phlegm:¹ it would be an obvious absurdity to separate it from its congeners on this account. Again, a grouping according to bile and phlegm, apart from cutting across classification according to organs, which has advantages of its own,² is too wide to be of practical use, since it offers only three categories. Used, on the other hand, as a principle of subdivision among diseases classified according to the organ affected, its advantages are obvious, as far as exposition and teaching are concerned, while from the point of view of *practice* it is entirely necessary, since treatment varies according to cause. It seems likely then that in the *Κνίδιαι γνῶμαι* not one but three principles of arrangement were used; and that this classification is reflected in the Cnidian treatises which derive from that work.³

π. παθῶν and π. νούσων I

Some further light is thrown on the common source of the Cnidian works by a comparison of certain passages in *π. παθῶν* with passages in *π. νούσων* I. In *π. παθῶν* 11 (VI, p. 218 L.), among the symptoms of *καῦσος* the following is included: τὰ μὲν ἔξω ψυχρὸς γίνεται, τὰ δὲ ἔσω θερμὸς (cf. *ibid.* 14, VI, p. 222 L. on *καυσώδης*: ἦν δὲ τὰ μὲν ἔξω μὴ πυρώδης ἢ σφόδρα, τὰ δὲ ἔσω). For the formulation ἔξω-ἔσω and the combination of heat and cold, there is a parallel in the account of *καῦσος* in *π. νούσων* I. 29 (VI, p. 198 L.) where the following explanation is given: τὰ ἔνδον, being moist, do not dry out completely; while τὰ ἔξω, being naturally dry, are dried out even more and therefore become cold and dry to the touch. Here the aetiology given in *π. νούσων* I has suggested the formulation of the symptom in *π. παθῶν*.⁴

There are other parallels between the descriptions of *καῦσος* in *π. νούσων* I and *π. παθῶν*. The author of *π. παθῶν* says 'the tongue becomes rough and black through the heat of the breath' (τοῦ πνεύματος ὑπὸ γε θερμότητος: the MS. θ has ὑπὸ θερμότητος τοῦ πνεύματος). The corresponding passage in *π. νούσων* I. 29 reads ἡ τε γλῶσσα καὶ ἡ φάρυγξ τρηχύνεται τε καὶ ἀναιίνεται ὑπὸ τοῦ πνεύματος τοῦ ἔνδον καὶ τῆς θερμότητος. In *π. νούσων* I 'the heat of the breath inside' is perfectly understandable: it is explained by the aetiological description which has preceded. The blood, heated by bile, in its turn heats the inner parts of the body, which being naturally moist, retain the heat. The remark in *π. παθῶν*

¹ It is interesting that *Ep.* II. 1. 10 (V, p. 82 L.) recognizes two varieties of icterus, one coming from the liver, which produces a pallid (*ὑπόλευκον*) complexion, and which is classified with dropsy and *φλέγμα λευκόν*; and the other coming from the spleen, which produces a dark complexion. The first corresponds to the fourth variety in *π. τῶν ἐντὸς παθῶν* 38 (VII, p. 260 L.) (not to the first: though the complexion there is described as *ώχρολευκον*, the disease in *Ep.* II is definitely phlegmatic); and the second perhaps to the first variety in *π. νούσων* II. 38 (VII, p. 54 L.).

² In discussing these classifications, it is necessary to remember that their *practical* importance was the prime consideration. They were not embarked upon as exercises

in logic, like Plato's divisions, nor as exhaustive descriptions of a field, like Aristotle's; but as means towards the twofold end of teaching, and of medical practice.

³ Since most of the organs recognized by Cnidian anatomy are in the lower *κοιλίη*, this sufficiently explains the predominance of classification by organ in *π. τῶν ἐντὸς παθῶν*, which is mainly concerned with this region.

⁴ For the expression cf. also *π. διαίτης* *οξέων* (I, p. 149, 11 Kuehlewein); *π. παθῶν* 28, p. 240; the Cnidian-influenced *π. τόπων κατ' ἀνθρώπον* 45 (VI, p. 340 L.); *Ep.* VI. 4. 12 (V, p. 310 L.); and 5. 15 (V, p. 322 L.). It is coupled with heat and cold in the last passage, on which see Deichgräber, *op. cit.*, pp. 54-55.

on the other hand is obscure: no aetiological description has so far been given (and when it is given, it omits reference to the process of heating); while the corresponding symptom, τὰ δὲ ἔσω θερμός, comes *after* the mention of θερμότης. Here again the key to the account of symptoms in π. παθῶν is provided by the aetiology of π. νούσων I, which π. παθῶν gives in an abbreviated and incomplete form. The passage in π. παθῶν is another example of the way in which a symptomatic passage is written up from an aetiological passage, with unfortunate results for its intelligibility. (Cf. the relation between π. νούσων II. 1–11 and 12 ff.)

In connexion with the same disease, the author of π. παθῶν notes that καῦσος often changes to peripneumonia. Metastases between the acute diseases are common enough in the Cnidian works, but καῦσος–peripneumonia does not, as far as I know, occur elsewhere except in the corresponding passage of π. νούσων I. There, a physiological explanation is given (VI, p. 200 L.) for the metastasis of both pleuritis and καῦσος to peripneumonia: the heating of the upper cavity in these diseases causes an attraction of matter to the lung. π. παθῶν adds that when this change does occur, few survive it. The equivalent remark in π. νούσων I again occurs in an aetiological context: ἄτε ἀσθενέες ἤδη ἐόντες, καί, ἐτέρης νούσου κακίης ἐπιγεννηθείσης, οὐ δυνάμενοι τὰς ἡμέρας διατελέειν, ἄχρις οὗ τὸ σίαλον πεπανθῇ ἐν τῷ πλεύμονι. The relation between the two works is similar to the relation between π. νούσων II and π. τῶν ἐντὸς παθῶν: it is more reasonable to suppose that an isolated symptomatic or prognostic remark has been lifted from its context, than that the remark has been subsequently provided with an aetiological context.

For a similar instance, compare π. παθῶν 7 (VI, p. 214 L.), the description of pleuritis. The author prescribes: τοῦ μὲν πλευροῦ τῆς ὀδύνης διδόναι, ὃ τι ἀποστήσει ἀπὸ τοῦ πλευροῦ τό τε φλέγμα καὶ τὴν χολήν. No aetiology has been given, and when it is, it refers merely to the external cause of the disease. In π. νούσων I. 26 (VI, p. 192 L.), however, the following explanation is given: the phlegm and bile contained in the flesh are separated off, and stick (προσπύγνυται) to the side, causing acute pain (ὀδύνην παρέχει ἰσχυρήν). In the same passage of π. παθῶν, the brief aetiological remark is a fair example of the careless and indifferent attitude of this author to aetiological matters: γίνεται δὲ ἡ νοῦσος αὕτη μάλιστα μὲν ἐκ ποσίων, ὅταν τις, ὑγράζοντος τοῦ σώματος, ἢ μεθύων ἢ νήφων ῥιγώσῃ. Compare this with the account in π. νούσων I: ἡ μὲν πλευρίτις, ὁκόταν πόσιες ἀλέες τε καὶ ἰσχυραὶ κάρτα λάβωσι· διαθερμαίνεται γὰρ τὸ σῶμα ἅπαν ὑπὸ τοῦ οἴνου καὶ ὑγραίνεται (whereas π. παθῶν does not make it clear that the moistening is a consequence of the heating) μάλιστα δὲ ἡ τε χολή καὶ τὸ φλέγμα . . . ὁκόταν οὖν τούτων κεκινημένων τε καὶ διυγρασμένων συγκυρήσῃ ὥστε ῥιγῶσαι μεθύοντα ἢ νήφοντα κτλ. One notices in particular the careful attention paid to temporal sequence in the description, an attention which is also characteristic of π. τῶν ἐντὸς παθῶν, and, I believe, of the *Κνίδιαι γνῶμαι*.¹

In the case of καῦσος, the symptoms which π. παθῶν records are clearly based on the lucid and precise physiological account which is preserved in π. νούσων I. When, however, the author of π. παθῶν comes to give the aetiology,

¹ λέξις εἰρομένη, which may have been characteristic of the *Κνίδιαι γνῶμαι* (cf. π. νούσων II. 11, p. 18) is of course particularly suited to such descriptions. The author of

π. νούσων I has imposed a later literary elegance on his source, but the structure of the thought remains.

he writes: ἡ δὲ νοῦσος αὕτη γίνεται ὑπὸ χολῆς, ὅταν κινηθεῖσα ἐντὸς τοῦ σώματος καταστηρίξη. This is inconsistent with the aetiology of π. νούσων I, which ascribes the cause to bile indeed, but uses it as an agent to heat the blood, and says nothing of its becoming 'fixed'. It is, moreover, inconsistent with the account of π. παθῶν itself. In view of the comparative indifference of the author of π. παθῶν to questions of aetiology, the inconsistency is not surprising: the sentence is a vague formula which would in fact cover a number of diseases in these works. There are other examples in π. παθῶν. In 16 (VI, p. 224 L.) the author gives an account of the causes of pain: a condensation or collection (ξυνεστηκότα) and fixation (στή) of bile and phlegm, which causes acute pain and discomfort, πόνον τε καὶ ὀδύνην ἰσχυρὴν παρέχει, in whatever part of the body it settles. Again, in 20 (p. 230): χολὴ ἢ φλέγμα . . . ἐς τὸν σπλῆνα καταστηρίξη; and 30 (p. 242): καταστηρίζουσιν αἱ ὀδύναι (followed immediately by treatment with ψύγματα); *ibid*: κινηθέντα (bile and phlegm) ἐς τὰ ἄρθρα καταστηρίξη: π. νούσων I also makes use of καταστήριξις: 15 (VI, p. 164 L.) ὁκόταν . . . ἐλκωθῇ τὸ πλευρὸν ὑπὸ τοῦ προσπεπρωκότος φλέγματός τε καὶ χολῆς; *ibid.*, p. 166 γίνονται δὲ ἔμπυοι, καὶ ἦν φλέγμα ἐκ τῆς κεφαλῆς ῥυέν πρὸς τὸ πλευρὸν προσπαγῇ καὶ σαπῇ; 17 (p. 170): sepsis of the lower cavity occurs ὅταν φλέγμα ἢ χολὴ συστή ἅλεις μεσηγὺ τῆς σαρκὸς καὶ τοῦ δέρματος; 19 (p. 172) ὁκόταν φλέγμα ἢ χολὴ ξυστραφῇ, σήπεται . . . ὁκόταν δὲ πεπαίνηται, ὀδύνη γίνεται καὶ πρόσθεν καὶ ὀπίσθεν ὀξείη (here the στήριξις is the cause of pain as in π. παθῶν); the word itself occurs in 20 (p. 178): ὅπῃ ἂν τοῦ σώματος . . . καταστηρίξη (sc. τὸ ὑγρὸν). This explanation in terms of coagulated deposits of bile or phlegm is common to all the Cnidian works: it is an essential part of Cnidian pathology, and its most extensive use is in π. τῶν ἐντὸς παθῶν.¹ One interesting example is in the account of phrenitis in π. παθῶν 10 (p. 218). There the author says ἡ δὲ νοῦσος γίνεται ὑπὸ χολῆς, ὅταν κινηθεῖσα πρὸς τὰ σπλάγχνα καὶ τὰς φρένας προσίξη. In the corresponding account in π. νούσων I. 30 (p. 200), although the disease is referred to bile, nothing is said either of the φρένες or of a deposit of bile: the disease comes about, as in καῦσος, when bile overheats the blood. The φρένες are, however, mentioned in π. νούσων III. 9, p. 128, where pain in the φρένες is included among the symptoms. Apart from these two passages, the φρένες are not associated with phrenitis elsewhere in the Corpus.² Now one of the most frequent uses of στήριξις of bile or phlegm is as an explanation of pain. As well as π. παθῶν 16 (VI, p. 224 L.) and the account of pleuritis in π. νούσων I. 26 (VI, p. 192 L.), the following examples from π. τῶν ἐντὸς παθῶν are

¹ 3, p. 174 (πλευμονίς) ὁκόταν . . . ξυστραφῇ καὶ ξυμπαγῇ (sc. αἷμα); 14, p. 202 (first disease of kidneys) ὁκόταν ὁ νεφρὸς ἐς ἑωυτὸν ἀναλαβὼν φλέγμα μὴ ἀφίη πάλιν, ἀλλ' αὐτοῦ ξυμπωρωθῇ; 16, p. 204 (third disease) ὁκόταν χολὴ ἐς τὰ φλέβια συρῶν τὰ τεύοντα ἐς τὸν νεφρὸν, καὶ ὁκόταν στή, ἐλκοῖ τὰ φλέβια; 35, p. 252 (first icterus) ἴσταται οὖν ἡ χολὴ ὑπὸ τῷ δέρματι καὶ ἐν τῇ κεφαλῇ; 36, p. 256 (second variety) τὸ δὲ ὑγρὸν τὸ ἐν τῷ σώματι πηγνυται ἐν τῷ δέρματι; 43, p. 272 (fifth τύφος) ὁκόταν τὸ ὑγρὸν τὸ ἐν τῷ σώματι συμπαγῇ καὶ ἀναξηρανθῇ μᾶλλον τοῦ καιροῦ; 48, p. 284 (νούσημα παχύ) γίνεται μὲν ἀπὸ χολῆς, ὁκόταν χολὴ ἐπὶ τὸ ἥπαρ ἐπιρῶνῃ καὶ κατὰ τὴν κεφαλὴν καταστή; 51, p. 292: ἰσχυάς is caused

by drying and πήξις of the fluid in the joints. It must be admitted, however, that στήριξις is not confined to the Cnidian treatises, though its use there is systematic. Cf. *Ep.* IV. 35 (V, p. 178 L.); VI. 2. 6 (V, p. 280 L.). It is related to the doctrine of ἀπόστασις, a doctrine characteristic of the *Epidemics*, in π. χυμῶν 7 (V, p. 488 L.) and in π. διαίτης ὀξέων (I, p. 162, 9 Kuehlewien). Thucydides uses the term, presumably as a familiar one, in 2. 49.

² π. παθῶν notes pain in the ὑποχόνδρια, particularly on the right side towards the liver. Cf. the case of Apollonius, *Ep.* III (III, p. 136 ff. L.); tension of the belly on the right side in *Ep.* IV. 45 (V, p. 186 L.).

significant: in 28 (VII, p. 240 L.) the fixation of bile on the liver causes acute pain; 41 (p. 266) καταστηρίζεται (ἡ χολή) . . . καὶ ὀδύνας παρέχει ὀξείας. Particularly interesting are cases where ὀδύνη itself is the subject of ἐνστηρίζειν, καταστηρίζειν etc.; 49 (p. 288) ἐς τὴν κεφαλὴν ἐξαπίνης ὀδύνη στηρίζει ὀξείη; 19 (p. 214) ἐς δὲ τὸν σπλῆνα ὀδύνη ἐνστηρίζει ὀξείη with two more examples further down; π. παθῶν 29 (VI, p. 240 L.) στηρίζουσα ἡ ὀδύνη. In view of the aetiology, στηρίζειν etc. in these passages must, I think, be taken literally, as referring to the substance or deposit causing the pain: no distinction is made between the sensation and its cause. For an example of similar concreteness of thought, cf. π. τῶν ἐντὸς παθῶν 50 (VII, p. 292 L.): καὶ ὁκόταν στῇ (sc. τὸ νούσημα: i.e. the φλέγμα which causes the νούσημα) ἐν αὐτῇ (sc. τῇ κοιλίῃ).¹

In this case, the aetiology of π. παθῶν and the symptom noted in π. νούσων III may go back to a common source. Otherwise, however, the accounts of phrenitis in π. παθῶν and π. νούσων III have nothing in common (no aetiology is given in π. νούσων III), except that both note a milder and a more acute form of the disease; and neither has any point in common with π. νούσων I,² except that the disease is also caused by bile in π. παθῶν. There is, however, a connexion in aetiology between π. νούσων III. 15 (VII, p. 140 L.) and π. νούσων I. 7 (VI, p. 152 L.). In the latter passage, which is a compendium of beneficial and harmful effects, the author notes as harmful a flux occurring in pleuritis or peripneumonia (cf. *Aphorisms*, IV, p. 566 L.). Such aphorisms might come from any source, but it happens that the same observation is made in π. νούσων III, and in that passage it is attached to a coherent explanation: the effect of a flux is to dry out the upper κοιλίη, and so prevent expectoration.³

The aetiology contained in π. νούσων I illustrates a passage in π. νούσων II. 44 (VII, p. 62 L.). There, among the symptoms of pleuritis the author mentions pain in the groin and urination of blood. Urination of blood also occurs among the symptoms of 'dorsal pleuritis' (ἡ ἐς τὸ νῶτον πλευρίτις) in π. νούσων III 16 (VII, p. 144 L.). The reason appears in π. νούσων I. 26 (VI, p. 194 L.): pain in the side is caused by the chilling and coagulation of blood in the hepatic and splenic veins, the anatomy of which is described by the author. Often the pain moves (τράπηται ὀδύνη: the same concrete use

¹ The pathological principle of στήριξις is behind the frequent recommendation in these works of fomentations, χλιάσματα, as a means of relieving pain. Cf. π. παθῶν 16 (VI, p. 224 L.): bile and phlegm, when ξυνεστηκότα, cause pain, but on the application of fomentations, they become διακεχυμένα, and the pain disappears. (Contrast π. τόπων κατ' ἀνθρώπον 42 [VI, p. 334 L.], where pain is explained as the effect of heat and cold on their contraries.) The remedy itself is of course traditional, even instinctive; certainly much older than the aetiology which explains it.

² The difference was noted by Wellmann, *Fragmente der sizilischen Aerzte* (Berlin, 1901), pp. 17 ff., who argued that π. νούσων I goes back to the 'Sicilian' doctrine that blood is the seat of φρόνησις, while π. παθῶν represents the view that its seat is in the φρένες. This, if

true, is another instance of the eclectic character of π. νούσων I. But we should have to conclude that π. νούσων II. 3 (VII, p. 10 L.) also goes back to the same doctrine: παραφρονέει δὲ ὅταν τὸ αἷμα τὸ ἐν τῇ κεφαλῇ ὑπὸ χολῆς ἢ φλέγματος ὑπερθερμανθῇ. (Incidentally, this passage contradicts the doctrine of π. ἱρῆς νούσου, and therefore weakens Pohlenz's theory about the source of the aetiology of π. νούσων II. 1-11.)

³ Each of these works has its own characteristics: π. νούσων III, while it gives no aetiology as such, is noticeably careful to give an explanation for every stage of the treatment it recommends. With the present passage, compare the account of pleuritis in 16 (VII, p. 142 L.). The clarity and logical consequence with which the author of π. νούσων III describes treatment are reminiscent of the style of π. τῶν ἐντὸς παθῶν.

as was noticed before) to the lower parts, and is conveyed through the veins to the bladder, causing much urination of a bilious nature.

The explanation of pain and its movement over the body by a *στήριξις* of blood in the splenic and hepatic veins lies behind other passages in the Cnidian works.¹ *π. νούσων* III. 15 (VII, p. 136 L.) (peripneumonia): *ὀδύνη ὑπὸ τῇν ὠμοπλάτην καὶ εἰς τὴν κληῖδα καὶ ἐς τὸν τιτθόν*: here the pain follows the course of the splenic and hepatic veins. The same distribution of pain occurs in *π. τῶν ἐντὸς παθῶν* 25 (VII, p. 230 L.), in which dropsy originating from the spleen is described: *ὀδύναί τε γὰρ ὀξεῖαι ἐν τῷ σπληνὶ καθιστάσι, μεταπίπτουσι δὲ καὶ ἐς τὸν ὦμον καὶ ἐς τὴν κληῖδα καὶ ἐς τὸν τιτθόν καὶ ἐς τὸν λαγόννα*. In 32 (p. 248) (third disease of the spleen) the same distribution is given, including the shoulder blade (cf. *π. νούσων* III above). Moreover, on p. 250 in connexion with the same disease the author recommends bleeding *ἀπὸ τοῦ ἀγκῶνος τοῦ ἀριστεροῦ τῆς εἴσω φλεβός* (i.e. from the splenis); this is paralleled in *π. παθῶν* 20 (VI, p. 230 L.), where the advice is given, in conditions of the spleen, *τὴν φλέβα τῇν σπληνίτιν ἀφιέναι πυκνά*.² Although we do not possess the part of *π. τῶν ἐντὸς παθῶν* which dealt with diseases of the upper *κοιλίη* we can perhaps infer that in its account of pleuritis the same description of pain was given. In 27 (VII, p. 236 L.), in discussing hepatitis, the author advises as a remedy for pain the same fomentations as for pleuritis. Earlier in the passage the symptom has been included of pain in the liver, the lower ribs, shoulder, collar-bone, and under the nipple. Thus the doctrine on this point is identical in *π. νούσων* I, II, III, *π. παθῶν*, and *π. τῶν ἐντὸς παθῶν*.

CNIDIAN AETIOLOGY

The Cnidian works are linked by a common aetiology, which appeared in the *Κνίδιαι γνῶμαι*. It is time to examine this aetiology in more detail. In attempting to reconstruct it, one must remember that, with the exception of *π. νούσων* I, these treatises are not primarily interested in aetiology, and their remarks on the subject are necessarily incomplete; while *π. νούσων* I itself, a handbook written for a special purpose, is abbreviated from a more extensive source. Even so, it presents a coherent system, with which the other works agree on essential points.

¹ For the vascular system to which the author refers, cf. Fredrich, *Hippokratische Untersuchungen*, pp. 57 ff. and his remark on p. 61: 'Ein Unterschied zwischen koischer und knidischer Schulanschauung lässt sich nicht feststellen.' The author of *π. τόπων κατ' ἀνθρώπον* 3 (VI, pp. 280–2 L.) appears to have a system of his own (cf. also Fredrich, p. 60); in this respect it is significant that the aetiology which this work gives for peripneumonia (VI, p. 302 L.) and pleuritis (ibid. and p. 316 L.) is quite different from the aetiology which appears in *π. νούσων* I, and which is implied in *π. παθῶν* and *π. νούσων* II. In these works, the pain associated with the disease is caused by a *στήριξις* of blood in the hepatic and splenic veins, where they touch the side; *π. τόπων κατ' ἀνθρώπον* on the other hand says nothing

about *στήριξις* here. Peripneumonia occurs when the lungs swell so as to touch the sides; if one side only is touched, the disease is pleuritis; 'dry' pleuritis is caused when the lung collapses and sticks to the side. It is interesting that a remark in Polybus' account of the vascular system implies the same aetiology of pain as in the Cnidian works: *π. φύσις ἀνθρώπου* 11 (VI, p. 60 L.): *ἐπιτηδεύειν δὲ χρὴ τὰς τομὰς ὡς προσωτάτω τάμνειν ἀπὸ τῶν χωρίων, ἔνθα ἂν αἱ ὀδύναί μεμαθήκωσι γίνεσθαι καὶ τὸ αἷμα ξυλλέγεσθαι*.

² Apart from this passage, the actual name *σπληνίτις* is not used elsewhere in the Corpus, so far as I am aware; although apart from later writers, such as Rufus of Ephesus, Aristotle uses it in connexion with Diogenes of Apollonia (*Hist. An.* 3. 3, 512^a 5–6).

The system is summarized in *π. νούσων* I. 2 (VI, p. 142 L.): *Αἱ μὲν οὖν νοῦσοι γίνονται ἅπασαι, τῶν μὲν ἐν τῷ σώματι ἐνεόντων, ἀπὸ τε χολῆς καὶ φλέγματος, τῶν δὲ ἔξωθεν, ἀπὸ πόνων καὶ τρωμάτων, καὶ ὑπὸ τοῦ θερμοῦ υπερθερμαίνοντος, καὶ τοῦ ψυχροῦ υπερψύχοντος, καὶ τοῦ ξηροῦ υπερξηραίνοντος, καὶ τοῦ ὕγρου υπερυγραίνοντος. Καὶ ἡ μὲν χολὴ καὶ τὸ φλέγμα γινομένοις τε συγγίνεται, καὶ ἐν αἰεὶ ἐν τῷ σώματι ἢ πλέον ἢ ἔλασσον· τὰς δὲ νοῦσους παρέχει, τὰς μὲν ἀπὸ σιτίων καὶ ποτῶν, τὰς δὲ ἀπὸ τοῦ θερμοῦ υπερθερμαίνοντος καὶ ἀπὸ τοῦ ψυχροῦ υπερψύχοντος.* The parallel passage in *π. παθῶν* (VI, p. 208 L.) reads as follows: *Νουσήματα τοῖσιν ἀνθρώποισιν γίνεται ἅπαντα ὑπὸ χολῆς καὶ φλέγματος· ἡ δὲ χολὴ καὶ τὸ φλέγμα τὰς νοῦσους παρέχει, ὅταν ἐν τῷ σώματι ἢ υπερξηραίνεται, ἢ υπερυγραίνεται, ἢ υπερθερμαίνεται, ἢ υπερψύχεται. Πάσχει δὲ ταῦτα τὸ φλέγμα καὶ ἡ χολὴ καὶ ἀπὸ σιτίων καὶ ποτῶν, καὶ ἀπὸ πόνων καὶ τρωμάτων, καὶ ἀπὸ ὁσμῆς καὶ ἀκοῆς καὶ ὄψιμος καὶ λαγνείης, καὶ ἀπὸ τοῦ θερμοῦ τε καὶ ψυχροῦ· πάσχει δέ, ὅταν τούτων ἕκαστα τῶν εἰρημένων ἢ μὴ ἐν τῷ δέοντι προσφέρηται τῷ σώματι, ἢ μὴ τὰ εἰωθότα, ἢ πλείω τε καὶ ἰσχυρότερα, ἢ ἐλάσσω τε καὶ ἀσθενέστερα.*

In *π. νούσων* I the manuscript *θ* omits the words *καὶ τοῦ ξηροῦ υπερξηραίνοντος*, καὶ τοῦ ὕγρου υπερυγραίνοντος¹, nor does it use them at the end of the chapter. On the ground of this omission, Edelstein² argued that the systems in the two works are not identical, but that *π. παθῶν* has its individual modification of the doctrine in *π. νούσων* I. Such an omission would in any case be insignificant, in view of the abbreviated character of both works; but whether the actual words occurred or not, the doctrine itself is confirmed in *π. νούσων* I. 26 (VI, p. 192 L.). In that passage, giving the causes of pleuritis and peripneumonia, the author writes: *διαθερμαίνεται γὰρ τὸ σῶμα ἅπαν ὑπὸ τοῦ οἴνου καὶ ὑγραίνεται, μάλιστα δὲ ἢ τε χολὴ καὶ τὸ φλέγμα διαθερμαίνεται τε καὶ ὑγραίνεται.* Cf. 18 (p. 172): erysipelas occurs in the lung *ὅταν ὑπερξηρανθῇ*: the causes are *καῦμα, πυρετοί, τάλαιπωρή, ἀκрасία*. So far *π. νούσων* I and *π. παθῶν* are consistent: cf. the latter, 17 (VI, p. 224 L.): *ὅταν τὸ σῶμα ὑπὸ τοῦ ἡλίου θαλφθῇ, ὑγραίνεται· ὑγραίνόμενον δὲ νοσέει, ἢ πᾶν, ἢ ἐς ὃ τι ἂν καταστηρίξῃ τὸ φλέγμα καὶ ἡ χολή.*

It is more significant that *π. νούσων* I has the words *καὶ ἡ μὲν χολὴ καὶ τὸ φλέγμα γινομένοις τε συγγίνεται, καὶ ἐν αἰεὶ ἐν τῷ σώματι ἢ πλέον ἢ ἔλασσον*. Nothing of the sort is said in *π. παθῶν*, and yet I venture to think that it is implied there, as well as in *π. νούσων* II and *π. τῶν ἐντὸς παθῶν*. First we should look at some passages in the remainder of *π. νούσων* I. The passage in 26 (p. 192) quoted above, *τὸ σῶμα ἅπαν . . . μάλιστα δὲ ἢ τε χολὴ καὶ τὸ φλέγμα* means quite simply 'the body as a whole . . . and in particular its bile and phlegm'. It confirms the doctrine expressed in 2. It is similarly confirmed by the expression in 15, p. 168: *ὁκόταν γὰρ διαθερμανθῇ* (sc. *ἡ κεφαλὴ*) *ὑπὸ τῆς κοιλίης* (i.e. the upper cavity, *ἡ ἄνω κοιλίη*: the doctrine as in the description of *καῦσος* in 29 [p. 198]) *ἔλκει ἐς ἐωντήν ἐκ τοῦ σώματος τὸ λεπτότατον τοῦ φλέγματος*. Read in the context of the whole chapter, the implication is that *φλέγμα* is a permanent ingredient. One may compare also 26 (p. 192) *ὅσον ἐν αὐτῇ τῇ σαρκὶ ἐν χολῆς καὶ φλέγματος*. There is nothing in *π. νούσων* I to contradict its initial doctrine, and its language tends rather to confirm it. Now *π. παθῶν*, *π. νούσων* II. 1–11 and 12 ff., and *π. τῶν ἐντὸς παθῶν*, not being primarily concerned with aetiology, take bile and phlegm for granted. Their remarks on the subject range from the vagueness of 'this disease is caused by

¹ Cf. Littré, VI, p. 142 n. 17.

² Op. cit., p. 161, n. 1.

phlegm', through the greater precision of 'phlegm flowing from the head', to 'phlegm flowing from the head, to which it is drawn from the rest of the body'. As in *π. νούσων* I, there is no passage anywhere in these works which contradicts the doctrine that bile and phlegm are permanent ingredients in the body; and there are numerous passages which tend to confirm it, if only through significant silence about their origin. Fortunately, however, we are not obliged to rely on passages of dubious interpretation. The doctrine is implied by another aspect of the theory.¹

π. νούσων I. 2 divides the causes of disease into internal causes, namely bile and phlegm, and external causes:² the latter are fatigue, wounds, heat, and cold (dryness and moisture). This is again stated succinctly in 11 (p. 158): τῶν μὲν ἐν τῷ σώματι ἐνεόντων, ἀπὸ χολῆς καὶ φλέγματος, τῶν δὲ ἔξωθεν, ἀπὸ [τοῦ ἡέρος ἐπιμιγνυμένου τῷ συμφύτῳ θερμῷ, ἀτὰρ καὶ ἀπὸ] πόνων καὶ τρωμάτων.³ To this list of external causes, the author of *π. παθῶν* adds food and drink, smell, hearing, sight, and sexual intercourse. He also makes it clear, as the author of *π. νούσων* I does not, that these two categories of causes are connected: the external causes act upon the internal causes, bile and phlegm, as agents causing dryness, moistening, heating, or chilling. This relation between the two kinds of cause is illustrated in *π. παθῶν* 27 (VI, p. 240 L.), a passage which provides a neat commentary on the two passages we have been considering. There, the author says γίνεταί δὲ ταῦτα τὰ ἀλγήματα (i.e. cholera and diarrhoea) ὅσα ἐκ ποσίων γίνεταί ἢ ἐξ εὐωχίης, ὅταν τὰ σιτία καὶ τὰ ποτά πλέω τοῦ εἰωθότος ἐς τὴν κοιλίην ἐσέλθῃ, καὶ τὰ ἔξωθεν εἰωθότα ὑπερθερμαίνειν τὸ σῶμα κινῆ χολὴν καὶ φλέγμα. The patient overeats, and is exposed to heat which sets in motion the bile and phlegm already within him. Thus a comparison of *π. νούσων* I and *π. παθῶν* indicates a coherent and unified system, upon which both depend, and which has reached a sufficient degree

¹ The four humours of *π. νούσων* IV are also connate (VII, p. 542 L.), but they are as well taken in with food and drink (ibid., p. 544: for the differences in doctrine in this respect between *π. νούσων* IV and *π. φύσιος ἀνθρώπου*, cf. S. Hornstein, 'Untersuchungen zum hippokratischen Corpus', *Primitiae Czernovicienses* ii [1911], pp. 76–77). This may represent a combination of two originally distinct doctrines; traces of both are found in the Cnidian works.

² The category of external cause is common. Alcmaeon seems to have been the first to distinguish it (Diels–Kranz 14 B 4: ἐγγίνεσθαι δὲ . . . κακὰ τῶν ἔξωθεν αἰτιῶν, which are then specified as waters, places, fatigue, and ἀνάγκη), followed by Philistion (*Anonymus Londinensis*, xx. 30 ff. Diels: diseases arise παρὰ τὰ στοιχεῖα or παρὰ τὴν τῶν σωμάτων διάθεσιν or παρὰ τὰ ἐκτός, where the last are further specified as wounds, excess of temperature or change of temperature, and change to an unsuitable and harmful diet). Alcmaeon's other causes are ὡς ὑφ' οὗ and ὡς ἐξ οὗ ('Ursache' and 'Veranlassung': Diels). The first is described as operating 'by excess of heat or cold', which

corresponds to the explanation given by Menon for Philistion's παρὰ τὰ στοιχεῖα (xx. 35). The second operates through 'surfeit or deficiency of nutriment'. But neither Alcmaeon nor Philistion has the dichotomy of external and internal cause which is characteristic of, and used systematically in, *π. παθῶν* / *π. νούσων* I. There are three classes of cause according to Philistion–Menon, while two different principles of classification are used by Alcmaeon (since ὑφ' οὗ, ἐξ οὗ, and ἐν οἷς cannot be regarded as subdivisions of 'internal causes'). On the other hand, it must be admitted that in *π. νούσων* I. 23 (VI, p. 188 L.) there is something like the ὑφ' οὗ / ἐξ οὗ of Alcmaeon: θερμαίνεται δὲ ἡ χολὴ καὶ τὸ φλέγμα (= ὑφ' οὗ) ἐνδοθεν μὲν ἀπὸ σιτίων καὶ ποτῶν (= ἐξ οὗ) . . . ἔξωθεν δὲ ἀπὸ (wounds, fatigue, excessive heat and cold). Contrast *π. παθῶν*, where σιτία and ποτά are definitely external causes. Here, as in other matters, *π. νούσων* I shows a certain eclecticism.

³ θ omits the words in brackets. Connate heat is not mentioned elsewhere in the Cnidian works.

of sophistication to be formulated in terms of categories of causes.¹ The substance of the theory is given a logical form. Moreover, such a distinction of internal and external causes makes sense only upon the assumption that bile and phlegm are permanent ingredients in the body.

The effect of heat, cold, etc., is to set in motion, arouse (*κινέειν*) the bile and phlegm (as one 'arouses' a sleeping dog, not one which has just been let in by the door). This notion of *κίνησις* recurs throughout the Cnidian works, with the regularity and the precision of a technical term. Compare the following passages: *π. νούσων* I. 27 (VI, p. 194 L.) *κεκινημένου καὶ θερμαινομένου τοῦ φλέγματος καὶ τῆς χολῆς*; *π. παθῶν* 11 (VI, p. 218 L.) *ἡ δὲ νοῦσος αὕτη γίνεται ὑπὸ χολῆς, ὅταν κινήθῃσιν ἐντὸς τοῦ σώματος καταστηρίξῃ*; *ibid.* 12 (p. 220) *ἡ δὲ μετὰστασις αὐτῶν* (fevers which occur in winter) *τοιαύτη γίνεται· ὅταν, τῶν δύο κεκινημένων τοῦ φλέγματος τε καὶ τῆς χολῆς, μὴ τὰ ξυμφέροντα προσφέρηται τῷ σώματι, συστρεφόμενα αὐτὰ πρὸς ἑωυτὰ τό τε φλέγμα καὶ ἡ χολή προσπίπτει τοῦ σώματος ἢ ἂν τύχῃ κτλ.* (Here *μὴ τὰ ξυμφέροντα* have been specified above as wine or fatigue: once again the distinction between external and internal cause.) *Ibid.* 15 (p. 224) (*φλέγμα*) *ὅταν κινήθῃν προσπέσῃ πρὸς τὴν καρδίην*. Cf. *ibid.* 30 (p. 242) (*κινήθῃσιν*) and 32 (p. 244) (*χολή κινήθῃσιν*). *π. τῶν ἐντὸς παθῶν* 30 (VII, p. 244 L.) *γίνεται δὲ ἡ τοιαύτη νοῦσος διὰ θερμασίην τοῦ ἡλίου χολῆς κινήθῃσιν*; *ibid.* 39 (p. 260) *ἐπιλαμβάνει δὲ θέρεος ἐν ὥρῃ, ὁκόταν ὁ κύων τὸ ἄστρον ἐπιτέλλῃ, χολῆς κινήθῃσιν ἀνὰ τὸ σῶμα*. *π. νούσων* II. 5 (VII, p. 12 L.) *ἀψυχέει δὲ ὅταν προσίστηται πρὸς τὴν καρδίην φλέγμα ἢ χολή· προσίστασθαι δὲ ἀνάγκη, κεκινημένων καὶ ὑγρασμένων (!)*; *ibid.* 6 (p. 14)

¹ Hornstein, however (op. cit., p. 68), attempts to distinguish *π. παθῶν* from *π. νούσων* I on the ground that the former does not explicitly mention the distinction of causes in its first chapter. But it is clearly implied in the wording of that passage, just as it is actually used in the passage I have mentioned. Cf. also 7 (VI, p. 214 L.) where the author, discussing pleuritis, remarks *γίνεται δὲ ἡ νοῦσος αὕτη μάλιστα μὲν ἐκ ποσίων*. . . Here the external cause is given without the internal cause, as it occasionally is in these works. The internal cause, however, is implied by what the author has said earlier in the same passage. The parallel passage on pleuritis in *π. νούσων* I. 26 (VI, p. 192 L.), which I have already quoted, distinguishes more clearly between external and internal cause (the latter being bile and phlegm). This precision appears most clearly, of all these works, in *π. τῶν ἐντὸς παθῶν*: e.g. 28 (VII, p. 240 L.) *γίνεται δὲ* (sc. hepatitis) *ἀπὸ κρηφαγίης βοείων κρεῶν καὶ ἐξ οἰνοφλυγίης· ταῦτα γὰρ πάντα πολεμώτατα ταύτην τὴν ὥρην τῷ ἥπατι, καὶ χολὴν μάλιστα προσίστησι πρὸς τὸ ἥπαρ*; 48 (p. 286): *αὕτη ἡ νοῦσος προσπίπτει μάλιστα ἐν ἀλλοδημίᾳ καὶ ἣν κου ἐρήμην ὁδὸν βαδίζει καὶ ὁ φόβος αὐτὸν λάβῃ*. . . where previously (p. 284) the author has said *γίνεται μὲν ἀπὸ χολῆς*; 47 (p. 282) *τοῦτο τὸ νοῦσημα γίνεται διὰ θερμασίην τοῦ ἡλίου καὶ ὑδροποσίην* where pre-

viously the author has given a long account of the disease in terms of its internal cause, in the passage (p. 280) beginning *ὁκόταν φλέγμα καὶ χολή μυχθῇ κατὰ τὸ σῶμα*. Clearest of all is the passage on *ισχιάς* in 51 (p. 292), which begins *ἀπὸ τῶνδε τῶν ἀφορμῶν γίνεται*, the causes being sunbathing and the consequent drying (*ἀναξηρανθῇ*; cf. *π. νούσων* I. 2 and *π. παθῶν* 1) of the fluid in the joints. So much for the external cause. Then, shortly after, the author says (p. 294) *γίνεται δὲ τὸ νοῦσημα ἀπὸ χολῆς· γίνεται δὲ καὶ ἀπὸ φλέγματος καὶ ἀπὸ αἵματος κτλ.*

It must be admitted that occasionally the two categories of cause seem to be confused: *π. νούσων* I. 20 (VI, p. 176 L.): *ἐν δὲ τῷ πλευρῷ γίνεται μὲν φύματα καὶ ἀπὸ φλέγματος καὶ ἀπὸ χολῆς . . . γίνεται δὲ καὶ ἀπὸ πόνων κτλ.* Cf. *π. τῶν ἐντὸς παθῶν* 17 (VII, p. 206 L.): *τὸ μὲν νοῦσημα γίνεται ἀπὸ χολῆς καὶ φλέγματος . . . γίνεται δὲ καὶ ἀπὸ λαγνείης ἢ νοῦσος*. But such passages are a minority. A similar distinction of causes is pointed to by the remark in *Ep.* II. 4. 5 (V, 126 L.): *ἀλλ' ἐπὶ τὴν πρόφασιν δεῖ εἰσελθεῖν καὶ τῆς προφάσεως τὴν ἀρχήν*. I suspect that it was from this distinction that the later *αἰτία προκαταρκτική* and *συνεκτική* developed: on these, see M. Wellmann, *Die pneumatische Schule* (Berlin, 1895), pp. 153 ff., and the definitions from Dioscorides quoted there.

μέλαινα χολή ἐν τῇ κεφαλῇ κινηθεῖσα; *ibid.* 9 (p. 16): ἐν τῇ κεφαλῇ φλέγμα κινηθέν. In the last two passages it might appear that the author of *π. νούσων* II. 1–11 regards the head as the seat of phlegm. That this is not the case is shown by 3 (p. 10): ἐμέει δὲ χολὴν ἄτε κεκινημένης αὐτῆς ἐν τῷ σώματι, καὶ ἡ κεφαλὴ ὑπὸ τῆς θερμασίης ἔλκει ἐφ' ἐωυτήν, καὶ τὸ μὲν παχύτατον ἐμέει, τὸ δὲ λεπτότατον ἔλκει ἐς ἐωυτήν. With the last words, and indeed with the whole passage, compare *π. νούσων* I. 15 (VI, p. 168 L.): the head, being hollow and placed above, when it is heated by the lung, draws τὸ λεπτότατον τοῦ φλέγματος towards it. In the passage from *π. νούσων* II, the head has been heated, not by the upper cavity as in *π. νούσων* I, but by the bile and phlegm which are *already present* in the head. This is not inconsistent, since it is the doctrine of these works that bile and phlegm are present in all parts of the body. This duplicate process, if one may call it such, in which the initial action of a humour has as its consequences the attraction of the same humour in still greater quantities, is characteristic of *π. νούσων* I. Compare the process of empyema in the lung, *π. νούσων* I. 15 (VI, pp. 164–6 L.) and 13 (p. 160); and of pleuritis 26 (p. 192) and peripneumonia 27 (p. 194). In the last passage, the words are ἐλκύσῃ ὁ πλεύμων ὑπὸ θερμασίης ἐφ' ἐωυτὸν ἀπὸ τῶν πλησίον χωρίων πρὸς τοῖσιν ὑπάρχουσιν ἐν ἐωυτῷ. There seems to be a contradiction here with the account of peripneumonia in *π. παθῶν* 9 (VI, p. 216 L.) in which phlegm flows not from the contiguous parts, but from the head. That the two accounts are not necessarily inconsistent is indicated by the process described in the passage above, *π. νούσων* II. 3 (VII, p. 10 L.); and also in 11 (p. 18): τὸ δὲ φλέγμα ἀπὸ τῆς κεφαλῆς καταβαίνει· ἡ δὲ κεφαλὴ ἐκ τοῦ σώματος ἔλκει· ἔλκει δὲ ὅταν διαθερμανθῇ· διαθερμαίνεται δὲ ὑπὸ σιτίων καὶ ἡλίου καὶ πόνων καὶ πυρός· ὅταν διαθερμανθῇ, ἔλκει τὸ λεπτότατον ἐς ἐωυτήν ἐκ τοῦ σώματος· ὅταν δὲ εἰρύσῃ, καταβαίνει καὶ πάλιν ἐς τὸ σῶμα.¹

According to *π. νούσων* I and *π. παθῶν*, the internal causes of disease are bile and phlegm; *π. παθῶν* emphatically adds in a later chapter (37, VI, p. 246 L.) that the cause must be either one, or the other, or both. The emphasis of *π. παθῶν*, however, raises a difficulty in respect of *π. τῶν ἐντὸς παθῶν*, where on several occasions *blood* is mentioned as causing this or that disease: 4 (VII, p. 178 L., with the reading of θ); 7 (p. 182); 12 (p. 192); 29 (p. 242) (this is, however, mechanical, since phlegm and blood together cause a rupture of the gall bladder); 32 (p. 248); 51 (p. 294). The relation between blood and bile or phlegm in the Cnidian works is usually that of patient to agent: blood is heated, or chilled, or corrupted, by the action of the humours upon it (e.g. *π. νούσων* I. 24 (VI, p. 188 L.) ῥίγος; *π. παθῶν* 19 (VI, p. 228 L.) dilution of the blood through phlegm; *π. νούσων* II. 6 (VII, p. 14 L.) *chilling* of the blood by bile in apoplexy). The idea also occurs in *π. τῶν ἐντὸς παθῶν* itself: in 6 (VII, p. 180 L.) we are told that inflammation of the lung occurs through phlegm, ὅταν μίγνῃ τῷ αἵματι ἐπιρρύνη ἐπὶ τὸν πλεύμονα, and in 41 (p. 266) that a form of typhus occurs ὁκόταν ἡ χολὴ σαπείσῃ μίγῃ τῷ αἵματι ἀνὰ τὰς φλέβας καὶ τὰ ἄρθρα. That a corruption of blood is the consequence of such mingling is indicated by similar passages in the other works: *π. παθῶν* 23 (VI, p. 234 L.) ἡ δὲ

¹ Cf. also *π. νούσων* I. 19 (VI, p. 174 L.): ἀπὸ τῆς κεφαλῆς τε καὶ τοῦ ἄλλου σώματος φλέγμα καταρρέον. If we should look for *verbatim* fragments of the common stock of these works, we might do worse than find one in this passage from *π. νούσων* II, which

leaps to the eye from its surroundings. It is all the more significant that it is detailed and full (contrast the inferior aetiological remarks of *π. παθῶν*); and it observes clearly the distinction between external and internal cause.

νοῦσος γίνεται, ἐπειδὴν χολή καὶ φλέγμα καταστηρίξει ἐς τὰς φλέβας καὶ τὴν κοιλίην. νοσέει μὲν τὸ αἷμα ; π. νούσων I. 20 (VI, p. 178 L.) καὶ ὁκόταν μυχθῇ τό τε αἷμα καὶ τὸ ὑγρὸν τὸ ἀπὸ τῆς σαρκός, παχύνεται τὸ αἷμα and it becomes νοσώδεστερον and στασιμώτερον. The process is in fact identical with the one to which the term ὑπεραιμέειν was wrongly applied: π. νούσων II. 4 (VII, p. 10 L.) ὑπεραιμέειν δοκέει ὅταν ἐς τὰς φλέβας χολή ἢ φλέγμα ἐσέλθῃ. The process is also mentioned in π. νούσων II. 12 ff., deficient as that is in aetiological passages: 41 (p. 58) ἡ νοῦσος αὕτη λαμβάνει, ἣν ὑπερχολήσῃ τὸ αἷμα. Here the form of the word is interesting in the light of the earlier passage in π. νούσων II.

It is doubtful whether the use of blood as a factor producing disease in π. τῶν ἐντὸς παθῶν is anomalous with its use in the remaining Cnidian works. The first case, 4 (VII, p. 178 L.) is dubious. Blood is there mentioned only according to Mack's collation of θ; Littré did not accept the reading. Even if it were correct, blood is used here not independently, but in combination with black bile; this need mean no more than the normal process by which the humour acts on blood. In 7 (p. 182) oedema of the lung is due to an attraction and retention of blood by the lung. Presumably, although the author is not explicit, the blood suppurates. Such independent suppuration of blood is a contingency which occurs in other Cnidian works: cf. π. νούσων I. 4 (VI, p. 146 L.) καὶ ἣν αἷμα ἐκ τρώματος ἢ φλεβὸς ῥυῇ ἐς τὴν ἄνω κοιλίην, ἀνάγκη τοῦτο πῶς γενέσθαι: the process is described in 14 (p. 162) and in 17 (p. 170). In π. τῶν ἐντὸς παθῶν 12 (VII, p. 192 L.) blood again acts in concert with bile; while 32 (p. 248) and 29 (p. 242) are simple cases of rupture, of spleen and gall-bladder respectively, caused by a superabundance of blood. π. τῶν ἐντὸς παθῶν is to a large extent concerned with internal organs, and it is not surprising to find such ruptures mentioned here, and not in other works. In 51 (p. 294) ἰσχιάς is caused by στήριξις of blood in the joints. στήριξις of blood as well as of bile and phlegm is normal in the Cnidian works; it is used to explain this same disease by π. παθῶν 29 (VI, p. 240 L.). There, ἰσχιάς is caused by a στήριξις of blood, and the στήριξις is further caused by bile and phlegm. The words in π. τῶν ἐντὸς παθῶν are γίνεται δὲ τὸ νοῦσημα ἀπὸ χολῆς· γίνεται δὲ καὶ ἀπὸ φλέγματος καὶ ἀπὸ αἵματος. There is no reason to infer from them that the author conceives of blood as acting independently of the humour here, any more than it does in the parallel account in π. παθῶν. Finally, one may compare a passage in π. παθῶν, the work which is so insistent that diseases are caused by bile or phlegm or both: 34 (VI, p. 244 L.) φύματα ὅσα φύεται, πάντα ὑπὸ φλέγματος ἢ αἵματος φύεται.¹ I conclude that on this point the aetiological system of π. τῶν ἐντὸς παθῶν is no different from that of the other works.

Such was the Cnidian system. Its most distinctive feature is the doctrine that bile and phlegm are connate and permanent ingredients of the body, 'inborn in us', in the words of the author of π. νούσων I. This is in turn closely related to, and implied by, the distinction between internal and external

¹ Moreover, in π. νούσων I. 18 (VI, p. 172 L.) blood is in fact the cause of erysipelas in the lung: καὶ ὁκόταν ὑπερξηρανθῇ, ἔλκει τὸ αἷμα ἐφ' ἐωυτόν. Hornstein (op. cit., p. 73) argued that the doctrine of π. τῶν ἐντὸς παθῶν was distinct from that of π. παθῶν/π. νούσων I, since in the former blood is regarded, analogously to the other

humours, as a humour causative of disease, while in the two latter it is regarded as normally preserving health, though liable to corruption by bile and phlegm. In view of the passages cited above, I do not think that this distinction between the treatises can be maintained.

cause. If I am right in arguing that this theory is common to the authors of *π. νούσων* I, II, *π. παθῶν*, *π. τῶν ἐντὸς παθῶν*, and possibly *π. νούσων* III, then it follows, I think, that it was also the theory of the *Κνίδιαι γνῶμαι*, the common source of these works. All the more interesting, then, that it is not the theory ascribed to Euryphon of Cnidus by the author of the Menon Papyrus.¹

University of Sydney

I. M. LONIE

¹ iv. 31 ff. Diels. When the same author contrasts 'Aristotle's' report of Hippocrates' doctrine with that of 'Hippocrates' himself, it is precisely upon the decisive difference between the humours as *περισσώματα*, and as innate ingredients of the body, that he lays his emphasis (vi. 42 ff.): [καὶ ὡς μὲν] ὁ Ἀριστοτέλης οἶεται/περὶ 'Ἱπποκράτους ταῦτα * * ὡς δὲ/αὐτὸς 'Ἱπποκράτης λέγει, γί(νεσθαι) τὰς νόσους/[π(αρά)] τὰς διαφορὰς τ(ῶν) ἐν τῇ συστάσει φύσεων. (The theory of *περισσώματα* and *φύσαι* has preceded.) In what follows, the Anonymus is relying upon *π. νούσων* I. 2, and it is interesting to see, even without the supplements suggested by

Fredrich (*De libro περὶ φύσιος ἀνθρώπου pseudhippocrateo*, pp. 28–31) that precisely the two points of internal and external cause, and the congenital nature of the humours, are emphasized by the abstracter (vii. 5): ταῦτα (bile and phlegm) ἐπὶ δὴ γινομένοις; ibid. 11: τάδε γ(ὰρ) ἐκτὸς . . . πόνων ὑπερμέτρ[ων]. In these passages the author is of course following out his own doxographic principle (iv. 26–28: οἱ μὲν . . . παρὰ τὰ *περισσώματα* . . . οἱ δὲ παρὰ τὰ *στοιχεῖα*). On the other hand, it was surely the ease with which *π. νούσων* I. 2 fits into this doxographic scheme that led the author to select it as characteristic of 'Hippocrates'.