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## The Problematic Mention of Hippocrates in Plato's *Phaedrus*<sup>1</sup>

HANS HERTER

Σ. Ψυχῆς οὐδὲ φύσιν ἀξίως λόγου κατανοῆσαι οἷε δυνατόν εἶναι ἄνευ τῆς τοῦ ὄλου φύσεως; Φ. Εἰ μὲν Ἴπποκράτει γε τῶ τῶν Ἀσκληπιαδῶν δεῖ τι πιθέσθαι, οὐδὲ περὶ σώματος ἄνευ τῆς μεθόδου ταύτης (*Phaedr.*, 270 C). "Do you believe that it is possible to know, in a measure worth mentioning, the nature of the soul without (knowing) the nature of the whole? . . . If one must trust Hippocrates the Asclepiadean, such understanding even of the body is not possible without this method."

This often discussed passage (perhaps too often) raises the question of its relation to the extant Corpus of the Hippocratics. For more than a century no progress has been made on this question, if we give credence to the complaints of R. Joly, who in a recent publication proposed a "modeste tentative" in order to reconcile the factions.<sup>2</sup> It seemed obvious that a

<sup>1</sup> This paper was read first in Freiburg im Breisgau and in Graz and then, in an enlarged form, at Princeton and in Urbana. I am greatly indebted to Professors Homer A. Thompson and Luitpold Wallach for having improved the English version of the paper, and I am deeply obliged to my American friends, especially at the Institute at Princeton and the National Endowment for the Humanities, for the generous hospitality which my wife and I enjoyed during three months in 1973. I also recall with gratitude the delightful weeks we spent at the University of Illinois in Urbana.

<sup>2</sup> R. Joly, *Rev. ét. anc.* 58, 1956, 204 ff. (Joly<sup>1</sup>) and (more cautiously) *Rev. ét. gr.* 74, 1961, 69 ff. (Joly<sup>2</sup>), compare *Recherches sur le traité pseudo-hippocratique du régime*, Paris, 1960, 183 f. For his solution compare note 54 below. Lit. see Joly<sup>2</sup>, 69 ff., continuing A. Diès, *Autour de Platon* 1, Paris, 1927, 24 ff. (compare 425, 3). H. Cherniss, *Lustrum* 4, 1959, 139 ff. A. Hellwig, *Untersuchungen zur Theorie der Rhetorik bei Platon und Aristoteles* (Hypomnemata 38), Gött., 1973, 181 ff. Moreover, A. Nelson, *Die Hippokratische Schrift περὶ φύσιν*, Diss. Upps., 1909, 91 ff. E. Hoffmann, Annex to E. Zeller's *Philosophie der Griechen* 2, 1<sup>5</sup>, 1922, 1072 ff. A.-J. Festugière, *Hippocrate, L'ancienne Médecine*, Par., 1948, 62 ff., 74. Compare now M. Isnardi Parente, in E. Zeller-R. Mondolfo, *La filosofia greca*, 2.3.1, Florence, 1974, 494 ff.

witness as early as Plato testifies to an authentic idea of the genuine Hippocrates. Already the famous *philologus inter medicos*, Émile Littré, has used the testimony of Plato in order to ascribe the interesting essay on Ancient medicine to the celebrated chief of the Coan school himself.<sup>3</sup> Later on individual scholars continued to make their own choice of single treatises or groups of treatises in the *Corpus Hippocraticum*, convinced that these treatises and no others were closely connected with the method described by Plato and therefore authentic.<sup>4</sup> In the present century scholars at first became more cautious and ceased identifying Plato's statement with a fixed original.<sup>5</sup> Subsequently, however, the treatises

<sup>3</sup> Edition 1, 295 ff. (2, p. XV f.; XXXIV ff.; 214; 4, p. 656 ff., 1; 7, p. XI). Against Littré F. Z. Ermerins, *Allgemeine Literatur-Zeitung*, Halle, 1839, 3, 220 ff. *Hippocratis reliquiae* 2, Utr., 1862, p. XXVIII ff. Appreciation of Littré's work Diès, *loc. cit.*, who shows how in the course of time Littré withdrew from Plato's testimony. Th. Gomperz, *Phil.* 70, 1911, 213 ff. = *Hellenika* 2, Leipz., 1912, 324 ff. (*Anz. Akad. Wien*, Philos.-hist. Kl., 47, 1910, 22 f.), tried again, on the strength of new arguments, to identify the method of the Platonic Hippocrates with the reasoning of the author of Π. ἀ. ἰ. in ch. 20, on which already Littré had relied, only to find many opponents, especially W. Capelle, *Herm.* 57, 1922, 247 ff. (compare F. Tocco, *Atene e Roma* 14, 1911, 70 ff.; H. Gossen, *PW* 8, 1814; more favorably F. E. Kind, *Burs. Jahresber.* 158, 1912, 141 ff.). Finally, F. Steckerl, *Class. Phil.* 40, 1945, 166 ff., renewed the view of Littré, starting from Meno's report. P. KucharSKI too, *Rev. ét. gr.* 52, 1939, 301 ff., allowed for Π. ἀ. ἰ. (compare note 32 below); likewise C. Fredrich, *Hippokratische Untersuchungen*, Berl., 1899, 6; A. Palm, *Studien zur Hippokratischen Schrift* *περὶ διαίτης*, Tüb., 1933, 106; W. Jaeger, *Paideia* 2, Berl., 1944, 34; R. Hackforth, *Plato's Phaedrus translated with Introduction and Commentary*, Cambr., 1952, 21972, 151; J. S. Morrison, *Class. Quart.*, N. S. 8, 1958, 216; G. Cambiano, *Riv. Filos.* 57, 1966, 284 ff. (compare note 32 below); also H. Nohl, *Sokrates und die Ethik*, Tüb., 1904 (Diss. Berl., 1904), 45 ff., who accepts Π. ἀ. ἰ. as genuine (on p. 39) with Ed. Meyer, *Gesch. d. Alt.* 4, 207; 210 f. (4, 1<sup>5</sup>, 846, 1; 851 f.). See H. Herter, *Sudh. Arch.* 47, 1963, 276, 3 (*Kleine Schriften*, Münch., 1975, 199, 87). Hellwig 182, 14a (sub a and b).

<sup>4</sup> Π. ἀ. ὁ. τ. was proposed by Ermerins (1839) and Chr. Petersen, *Hippocratis nomine quae circumferuntur scripta ad temporum rationes disposita* 1, Hamb., 1839 (with *Epid.* I; III and *Aph.*, sect. 3); Π. φύσ. ἀνθρ. was suggested by F. S. Meixner, *Neue Prüfung der Echtheit und Reihenfolge sämtlicher Schriften Hippokrates des Grossen* 1, 1 and 2, Münch., 1836–1837; W. H. Thompson, *The Phaedrus of Plato with English Notes and Dissertations*, Lond., 1868. F. Poschenrieder, *Die platonischen Dialoge in ihrem Verhältnisse zu den hippokratischen Schriften*, Progr. Metten, 1882; Π. ἐβδ. instead was preferred by J. Ilberg, *Griechische Studien H. Lipsius dargebracht*, Leipz., 1894, 26 ff., and with emphasis by W. H. Roscher, *Über Alter, Ursprung und Bedeutung der hippokratischen Schrift von der Siebenzahl*, Leipz., 1911, 116 f.; *Die hippokratische Schrift von der Siebenzahl*, Paderb., 1913, 99 ff.; 117.

<sup>5</sup> Fredrich, 1 ff. (H. Schöne, *GGA*, 1900, 654); H. Diels, *DLZ* 1899, 13; *Herm.* 45, 1910, 126; *SB Berl.* 1910, 1140 ff.; J. Ilberg, *Neue Jahrb.* 13, 1904, 406 f.; U. v. Wilamowitz, *SB Berl.* 1901, 15; 23; *Platon* 1<sup>2</sup>, Berl., 1920, 462; F. E. Kind, *Burs. Jahresber.* 158, 1912, 141 ff.; 180, 1919, 5 ff.; H. Gossen, *PW* 8, 1810; Nelson, *l. c.*; J. Geffcken, *Griechische Literaturgeschichte* 1, Heid., 1926, 268; 2, 1934, 119; Jaeger 2, 34; J. L. Heiberg, *Einleitung in die Altertumswissenschaft* 2<sup>2</sup>, 1912, 424; *Geschichte der Mathematik und Naturwissenschaften*,

Π. ἀέρων υδάτων τόπων and Π. ἰρῆς νούσου (and several others), the so-called meteorological group of the Corpus, as well as Plato again presumably furnished proof of the real views of Hippocrates.<sup>6</sup> But the problem is not finished: even at the present time, which works of the great Coan<sup>7</sup> are genuine is a point at issue.

In the meantime the problem as to the passage of the *Phaedrus* has become more complicated. L. Edelstein<sup>8</sup> eliminated it by changing the interpretation of the expression τὸ ὅλον, as had been done previously by some scholars and long ago by Hermias. Hitherto most readers had taken "the whole" in the sense of "universe." Thus they understood the passage to mean "it is not possible to know the nature of the soul or of the body without knowing the nature of the universe."<sup>9</sup> Edelstein, however, was of

Münch., 1960, 94; W. H. S. Jones, *Proceed. Brit. Acad.* 1945, 104 f.; 118 f.; *Hippocrates with an English Translation* 1, Lond., 1957, XXXIII ff.; compare *Philosophy and Medicine in Ancient Greece*, Baltimore, 1946, 16 ff.; already Ermerins, in his edition, *loc. cit.* (compare note 62 below). M. Wellmann, *Burs. Jahresber.*, Suppl. 124, 1905, 147, denied any publications of Hippocrates (for some time also Wilamowitz), but he changed his mind in *Herm.* 64, 1929, 16 ff.

<sup>6</sup> K. Deichgräber, *Die Epidemien und das Corpus Hippocraticum*, Berl., 1933, 149 ff.; compare Wellmann, *Herm.*, *loc. cit.*, and Palm, 102; M. Pohlenz, *Hippokrates*, Berl., 1938, 74 ff.; F. Robert (see Cherniss, 140). Nestle, compare note 10 below; Hellwig 182, 14a (sub d). Formerly I myself had the meteorological aspect in view (*Ciba-Zeitschrift* 8, nr. 85, 1957, 2819 ff.).

<sup>7</sup> Finally, L. Bourgey, *Observation et expérience chez les médecins de la Collection hippocratique*, Par., 1953, 88 ff. (compare 196, 1), restored a fair harmony of the Platonic passage with the Π. ἀ. ἰ. and the meteorological group, even with all the rational treatises of the *Corpus*. Similarly M. Vegetti, *Riv. Crit. Stor. Filos.* 21, 1966, 37 ff.

<sup>8</sup> Περὶ ἀέρων und die Sammlung der hippokratischen Schriften, Berl., 1931, 118 ff.; 129 ff. (*PW*, Suppl. 6, 1318 ff.; *Amer. J. Phil.* 61, 1940, 226 f. = *Ancient Medicine*, Balt., 1967, 116 ff.). Against (Gomperz and) Edelstein argues A. Rehm (-K. Vogel), *Einleitung in die Altertumswissenschaft* 2, 5<sup>4</sup>, Leipz.-Berl., 1933, 26; further compare Palm, 104, 22; Jaeger, 2, 365, 54. Hellwig, 186 ff., discusses Edelstein's view within the frame of the entire dialogue (compare Pohlenz, *Hippokrates* 114, n. 1 to p. 75).

<sup>9</sup> Galenus, *CMG* 5, 9, 1 p. 55, 16; compare 53, 26. Littré, 1, 298 ff. Hier. Müller, *Translation*, Leipz., 1854; K. Lehrs, *Translation*, Leipz., 1869; B. Jowett, *Translation*, 1871; Ilberg, *l.c.* and *Neue Jahrb.* 13, 1904, 406; Gomperz and Diels, *l.c.*; Roscher, *l.c.*; Gossen, *loc. cit.*; C. Ritter, *Translation*, Leipz., 1914, 139 f., 131; and *Inhaltsdarstellung, Jahresber. Tab.*, 1913-1914, 13 (*Platon* 2, 40); H. v. Arnim, *Platos Jugenddialoge*, Leipz.-Berl., 1914, 218 f.; M. Pohlenz, *Herm.* 53, 1918, 404 ff. (*Kleine Schriften* 2, Hild., 1965, 157 ff.); *Der hellenische Mensch*, Gött., 1947, 175 f.; *Hippokrates*, 74 ff.; Wilamowitz, *Platon* 1<sup>2</sup>, 462; Hoffmann, 1082 ff.; Capelle, 251 f.; 256; *passim*; F. Überweg and K. Prächter, *Die Philosophie des Altertums*<sup>12</sup>, Berl., 1926, 282; J. Stenzel, *Platon der Erzieher*, Leipz., 1928, 248; Wellmann, *Herm.* 64, 1929, 21; J. Mewaldt, *DLZ* 1932, 258; L. Robin, *Platon Oeuvres complètes* 4, 3, Par., 1933, XLVII, CXLVIII f.; Deichgräber, 149 ff.; H. Wanner, *Studien zu Περὶ ἀρχαίας ἰητρικῆς*, Diss. Zür., 1939, 75 ff.; Kucharski, *loc. cit.*; Jaeger, *Paideia* 2, 33 f.; 365, 54; 3, 1947, 266; A. M. Frenkian, *La méthode hippocratique dans le*

the opinion that τὸ ὅλον is nothing but the whole of the soul or the whole of the body. Now Plato's meaning was that it is not possible to know the nature of the soul without the whole of the soul, or the nature of the body without the whole of the body.<sup>10</sup> Consequently, we are faced with a dilemma, and the meaning of Plato's words for the Hippocratic question changes according to our choice. Therefore, the sense of the passage is not a Hippocratic problem but falls under the jurisdiction of the Platonists. We must explain the statement of Plato within the context of the dialogue, irrespective of the Hippocratics.

When we follow further discussion of Socrates and Phaedrus, we get at first sight the impression that Plato nowhere considers the universe. Thus Edelstein's interpretation seems acceptable. The true orator who wishes to influence the soul of the hearer cannot dispense with the knowledge of the whole of that soul, and the true physician must know the nature of the

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*Phèdre de Platon*, Bucarest, 1941. Diller, *Gnom.* 18, 1942, 84, 1 (*Kleine Schriften zur antiken Medizin*, Berl., 1973, 205, 68); *Herm.* 80, 1952, 406 f. (67 f.); *Jahrb. Akad. Wiss. Lit. Mainz* 1959, 275 f. (93 f.); Festugière, 62 ff.; O. Regenbogen, *Miscellanea academica Berolinensia* 2, 1, 1950, 212 f.; Bourgey, 90; 91, 1; Joly<sup>1</sup>, 205 ff.; J<sup>2</sup>, 79 ff.; Herter, *Ciba-Ztschr.*, loc. cit., 2819. *Sudh. Arch.* 42, 1958, 85; Morrison, *Class. Quart.* 52, 1958, 216; P. Friedländer, *Platon*<sup>2</sup> 3, Berl., 1960, 218 f. (with n. 29 on p. 469); D. Mannsperger, *Physis bei Platon*, Berl., 1969, 62; 98; 260; Cl. Gaudin, *Rev. ét. anc.* 72, 1970, 340 ff.; Hellwig, 182 ff. "Weltganzen" Geffcken 2, 119 (but according to Democritus). Several authors confine the ὅλον to the environment, see note 53 below.

<sup>10</sup> Hermias, in *Phaedr.*, p. 245; 5 ff. Couvreur; H. N. Fowler, *Translation*, Lond.-New York, 1913; Edelstein, loc. cit.; Abel Rey, *Thalès* 2, 1935, 48 f.; *La science dans l'antiquité* 3 (*La maturité de la pensée scientifique en Grèce*), Par., 1939, 435 ff.; W. Kranz, *Phil.* 96, 1944, 193 ff. (*Studien zur antiken Literatur und ihrem Fortwirken*, Heid., 1967, 315 ff.); *Empedokles*, Zür., 1949, 351, 10; *Kosmos* 1, Bonn, 1955, 41 f., 23; W. J. Verdenius, *Mnem.*, Ser. 4, vol. 8, 1955, 286; G. Cambiano, *Riv. Filos.* 57, 1966, 284 ff. (compare note 32 below); G. J. de Vries, *A Commentary on the Phaedrus of Plato*, Amst., 1969, 234 f.; compare Hellwig, 183, 16a. G. M. A. Grube, *Plato's Thought*, Lond., 1935, 213 f., thinks of the individual souls and bodies; Hackforth, 149 ff., of the human soul and body generally. Steckerl, 167, paraphrases: "the whole somatic sphere"; still this sphere reaches to the heaven. The same holds good for the "Gesamtnatur" (Gomperz) or for the *physis* "in general" (Morrison). Less clearly Fredrich, 3 f.; 8 (compare Pohlenz, *Herm.*, loc. cit., 405, 1; 406 f. = *Kl. Schr.* 2, 158, 1; 158 f.). W. Nestle, *Herm.* 73, 1938, 17 ff. (*Griechische Studien*, Stuttg., 1948, 538 ff.); *Vom Mythos zum Logos*<sup>2</sup>, Stuttg., 1942, 232 f., believes that the ὅλον in itself denotes the special whole, and only indirectly ("mittelbar") has the meaning of exceeding the σῶμα. Likewise Nohl, 45 ff.; Palm, 102 ff.; Friedländer, 469, 29; P. Mesnard, *Rev. thomiste* 54, 1954, 145 f.; H. Kesters, *Tijdschr. voor filosofie* 26, 1964, 53, 31; P. Plass, *Symb. Osl.* 43, 1968, 16, 10; M. Vegetti, *Riv. crit. stor. filos.* 24, 1969, 17 ff. Kl. Oehler has expressed a similar opinion in the discussion of my paper at Princeton. Restriction of the sense "étude de toute la nature" to the sense "étude de toute nature," according to Diès, 429. J.-H. Kühn, *System- und Methodenprobleme im Corpus Hippocraticum*, Wiesb., 1956, 84 ff., interprets τὸ ὅλον in both directions.

whole of the body. When we remember that previously there had been discussion of the "great" *technai* generally, the analogy continues, and we would say with Edelstein that the technician must attain a "general conception of the object he treats" ("eine Allgemeinvorstellung von dem behandelten Gegenstand"), but not at once of the universe. The common usage of the word τὸ ὅλον is not against this view, because the term can signify not only the *cosmos* but also a special whole, if that relationship emerges from the context.<sup>11</sup>

But we do not get off so easily. Not by chance have most readers in modern times—and likewise the ancients—understood the whole to mean "the universe." K. Deichgräber was right in censuring the tautology<sup>12</sup> which results from Edelstein's conception: it is impossible to know the nature of the soul without knowing the nature of the whole soul! The nature of the soul is identical, or nearly identical, with the nature of the whole soul! Furthermore, τὸ ὅλον, as Edelstein takes it, does not occur again in the following discussion.

On the other hand, when we go backward in the context, we find a point of contact for τὸ ὅλον as equal to "universe," although here also the matter is not without difficulties.<sup>13</sup> Socrates (269 E–270) explicitly declares that all the "great" *technai*, insofar as they would rise above the level of a mere routine (τριβή), need something he calls ἀδολεσχία καὶ μετεωρολογία φύσεως περὶ (idle talk and "meteorology" about nature).<sup>14</sup> This is im-

<sup>11</sup> Edelstein, 131, 1; Hackforth, 150, 2; C. M. J. Sicking, *Mnem.* 16, 1963, 225 ff.; Joly<sup>2</sup>, 83, 2; Hellwig, 187 f., 26; 202, 67. Deichgräber, 151, shows that here τὸ ὅλον, if unaffected, can mean only the universe; Edelstein's interpretation would require such an exact expression as: ἡ τοῦ ὅλου τῆς ψυχῆς φύσις or sim. (Rehm, *loc. cit.*; Joly<sup>2</sup> 83, 1). For ὅλος see H. J. Kraemer, *Arete bei Platon und Aristoteles*, Heid., 1959, 138 (especially in Aristoteles) and K. S. Wallach, *Glotta* 45, 1967, 23 ff. Cambiano, 287 ff., asserts (erroneously) that Plato does not use τὸ ὅλον as universe but in quotations (*Lys.* 214 B, and *Gorg.* 508 A); thus he eliminates the naturalistic interpretation in our passage. *Charm.* 156 BC has been compared since Littré and Thompson (Edelstein, II. *ἀέρων* 131, 1; Frenkian, 18; 36; I. Düring, *Aristoteles*, Heid., 1966, 416 f., 103); but this passage is at most an adequate parallel for Edelstein's view (Festugière, 64 f.; Hackforth 150, 2). Compare note 35 below. <sup>12</sup> Kühn, 88, 1; 92; Hellwig, 191, 32.

<sup>13</sup> Pohlenz, *Hipp.* 74 ff.; Joly<sup>1</sup>, 205 f.; Joly<sup>2</sup>, 79 ff.; Hellwig, 188 ff. Nevertheless, Joly<sup>2</sup>, 82 f., suspects in 270 B "un léger détour de la pensée."

<sup>14</sup> Gomperz deleted καὶ μετεωρολογία, but the combination is confirmed by Plut., *Pericl.* 5 (τῆς λεγομένης μετεωρολογίας καὶ μεταρσιολοχίας), compare Diels, *SB Berl.* 1910, 1141, 1. Formerly the words φύσεως περὶ were believed spurious (Pohlenz, *Hipp.* 78), and Diels would read ἀδολεσχίας φύσεως περὶ καὶ μετεωρολογίας (compare Capelle, 251, 2; 252, 1; Joly<sup>2</sup>, 81 f.); Kranz, 193 (315), also was of the opinion that the addition φύσεως περὶ was incompatible with μετεωρολογία, if understood in the proper sense (compare note 17 below). But φύσεως περὶ is tolerable because it belongs to both of the substantives (compare Capelle, 251, 2).

portant concerning rhetoric and medicine. The two expressions are derogatory, the one quite unequivocally, the other provisionally. These expressions correspond to the limited horizon of the people and are used by Socrates with an ironical smile. He is hinting at the narrow grasp of the many, in order to stress the needs of the arts which he advocates himself; for what the people despise is in fact correct.<sup>15</sup> In Plato's *Politicus* the inventive technician is called *μετεωρολόγος ἀδολέσχης τις σοφιστής*, clearly, likewise from the vulgar viewpoint, and in the *Cratylus*, 401 B, also the creators of language are denoted as *μετεωρολόγοι καὶ ἀδολέσχαι* but not *φᾶυλοι*.<sup>16</sup> We do not want to speak of the *ἀδολέσχαι*, but the *μετεωρολόγοι* are important for our argument. They go beyond the earth to the sublunar phenomena and do not confine themselves to the whole of the human soul or body.<sup>17</sup>

Further on we hear that Pericles advanced greatly in the art of oratory when he began frequenting the school of Anaxagoras and perceived the nature of *νοῦς*. He was acquiring not oratory, but something additional from outside, and that was just the *μετεωρολογία φύσεως πέρι*.<sup>18</sup> The *νοῦς* which Anaxagoras brought into philosophy was not the human,<sup>19</sup> but the

<sup>15</sup> Edelstein, 132 ff.; Festugière, 63; Kühn, 86; Mannsperger, 255 ff. Compare Ritter, *Translation*, 139; 129. See now G. J. de Vries, *Mededel. Ned. Akad.*, Afd. Letterk., N.R. 38, 1 (1975) 15 f.

<sup>16</sup> Otherwise babblers are despised by Plato (compare also *Erast.* 132 B). See Hellwig, 117; 196 f.; also H.-G. Ingenkamp, *Plutarchs Schriften über die Heilung der Seele*, Gött., 1971, 126. In our passage *ἀδολέσχαι* is dismissed, but *μετεωρολογία* is retained in its positive sense.

<sup>17</sup> Edelstein's view is endangered by *μετεωρολογία* (Capelle, 251 f.; less so, Deichgräber, 149,2). Therefore, he understood it (p. 134) in a metaphorical sense: "in die Höhe steigende Untersuchung" (similarly, I suppose, Steckerl, 169,2); so also Wilamowitz, *Griechisches Lesebuch* 2, 2<sup>4</sup>, Berl., 1923, 230: "verstiegene Erhabenheit" (Hackforth, 150, "high-flown speculation" or "tall-talk"; Kranz, 193 f. [315 f.]: "erhabene Redeweise"). Already F. Schliermacher had translated: "etwas von jenem spitzfindigen und hochfliegenden Geschwätz." Against these attempts Joly<sup>1</sup>, 205 f.; Joly<sup>2</sup>, 81 f. The word retains the connection with the real *μετέωρα*; see generally Capelle, *Phil.* 71, 1912, 414 ff. (*PW*, Suppl. 6, 315 ff.); Kucharski, 310,1; H. Erbse, *Herm.*, 82, 1954, 405 ff.; H.-J. Newiger, *Metapher und Allegorie*, Münch., 1957, 55 ff.; 63 ff.; Herter, *Sudh. Arch.* 47, 1963, 271 (*Kl. Schr.*, 195); Cl. Gaudin, *Rev. ét. anc.* 72, 1970, 332 ff. C. W. Müller, *Die Kurzdialoge der Appendix Platonica*, Münch., 1975, 62 f. Compare note 21 below.

<sup>18</sup> Anaxag. A 15 D.-Kr. and Lanza. The remark is not critical (so Bourgey, 94 f., 4), nor ironical (so Steckerl and others), nor "half playful" (so A. E. Taylor, *Plato*, Lond., 1926, 314,2; likewise Jaeger, 2, 33, and others). Mannsperger, 255 ff., finds in it polemic irony against the insufficiency of Anaxagoras and Pericles. "Selbstironie," de Vries, 233 (compare Friedländer, 469,30). See Kucharski, 319 f.; Hellwig, especially 195 f.

<sup>19</sup> Hackforth, 150 f., and Kranz, 195 (316 f.), hypothetically. Kühn, 86 f., credits Anaxagoras with *diaeresis*; compare Edelstein, *PW*, loc. cit., 1320. Compare also G. E. J. Mooren, *Plutarchus' leven van Pericles*, Diss. Nijm., 1948, 113; E. Meinhardt, *Perikles bei Plutarch*, Diss. Frankf., 1957, 26 ff.; 77 f.; 86 f.

cosmic intellect.<sup>20</sup> Plato often includes cosmology in meteorology.<sup>21</sup> With this we are in the sphere of the "universe," which he mentions a little later in the passage we are discussing.

It must be conceded that the cosmological element does not extend throughout the entire discussion of the dialogue; it emerges incidentally here and there.<sup>22</sup> Therefore, we might renew our doubts concerning the significance of τὸ ὅλον and thus find ourselves again at our starting point. We would get then into the circle of extracting the true Hippocrates from the Platonic passage and then explaining this same passage by the *Corpus Hippocraticum*.<sup>23</sup> Ought we to end by accepting Edelstein's interpretation, as some scholars have done, for instance G. J. de Vries in his recent commentary on the *Phaedrus*?<sup>24</sup> The problem cannot be solved definitively unless help is available from the outside; we need, so to speak, an Archimedian point to move the question.

In fact, there is a passage in another dialogue of Plato, namely, in the *Timaeus*, not in the great cosmological exposition of the Pythagorean Timaeus, but in the report on Atlantis and primeval Athens made by Critias, who himself is relying on Solon's report which purports to have been brought from Egypt. The passage has been overlooked by the interpreters of the *Phaedrus* because it is outside of their purview. I have often read the passage myself without thinking of the parallel in the *Phaedrus*, and I have read the *Phaedrus* without thinking of the *Timaeus* passage. Add to this the fact that the passage in question is not dealing with Hippocrates but with the old Egyptians. It is the priest of Sais who speaks and explains to his listener Solon that 8,000 years ago Athena had founded in Egypt an establishment corresponding to the establishment which she had inspired the old Athenians to set up a thousand years earlier, that is, 9,000 years ago. In proof of this statement Plato enumerates three relics from early times, namely: (1) the constitution of the three estates (professions), (2) the arming with shield and spear, and (3), we read on p. 24 BC, τὸ δ' αὖ περὶ τῆς φρονήσεως, ὁρᾶς που τὸν νόμον τῆδε (sc. in Egypt) ὅσην ἐπιμέλειαν ἐποίησατο (sc. ὁ νόμος) εὐθύς κατ' ἀρχαῖς περὶ τε τὸν κόσμον, ἅπαντα μέχρι μαντικῆς καὶ ἰατρικῆς πρὸς ὑγίειαν ἐκ τούτων θείων ὄντων εἰς

<sup>20</sup> Hellwig, 196 ff. If we read νοῦ τε καὶ ἀνοίας, then Plato had added the opposite in a schematic manner, as he often does; but if νοῦ τε καὶ διανοίας is right, then he is hinting at the intellectual function of the cosmic *Nús*. Kranz, 195 (316) argued that the great arts cannot altogether treat the nature of the universe; but, as we shall see, Platonic science always extends to the boundaries of the world, if not to the ideas.

<sup>21</sup> Pohlenz, *Hipp.* 114, n. 2 to p. 74. Compare note 17 above.

<sup>22</sup> Pohlenz, 75 f.; compare Joly<sup>2</sup>, 83 f.; I should like to say more about these references in due time.

<sup>23</sup> Kucharski, 306.

<sup>24</sup> De Vries, 234 ff. Compare note 10 above.

τὰ ἀνθρώπινα ἀνευρών, ὅσα τε ἄλλα τούτοις ἔπεται μαθήματα πάντα κτησάμενος.

We have here a characteristic sample of Plato's old-age style, which I cannot analyze in brief. The very personification of the law (*νόμος*) belongs to this style. I paraphrase as follows: the goddess (Athena naturally) has somehow given rise to a law (*νόμος*) in the intellectual sphere, and from the first (without any preliminary steps), this law has taken care of the universe (*κόσμος*) in such a manner that the law found out all things including the art of the seers (*μαντικῆς*) and medicine, which serves for the purpose of health, starting from all that which is divine (*ἐκ τούτων θείων ὄντων*) to the use of human circumstances; so the law acquired all the relevant knowledge. With the phrase *ἐκ τούτων θείων ὄντων* the speaker goes back to the cosmos. The universe is divine not only on the whole, but also in the multiplicity of its ingredients, that is, it is animated and governed by gods. Proceeding from this universe the law has invented the sciences for things human, *μαντικὴν καὶ ἰατρικὴν*, and moreover other related sciences.<sup>25</sup> These sciences have to do with man and his concerns, but they get their principles from the contemplation of the cosmos into which human life is inserted. Here we have the medicine we were searching for, the medicine which treats mankind not without knowledge of *τῆς τοῦ ὄλου φύσεως* and which even starts from the nature of the *ὄλον*. To be sure, the correspondence is not perfect, insofar as in the *Phaedrus* Socrates is speaking of Hippocrates, while Critias in the *Timaeus* is reporting the same things about Egypt, dating back 8,000 years ago, or rather 9,000 years, since these sciences, as he says, had existed in Old Athens. But for Hippocrates and Egypt there is a common denominator, namely Plato. We have to interpret Plato on the basis of his own views, putting aside Hippocrates and Egypt. After all, we are dealing with a Platonic not with a Hippocratic or Egyptological question.

At first we must pay attention to the fact that medicine is put together with *μαντική*. When we recall the disregard often found in the *Corpus Hippocraticum* for the art of the seers,<sup>26</sup> we may suspect that the juxtaposition is not favorable to medicine. But in Plato's view *μαντική* is no doubt an imperfect form of knowledge;<sup>27</sup> yet it is to some extent appre-

<sup>25</sup> The great sciences of the *Phaedrus*? The doctrine of the ideas is unknown to the Egyptians. Compare Herter, *Palingenesia* 4, 1969, 116 ff. (*Kl. Schr.*, 286 ff.).

<sup>26</sup> Π. διαίτ. ὀξ. 8. But since Aeschyl., *Prom.* 484 ff., the *μαντική* is often side by side with medicine.

<sup>27</sup> P. Friedländer, *GGA* 1931, 250 f. (*Studien zur antiken Literatur und Kunst*, Berl., 1969, 90 f.); Platon<sup>2</sup> 2, 70; P. Louis, *Les métaphores de Platon*, Thèse Par. (Rennes), 1945, 139 ff.; R. J. Collin, *Class. Quart.* 46, 1952, 93 ff.; W. J. Verdenius, *Arch. Gesch. Philos.* 44, 1962, 132 f.; 136; K. Gaiser, *Platons ungeschriebene Lehre*, Stuttg., 1963, 245; 401, 214; compare

ciated, provided that the really inspired *χρησμοφοδοί* and *μάντεις* are separated from others.<sup>28</sup> This art regulates the intercourse between gods and men,<sup>29</sup> and therefore the seers are represented in both ideal states of Plato.<sup>30</sup> Thus in the *Phaedrus* medicine also is treated seriously, although with the reservation that it is in keeping with true reason, *ἀληθῆς λόγος*.<sup>31</sup> Without irony Socrates (270 B) introduces or rather reintroduces medicine and points out that medicine has the same manner (*τρόπος*) as rhetoric. Thus we are allowed to transfer to the body what Plato further on says of the soul.

In what way do the methods of medicine and of rhetoric resemble one another? Plato tells us in his next sentence: the diaeresis is common to the two disciplines,<sup>32</sup> namely, the method of dividing a primary concept into

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*Rhein. Mus.* 110, 1967, 327 ff.; C. Zintzen, *Kl. Pauly*, s. v. *Mantik*, 971; C. W. Müller, *l.c.*, 55 f.; 123 f.; 216 f.

<sup>28</sup> *Ion* 534 D; *Meno* 99 C; *Politeia* 364 B; *Nom.* 908 D; Aristot., *N.E.* 4, 13, 1127 b 19 ff. (See A. Rivaud, in his edition of *Tim.* and *Critias*, Paris, 1925, 198, 2.) Compare *Phaedr.* 242 C; 248 DE; *Tim.* 71 D ff. (compare O. Apelt, *Translation*, Leipzig., 1922, 182 nn. 257-259 to this passage). A. W. Argyle, *Class. Rev.* 20, 1970, 139.

<sup>29</sup> *Symp.* 188 CD.

<sup>30</sup> *Politic.* 290 C; *Nom.* 772 D; 871 D; 914 A.

<sup>31</sup> True reason is not linked with Hippocrates (so Vegetti 14, and others), but controlling instance is (Hoffmann, 1074; compare 1083; Edelstein, 121,1; Hellwig, 183,16; 184 f.; 204). The irony of Socrates is not directed against Hippocrates (so Rivaud, 114 f.), but against Phaedrus' belief in the absolute authority of Hippocrates, although he is chief representative of the medicine (Pohlenz, *Hipp.* 77). Compare Joly<sup>2</sup>, 89. The expression *εἰ συμφωνεῖ* is misunderstood by Pohlenz, 114, n. 2 to p. 76 (for *συμφωνεῖν*, "logisch vereinbar sein," see H.-P. Stahl, *Herm.* 88, 1960, 427 ff.).

<sup>32</sup> See 273 DE; 276 E-277 A; 277 B. Thus it is useless to pile up, as Bourgey 88 ff. does, (compare Joly<sup>2</sup>, 90) similarities between medicine and rhetoric, or to stress (as Kucharski did) the rationality of the two disciplines. A. Virieux-Reymond ("Current Problems in History of Medicine," *Proceed. 19th Internat. Congr. Hist. Med.*, Basel, 1964, Basel-New York, 1966, 195 ff.) emphasizes with Kucharski the "relations causales" of the Hippocratic-Platonic method, and consequently he loses sight of the *Phaedrus* (compare also Vegetti, 16 f.). Deichgräber, 151; Jaeger, 2, 33 ff.; Kranz, 196 (317); Gaudin, 342 f., also Edelstein (*PW, loc. cit.*, 1318 ff.; *Am. J. Phil.*, *loc. cit.*) allow for the *diaeresis*, especially Hellwig, 217 ff. The influence of Hippocrates on the Platonic *diaeresis* is stressed by Bourgey, 91; 95 f. Gaudin (340 ff.) makes Plato turn away from Anaxagoras to Hippocrates. Kucharski, 350 ff. (*Les chemins du savoir*, Paris, 1949, 129 ff.; 227 ff.; 346 ff.; *Rev. ét. gr.* 74, 1961, 388 ff. = *Aspects de la spéculation platonicienne*, Par.-Louv., 1971, 177 ff.; *Rev. philosophique* 1964, 427 ff. = *Spéculation*, 259 ff.) emphatically declares that the *diaeresis* is common to medicine and rhetoric. Yet he tries to establish not only the old method of ascending from the sensual phenomena to their ideas, but also two new methods, the dichotomic *diaeresis* and *synagoge*, and the Hippocratic reduction of larger concepts to narrower ones. In the *Phaedrus* he finds these two methods side by side; but it is hard to understand his statements (Vegetti, 21, distinguishes three "prospettive teoretiche"); finally, he sacrificed the cardinal point, the relation of the *diaeresis* to the universe. Similarly, for the sake of the *diaeresis* Cambiano, 284 ff., abandoned the universalistic

two or more subordinate concepts, and these again into others, and so on. Plato claims a diaeretical method for rhetoric of the kind already possessed by medicine. There are concepts (εἶδη) which can be divided and subdivided and others which are not so complex but which are simple and which can no longer be divided. Thus diaeresis ought to clarify whether the soul is πολυειδές or ἀπλοῦν, and similarly with respect to the body, and generally with respect to the object of inquiry in every science.<sup>33</sup> If the object is simple, one can at once enquire in its δύναμις (potency), in both the active and passive sense, that is, the effect it exerts upon other objects and the effect of other things upon it. If, on the contrary, the object is not simple, one must first of all determine its εἶδη (species) and explore these one by one in order to know how each one acts and reacts. It was acknowledged long ago that Plato has in mind a doctrine of the different constitutions of the soul. Therefore, in the field of medicine the methodological likeness is to be found in the well-known constitutions of the body,<sup>34</sup> but—strange to say—this idea has been overlooked in the research dealing with Hippocrates.

The misunderstanding of the term πολυειδές is very dangerous; here εἶδη are not μέρη.<sup>35</sup> The πολυειδές is not to be divided into its organs or humors, for in that case the soul ought to be divided into the reasonable part (λογιστικόν), the passionate part (θυμοειδές), and the greedy part (ἐπιθυμητικόν). In the diaeresis every concept is a whole, not part of a whole. When soul and body are divided, there do not result parts which

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interpretation of τὸ ὅλον (compare note 11 above). Frenkian too pays attention to the *diaeresis* and treats the nosology of the first part of Π. διαίτ. ὄξ. "sous toute réserve"; thus he was able to state properly an opposition between the *diaeresis* and the universal medicine. In fact, there is a difficulty here to be solved, as Deichgräber had pointed out. Thompson, 124, was not far from the truth while stating: "the general law of the One in Many, which holds alike in Nature and in Thought." I hope to be able to contribute a little to the elucidation of this question.

<sup>33</sup> That is the φύσις of the object (271 A 7 f.). Gomperz, *Anz. Ak. Wien*, Phil.-hist. Kl., 47, 1910, 22, wrote ὑπὸ του in 270 D 5 and 7. For 271 A, compare Hellwig, 217, 104.

<sup>34</sup> Compare Hoffmann, 1082 ff.; he believes that the method aims at the health. Kranz, 199 f. (319), also considers the doctrine of the constitutions, but not for the rhetoric. The types of life (248 D) did occur to Pohlenz, *GGA* 1916, 280, 1, but only to be abandoned. Compare *Ciba-Ztschr.* 8, n. 85, 1957, 2829.

<sup>35</sup> Since Littré many scholars were inclined to incur into this confusion, especially v. Arnim, 219 ff.; P. Frutiger, *Les mythes de Platon*, Paris, 1930, 91, 1; 2, and others. Kranz, 198 (318) f., relying upon *Charm.* 156 BC, was looking for the Hippocratic conception of the totality of the body without showing how this view was to be applied to the soul. Compare note 11 above. The reciprocation of the parts may cause differences of physical or psychological types, as v. Arnim and Steckerl suppose; compare also Kühn, 87 ff., and Hellwig, 204 ff.

have no vital power of their own, but different species of body or soul which yield different kinds of men.

Thus we comprehend Plato's programmatic question in this way: do soul and body have many εἶδη (species), or is either of them a simple εἶδος, everywhere homogeneous (save nonsignificant variants in the world of our senses)? Only in this way does the program correspond with the discussion that follows, and only so entirely and precisely. Further on, Plato assumes types of souls and claims for each type a specific sort of speech fit to impress a particular sort of hearer and no other. Plato states explicitly that soul is πολυειδές; as to body, it goes without saying that it is πολυειδές (271 A). Plato is demanding a doctrine of the constitutions for the soul analogous to the medical doctrine of the constitutions which had existed long before and which therefore did not need special explanation.

Nor do we miss such an explanation, but as to the soul, we might want to learn what are the species Plato has in view; in the *Phaedrus* he is only speaking generally and programmatically. We find traces of such an approach in other works. For instance, in the *Politeia*, 435 E-436 A, Plato characterizes three kinds and temperaments (εἶδη τε καὶ ἥθη) represented by individual persons as well as by entire peoples. In specific cases the parts of the soul play a certain role in accordance with their predominance in behavior: the northerners (Thracians, Scythians, etc.) are distinguished by the preponderance of the passionate (*thymoeides*), the Phoenicians and Egyptians by the greediness of gain (*φιλοχρήματων* = *epithymeticon*), and the Greeks by the desire for learning (*φιλομαθές* = *logisticon*). Or take the *Politicus*; here Plato teaches a doctrine of the temperament amounting to a blend of the diverse types which produces εὐοργησία (good talents). Read the description of the character of the guardians in the *Politeia* or the portraits of the citizens of the decaying constitutions, and you shall see Plato's tendency toward typology.<sup>36</sup> Within our dialogue itself we find the list of human tempers and directions of life (248 DE); here the typical moment becomes especially manifest in the formations ending in -ικός, in the beginning by a slow transition, lover of philosophy or beauty or the musical and erotic (in the Platonic sense), φιλοσόφου ἢ φιλοκάλου ἢ μουσικοῦ τινος καὶ ἔρωτικοῦ. It also is worth observing, how in 252 C ff. the different types of soul react differently toward the idea of Eros, and in 259 CD the individual μουσικοί behave differently toward the different Muses. In view of the multiplicity of types of character it must have been difficult to fix types of speech suited to them. In what way Plato solved the problem, and whether he solved it at all, we do not know.

As to the medical theory of constitutions, Plato makes no hints in the

<sup>36</sup> Further samples in Hellwig, 209 f. Compare Steckerl, 170.

*Phaedrus*, since he could assume that it was known. In the *Timaeus* he has nothing pertinent, because there he was content with the general conditions of the human body, which fundamentally are everywhere the same in spite of all the differences. But in the *Phaedrus* 268 A ff., he gives us to understand that he knows εἶδη of body; here someone is boasting that he is able to carry out the usual practice of medicine and also to teach others, but he is questioned by the true technicians (τεχνικοί), whether he knows when, to what degree, and for which people he must proceed in each case. Plato uses the somewhat indeterminate expression πρὸς οὐστίνας, which is appropriate for single patients to be attended to in a special manner; but it also is suitable to types of patients who are subject to uniform attendance.<sup>37</sup> Unfortunately, Plato does not engage in details. He dispenses with examples and does not determine exactly the point where a type is passing over into individual cases, a difficulty inherent in the method of diaeresis on the whole.

In all probability the dislike of the ἄπειρον, the infinity of possibilities, and variabilities has induced Plato in the quoted passage of the *Timaeus* to remove medicine as far as possible from the θεῖα, just as in the case of the μαυτική, which was likewise driven to enter into the endless multiplicity of actual cases. Nevertheless, there was behind the two disciplines "the whole," and within the frame of this ὅλον not only medicine but also rhetoric has to move. This ὅλον reaches far over the human sphere into the cosmos. For in Plato's view it is not only men who have body and soul, but also the cosmos and its powers. The universe of our phenomenal world is (contrary to the world of ideas) material, but governed psychically. This fact does not exceed all that which is expressly treated in the course of the dialogue; it fits into the frame of the diaeresis insofar as both body and soul have certain εἶδη which extend beyond mankind to the gods.<sup>38</sup> The human psyche is an inferior issue *en miniature* of the psychic substance, by which the higher beings are formed, and the human soul is proportionate to its body as the godlike astral soul to its material *substratum*. Thus rhetoric and medicine and generally all the "great" arts presuppose a context embracing the whole Cosmos with all things within. These arts inquire what acts upon what thing and in what manner, not only in the limits of mankind, but also among the εἶδη of soul and body of the powers outside up to the highest. As to rhetoric, the crucial point is which *eidos*

<sup>37</sup> Herter, *Sudh. Arch.* 47, 1963, 272 f. (*Kl. Schr.*, 196 f.).

<sup>38</sup> Hellwig, 212 ff.; compare v. Arnim, 176 ff.; 218 f.; Hoffmann, 1081; Pohlenz, *Der hellenische Mensch*, 175 f.; *Hipp.*, 75; Joly<sup>2</sup>, 83 ff.; O. Wichmann, *Platon*, Darmst., 1966, 229 f. Edelstein, *PW, loc. cit.*, 1320 f., is at pains to keep the divine element away from the passage in the *Phaedrus*.

of speech works upon which *eidos* of soul. In this respect, after all, Plato could not stop here, at the mankind; in the central myth about the heavenly journey of the souls he had emphasized the peculiar affinity of the types of human souls each with its proper god. But from this very myth results that the souls of the gods are included in the typology, as is expressly stated in 245 C. Consequently, in 273 E-274 A the technician of speech (τεχνικός λόγων πέρι) is asked how one must address the gods or each god properly: with this motif the prayer is introduced into the true rhetoric.<sup>39</sup>

As the Platonic psychology exceeds the *δλον* of the human psyche, so also Plato's physiology and pathology rest mainly upon the connections of the human body with the universe. Body is composed of the same four elements that exist in the environment. These elements are on principle different in quality, and they work not only within the body one upon another but also inward from the outside (παθήματα, *Tim.* 61 C ff.). It is explicitly said that the different kinds of body not only exert effects, but also endure effects from bodies of other kinds.<sup>40</sup> Thus we see the *δλον* exceeding the human body like the soul and reaching to the boundaries of the universe. There is a beautiful passage in an early dialogue, *Gorgias*, 507 E f.: Plato celebrates the unity of the world's composition from gods to men, from heaven to earth. The same motif is indicated again in the *Meno*, 81 D, where the affinity of nature (συγγένεια τῆς φύσεως) appears,<sup>41</sup> and it continues to occur in Plato's writings up to "the all pervasive bond" (δεσμός) of the *Epinomis*. At the time of the *Gorgias* Plato was speaking in the manner of the Pythagoreans; later on, in the *Nomoi*, 889 B, he follows the view of the materialists, but he keeps his distance by the supposition that in the whole context a godlike principle is at work. The effects within the bodily sphere arise by movements (normal or troubled), especially when like substances are striving after like ones. There are laws prevailing in all the spheres of the universe; therefore, medical men need knowledge of the whole of nature.<sup>42</sup>

<sup>39</sup> Hellwig, *loc. cit.*, believes that the gods cannot be influenced by men. F. Solmsen, who discussed the whole problem with me in Madison, doubts my interpretation of the passage.

<sup>40</sup> Πάθη τε καὶ ἔργα of the soul already at 245 C. For the homogeneous composition of macrocosm and microcosm see Kühn, 90 ff.

<sup>41</sup> Herter, "Religion und Religionen," *Festschr. G. Mensching*, Bonn, 1967, 64 ff. (*Kl. Schr.*, 249 ff.). Compare H.-D. Voigtländer, *Die Lust und das Gute bei Platon*, Würzb., 1960, 157, who quotes the passages in *Gorg.* and *Nomoi*. For *Meno* 81 D see recently H. Klein, *Commentary*, Chapel Hill, 1965, 96; St. S. Tigner, *Phronesis* 15, 1970, 1 ff.; Mannsperger, 61 f.

<sup>42</sup> Pythagorean influence is to be verified by Archytas fr. 1, cited by Capelle, 256 ff.

In Plato's view every movement concentrates on the tendency toward the good, which pervades the whole world, but which can be disturbed by matter. Sometimes Plato's conceptions aim at parallels of macrocosm and microcosm, which A. Olerud, I believe, has somewhat exaggerated.<sup>43</sup> As thinking should imitate the circular movement of the universe, so does blood (*Tim.*, 81 AB); as the universe is always moving, so the soul should keep the body moving with measure, preferably by itself, that is, by gymnastic (88 C ff.). We must take advantage of the circulation, otherwise we become brutish (91 E); but if white phlegm with black bile enters the godlike circulation, it gives rise to the sacred disease (85 AB). Plato's medicine as practical experience (*ἐμπειρία*) remains, of course, within the narrower environment; but when it becomes science (*ἐπιστήμη*), especially in the *Timaeus*, it can be comprehended only within the general framework, since it reveals the general teleology of nature—in spite of the troubles caused by the erring cause (*πλανωμένη αἰτία*). While all things are striving after the good, the sciences engaged herein get the *ὑψηλόνοον* (high-minded) and the *τελειουργικόν* (aiming at the ultimate).<sup>44</sup> Of course, necessity is important in dominating the effects (271 B),<sup>45</sup> but that is not decisive for Plato's trend of thought. It is simpler to say that the physician must include the whole cosmos in his method, since he has to act according to the laws existing in the whole of nature. The structure of the universe is accessible by the diacresis, which has to arrange and determine all things in their relation one with another.

So far, I hope that the commentator of Plato's mode of thinking has fulfilled his duty; but he is taking an interest also in the question of whether Plato has rightly understood Hippocrates and how far he has done so.<sup>46</sup> Of course, we must not suppose that Plato is approaching Hippocrates completely unbiased, because it is known that not only Aristoteles, as H. Cherniss has demonstrated but, in a much higher degree, Plato too is accustomed to adapt what he is citing to his own purposes.<sup>47</sup>

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Compare Kucharski, 323,1; J. S. Morrison, *Class. Quart.* 52, 1958, 216 (compare 199). Medicine belongs to astronomy, which deals with the course of the stars and with the seasons; compare Pohlenz, *Hipp.* 114, n. 1 to p. 75.

<sup>43</sup> A. Olerud, *L'idée de macrocosmos et de microcosmos dans le Timée de Platon*, Upps., 1951. Lit. see E. Schöner, *Das Viererschema in der antiken Humoralpathologie*, Wiesb., 1964, 13 f., 2. For the *Timaeus* see A. St. Pease, *Harv. Theol. Rev.* 34, 1941, 168, 28. Hellwig, 202 f., 67, disregards the motif.

<sup>44</sup> Pohlenz, *Hipp.* 76. Compare Mannsperger, 258; Hellwig, 185 f.

<sup>45</sup> Kucharski compares *Phil.* 28 D.

<sup>46</sup> For the cosmic view Plato rightly referred to Anaxagoras. Compare note 20 above.

<sup>47</sup> Thus, in the view of Kucharski, 309, the passage of the *Phaedrus* is a "transposition," or even a "sublimation," of the methodology of Hippocrates.

Nevertheless, the Hippocratic doctrine does not appear distorted, because the point Plato aims at is really characteristic of the Hippocrateans, namely, the doctrine of the constitutions, on which H. L. Dittmer was able to write an extensive treatise.<sup>48</sup> This doctrine is the kernel and the guiding idea of Hippocratic medicine, as Mewaldt (p. 10) says, and culminates in the fourfold scheme of the phlegmatic, the bilious, the sanguine, and the melancholic (of those who are dominated by phlegm or bile or blood or black bile in such a manner that in practice these four qualities are variously distributed). Of course, different constitutions react differently to the influence of the environment. Therefore, the Hippocratic has to pay attention to the outer world, since it is composed of the same substances as the human body.<sup>49</sup> But now the question arises as to whether Hippocrates concentrates on the *ὄλον* in such a manner as Plato supposes.<sup>50</sup> If the correspondence of macrocosm and microcosm is accentuated, the early treatise on the number seven (Π. *ἑβδομάδων*) becomes a principal witness;<sup>51</sup> but this treatise is far removed from the authentic Hippocrates. The treatise on diet (Π. *διαίτης*) too has a peculiar character. Here the human body is considered as an imitation of the universe (*ἀπομίμησις τοῦ ὄλου*: I. 10; VI, p. 484 L.).<sup>52</sup> On the other hand, we must pay attention to the meteorological medicine which finds the causes of the diseases in the influences of water and air and the whole environment. But as the name indicates, this environment is bounded by the meteora, that is, it is identical with the sublunar region and does not comprehend the *ὄλον*.<sup>53</sup>

<sup>48</sup> *Konstitutionstypen im Corpus Hippocraticum*, Diss. Jena, 1940 (compare J. Mewaldt, *Gnom.* 18, 1942, 8 ff.).

<sup>49</sup> Hence A. E. Taylor, *Plato*, Lond., 1926, 315, refers to the doctrine of the four humors and takes Π. *φύσ. ἀνθρ.* to be the pattern; but the "ingredients" are not decisive, as I have shown.

<sup>50</sup> The outward influences are touched upon in nearly all Hippocratic treatises, though with a different emphasis (Dittmer, 15). Bourgey, 90; 91, 1; 94 presupposes astronomical influence upon the medical writers, but *Epid.* 1, 10, is the only adequate passage he cites. Compare W. Capelle, *Hippokrates, Fünf auserlesene Schriften*, Zür., 1955, 27 ff.

<sup>51</sup> July<sup>1</sup>, 206 f.; July<sup>2</sup>, 86 f.

<sup>52</sup> Capelle, 259 f.; Palm, 117 f.; Kucharski, 324; Wanner, 75, 34; Schöner, 34, 3. *Hipp., reg. morb. ac.* 1 extr. should be excluded (July<sup>2</sup>, 90).

<sup>53</sup> July<sup>1</sup>, 207 ff.; July<sup>2</sup>, 86 ff. It is not allowed to extend the *ὄλον* beyond the realm of the human body, but not farther than to the environment, as has been stated by Ermerins, 220 ff.; Petersen, *loc. cit.*; Ed. Meyer, *Gesch. d. Alt.* 4, 210, 1 (4, 1<sup>5</sup>, 851, 1); Nestle; also Palm, 102 ff. Nestle, 17 f. (539 f.); (see already Diels, *Herm.* 45, 1910, 125 f.; *SB Berl.* 1910, 1141, 1; compare Tocco, 70 ff.) distinguishes between meteorological medicine and natural philosophy (compare July<sup>1</sup>, 208, 2; Bourgey, 91, 1); even so, the method of the *Phaedrus* cannot be dissociated from the latter. For the fluctuation of systematic and empiric methods, compare Kühn, *loc. cit., pass.*; Herter, *Sudh. Arch.* 47, 1963, 262; 276 (*Kl. Schr.*, 188; 199 f.).

Hoffmann (p. 1084) indicates that the elevation into the cosmic sphere is proper to Plato's view. Plato went beyond Hippocrates without special mention, not by mistake, but simply because he was carried away by the momentum of his thinking.<sup>54</sup>

Still, some passages must be pointed out which in this connection are not insignificant. To be sure, the beginning of the treatise *On Climate*<sup>55</sup> is not very helpful; the meteorological medicine makes allowance for the rising and setting of the stars in order to get signs of the seasons. But another passage has a larger significance, namely, the fragment of a lost treatise called in a Pseudo-Galenic dissertation:<sup>56</sup> *ὁκόσοι ἰατρικὴν ἀσκέοντες φυσιογνωμίας ἀμοιρέουσιν, τουτέων ἢ γνώμη ἀνὰ σκότον καλινδουμένη νωθρὰ γηράσκει* ("whoever practising medicine neglect *φυσιογνωμίη*, they grow to a dull old age, their minds rolling in the dark.") Obviously, *φυσιογνωμίη* is to be understood in the general sense of *περὶ φύσεως ἱστορία*. Thus, this passage corresponds with the passage of the treatise *On diet* I. 2 (VI, p. 470 L.), where the diseases are derived from the powerful effects of the whole world.<sup>57</sup> But the most significant passage is a sentence in the treatise *On human nature* (Π. φύσ. ἀνθρ. 7; VI, pp. 48–50 L.):<sup>58</sup> *ὡς γὰρ ὁ ἐνιαυτὸς μετέχει μὲν πᾶς πάντων καὶ τῶν θερμῶν καὶ τῶν ψυχρῶν καὶ τῶν ξηρῶν καὶ τῶν ὑγρῶν—οὐ γὰρ ἂν μείνειε τουτέων οὐδὲν οὐδένα χρόνον ἄνευ πάντων τῶν ἐνεόντων ἐν τῷδε τῷ κόσμῳ, ἀλλ' εἴ ἔν τί γε ἐκλίποι, πάντ' ἂν ἀφανισθείη· ἀπὸ γὰρ τῆς αὐτέης ἀνάγκης πάντα ξυνέστηκέ τε καὶ τρέφεται ὑπ'*

<sup>54</sup> July<sup>1</sup>, 207 ff.; July<sup>2</sup>, 86 ff., believes that Plato has failed in interpreting the meteorological medicine and that he has misunderstood the *ἀστρονομίη* at Π. ἀ. ὑ. τ. 2 by taking the *μετέωρα* to mean the *ὄλον* (universe). Then Plato's acquaintance with Hippocrates would be reduced to a minimum. Frenkian, 38 ff., believes that Plato knew the meteorological medicine of Hippocrates only by hearsay (compare Diller, *Kl. Schr. zur ant. Med.* 122 = *Arch. Begriffsgesch.* 9, 1964, 149 f.); but is it likely that Polybus (p. 15 f.; 28; 37) would be that much mistaken? Compare note 62 below.

<sup>55</sup> Fredrich, 5 f.; 8; 222; Nestle, 22 (545); Palm, 101 f.; Kucharski, 325; July<sup>2</sup>, 87 f. Add *Epid.* 1, 10 (2, 668–670 L.); compare Kucharski, 324 f.; Bourgey, 94; 196, 1; Pohlenz, *Hipp.* 114, n. 1 to p. 75. Ancient physicians prognosticated by the help of the lunar phases (Diocles, compare Pohlenz, 79). Hippocr., *Epist.* 18 (9, 382–384 L.) concerns totality, but Democritus is writing.

<sup>56</sup> Ps.-Galenus, *Περὶ κατακλίσεως νοσούντων προγνωστικά* 19, 530 K.; see H. Schöne, *Deutsche Med. Wochenschr.* 36, 1910, 418 f.; 466 f. Compare H. Diels, *SB Berl.* 1910, 1140 ff.; Tocco, 76 ff.

<sup>57</sup> Tocco, 70 ff.; Schöner, 29 f.

<sup>58</sup> Taylor, *Plato* 315; Kranz, 199 f. (319); Pohlenz, *Hipp.* 114, n. 1 to p. 75; H. Diller, *Kl. Schr. zur ant. Med.* 94 (*Jahrb. Ak. Wiss. Lit. Mainz* 1959, 276), 122 (*Arch. Begriffsgesch.* 9, 1964, 149 f.). July<sup>1</sup>, 207; July<sup>2</sup>, 88 f. Compare notes 4 and 49 above. Kucharski, 336 ff., excluded Π. φύσ. ἀνθρ., formerly already Littré, 1, 296 ff., and Alb. Pettenkofer, *Versuch einer kritisch-historischen Beleuchtung des dem Hippokrates zugeschriebenen Werkes: περὶ φύσεως ἀνθρώπων*, Diss. Münch., 1837, 21 ff. Compare Diès, 31 f.

ἀλλήλων—οὕτω δὲ καὶ εἴ τι ἐκ τοῦ ἀνθρώπου ἐκλίποι τουτέων τῶν ξυγγεγονότων, οὐκ ἂν δύναίτο ζῆν ἄνθρωπος. ("For, as the year as a whole comprises all that which is warm and cold and dry and humid—for of all these things nothing would remain at any time without all of these things which are in this cosmos, but rather if anything vanished, all things would disappear; for by the same necessity altogether they subsist and are nourished one by another—likewise if anything of all that which is come together vanished from man, man could not live.") In this treatise, which is by no means eccentric, the universal connection and necessity, from which the human body cannot be excluded, is pronounced in a programmatic manner which nobody can weaken.<sup>59</sup> This testimony is all the more important since today the treatise is ascribed to Polybus, Hippocrates' son-in-law.<sup>60</sup> Thus we are led into the very milieu of the great physician. And we return to Galen, who in his commentary searched for Plato's source in this very treatise.<sup>61</sup>

We may be pleased that Plato's thought is confirmed at least by this unique passage, and at that by a voice from the circle of Hippocrates himself. To be sure, we do not find any treatise which would carry out the method described by Plato as fully as Π. ἐβδομάδων and Π. διαίτης, where we are far removed from the true Hippocrates. We have to concede that Plato has given greater weight to the cosmic element than Hippocrates has done in confrontation with practice. Therefore, it is scarcely reasonable to assume that Plato would have read a single treatise.<sup>62</sup> His statements about Hippocrates look like an *opinion courante*.<sup>63</sup> His medical friends could have told him, though he kept more to the Italic school than

<sup>59</sup> July<sup>1</sup>, 209 f.; July<sup>2</sup>, 88 f. (compare Hackforth, 151) objects that the author attacks medical monism and does not exceed the frame of the meteorological medicine; but his theory extends farther.

<sup>60</sup> At least chapters 1–8. See H. Grensemann, *Der Arzt Polybos*, Mainz, 1968 (compare J. Jouanna, *Rev. ét. gr.* 82, 1969, 555 ff.).

<sup>61</sup> Galen, *comm. praef.* XV, p. 4 f.; 12 ff., and I, 42, p. 103 ff. K.; Littré, I, 297; Fredrich, 52; Gomperz, *Phil., loc. cit.*, 213; Wanner, 75-33.

<sup>62</sup> Compare Pettenkofer, 23 f.; Littré, I, 299; 305 ff.; Petersen, 18 f.; Ermerins, in his edition; Diels, *DLZ* 1899, 13; Wilamowitz, *SB Berl.* 1901, 23; *Platon*, 1<sup>2</sup>, Berl., 1920, 462, 1; Nelson, *loc. cit.*; Kind, *Burs.* 158, 1912, 144; Rehm, *loc. cit.*; Diller, *Kl. Schr. zur ant. Med.* 137 (= *Gnom.* 9, 1933, 70 f.); 205 (*ibd.* 18, 1942, 83 f.); 93 f. (= *Jahrb. Ak. Wiss. Lit. Mainz* 1959, 275 f.); 122 (= *Arch. Begriffsgesch.* 9, 1964, 149 f.); Wanner, 75-33; Pohlenz; Mesnard, 145; Bourgey, 88 ff.; compare Edelstein, *Ancient Medicine*, 135 ff. Differently Fredrich, 9; Capelle, 261, compare 253; Kucharski, *Chemins*, 139 ff.; 230; Jaeger, 2, 34 f.; July<sup>2</sup>, 87 ff.; Cambiano, 303. At least, Plato does not quote a single treatise; Littré, I, 307 f. (Capelle, 250, 2; Friedländer, 3, 469, 29; Geffcken, I, 240, 8) even stated that he had developed the view of Hippocrates in his own manner; compare note 54 above. Hellwig, 183, 15.

<sup>63</sup> Bourgey, 92.

to the Coans.<sup>64</sup> As matters stand, it is not likely that he had chosen the Hippocratic medicine to be his model for the cosmology.<sup>65</sup> The passage of the *Phaedrus* is not sufficiently detailed.<sup>66</sup> It is certainly not a source to provide more information than the treatises of the *Corpus* itself. What Plato says is more important for himself than for Hippocrates; methodologically it is even correct to eliminate the passage as a source when we are trying to determine the authentic views of Hippocrates.<sup>67</sup>

And what about the Egyptians, who are brought into the discussion by way of the *Timaeus*? Also here it is a secondary problem how far Plato's conception of foreign medicine corresponded to reality. He was in a position to know that in Egypt medicine flourished as much as did *μαντική*, as Herodotus (II, 84) observed; and it was *communis opinio* that from Egypt Greek visitors like Thales could get astronomical knowledge. Plato himself relates (*Phaedr.*, 274 CD) that Thoth invented mathematics and astronomy. Isocrates in the *Busiris* ascribes to the Egyptians not only astronomy together with geometry, but also a high medical art, which prescribes natural remedies. It is probable—in spite of some difficulties—that Isocrates in this essay follows Plato.<sup>68</sup> But this very passage is not as close to Plato as scholars believe. When we look more closely at the Isocratean passage, its Platonic character, as Ries has emphasized, is fading. We learn from Isocrates that the Egyptian priests pursue medicine, but the study of astronomy they leave to their pupils. Now this division of labor is exactly what Isocrates later, in the speech on the exchange of property (II. *ἀντιδόσεως*, 261 ff.),<sup>69</sup> has claimed in strict contrast to Plato. Astronomy and mathematics concern the youth, not the adults, as an exercise in thinking, and he does not make the point of any practical or moral values in these sciences, though he is correcting the utilitarian judgment of Protagoras (Plat. *Prot.*, 318 DE) and of the Xenophontean Socrates (*Mem.*, IV, 7). To be sure, the Egyptian priests engage in what Isocrates calls philosophy, and within the range of this philosophy they

<sup>64</sup> Bourgey, 96 f., 2. Petersen, 19 n. 1, thought of "scholae" of Hippocrates.

<sup>65</sup> Pohlenz, *Hipp.* 76; 114 f., n. 2 to p. 76 (compare Diller, *Kl. Schr. zur ant. Med.* 123 = *Arch. Begriffsgesch.* 9, 1964, 150). Rey, *loc. cit.*; Mesnard 147; Joly<sup>2</sup>, 90 (compare Kucharski, 301, 2). For Kucharski see note 32 above. Correctly Edelstein, 117 ff.

<sup>66</sup> Diels, *DLZ* 1899, 13; Diller, *Kl. Schr. zur ant. Med.*, 205 (*Gnom.* 18, 1942, 84).

<sup>67</sup> Capelle, 261; Palm, 101; Joly<sup>1</sup>, 204.

<sup>68</sup> K. Münscher, *PW*, s. v. *Isokrates*, 2177 ff. (with lit.). M. Pohlenz, *Aus Platos Werkezeit*, Berl., 1913, 215 ff., believes that Plato in the first edition of his *Politeia* referred to Egypt "etwa einleitungsweise"; differently, Klaus Ries, *Isokrates und Platon*, Diss. Münch., 1959, 51 ff. (W. Burkert, *Gnom.* 33, 1961, 349 ff.). For the myth of Busiris (especially the monuments), compare S. El Kalza, 'Ο Βούσιρις, Diss. Athens, 1970.

<sup>69</sup> Compare Morrison, 217.

explore—besides legislation—the nature of the existing things (τῆν φύσιν τῶν ὄντων). This expression is so vague that we cannot say whether “the existing things” exceed the sphere of the practical philosophy of Isocrates; in other passages of this author τὰ ὄντα do not transcend the sphere of the object he is discussing. In Isocrates, in any case, Plato’s decisive idea is lacking, namely, that medicine and astronomy are connected. Whatever the φύσις τῶν ὄντων may be for Isocrates, astronomy is as little included in the philosophy of the priests as is geometry, which according to Plato must be the scientific superstructure of practical astronomy. The Platonic conception of the unity of all sciences is not shared by Isocrates, who bears witness to the attention which the Egyptians are paying to medicine and astronomy, but hardly to anything else. The parallelism between Plato and Isocrates is not sufficiently close to be explained by mutual dependence, but it suggests the supposition that at Athens the Egyptians were credited with a natural and practical medicine. And with regard to the undeniable relations of the Greek, especially the Cnidian, medicine to the Egyptian,<sup>70</sup> we might assume that the current opinion was not unfounded. Perhaps correlations of macrocosm and microcosm were not unknown to Egyptians, because they held that each member of the body was cared for by its god or was even identical with its god.<sup>71</sup> But I do not want to intrude into such an alien field, because again what Plato says of the Egyptians should be judged by the views proper to Plato himself.

In the *Timaeus* Plato attributes his own conception of true medicine—or at best Hippocrates’ conception—to the Egyptians, but we must ask why. In this dialogue as in the *Critias* he describes the high standard of the old Athenians who lived 9,000 years earlier and who overcame the powerful empire of the island Atlantis. But old Athens had been devastated by an immense flood, and Atlantis was entirely inundated. The Egyptians alone were left behind to preserve the knowledge of the earliest events. To be sure, Plato invented the whole history, but he established a rationale for his account by adducing would-be scientific arguments. Above all, the credibility of his account depended upon the reliability of the priest at Sais who ostensibly had told the old story to Solon. For this purpose Plato devised the following account: the goddess Athena, who was the patroness of the old Athenians, later introduced a similar culture into Egypt. Since

<sup>70</sup> R. O. Steuer and J. B. de C. M. Saunders, *Ancient Egyptian and Cnidian Medicine*, Los Angeles, 1959. H. E. Sigerist, *A History of Medicine* 1, Oxf., 1951, 215 ff. P. Ghalioungui, XVII<sup>e</sup> Congr. internat. d’histoire de la médecine, Athènes-Cos, 1960, 269 ff.; *Magic and medical Science in ancient Egypt*, Lond., 1963, 164 ff.; S. Morenz, *Die Begegnung Europas mit Ägypten*, Zür.-Stuttg., 1969, 74; 76 f.; 211, 5 (*SB Leipz.* 113, 5, 1968, 86 f.; 89 f.; 125, 1). M. Kaiser, *ibid.*, 269 (207).

<sup>71</sup> Sigerist 1, 277 f.

the Egyptians were very conservative, they kept to the traditional customs and preserved at least *παραδείγματα* of the primordial establishment. These *παραδείγματα* are adduced as proof of the conditions common to the old Athenians and to the old Egyptians.<sup>72</sup>

Plato does not need any exact conformity between the original state and the modern state of Egypt, because of the old state only relics remained. He appeals at first to the constitutions of the Egyptians. At Athens it was known that the Egyptians were divided into classes,<sup>73</sup> but the accounts of some Greek authors known to us differ from each other. Plato adhered to one of the diverse traditions and was satisfied to see that this tradition somehow tallied with the classes of his ideal state. As witness for the historical establishment Plato is not of great value, but he is not primarily interested in the historical statement. The main point for him is the fact that the three Egyptian classes harmonize with the three classes of his ideal state, while his political program has no bearing on the Egyptians. The time is gone when scholars believed that Plato's ideal state was influenced by Egypt. There were critics already in his lifetime who asserted in a mocking manner that Plato himself had not invented his *politeia* but that he transcribed the constitution of the Egyptians.<sup>74</sup> In all probability, Plato would have refuted these mockers by stating it was not the Egyptians but the old Athenians who came earlier. Secondly, before Plato makes his statement on the Egyptian views of the universe, he observes that Athena introduced the shield and spear, and he adds that the old Athenians (and then the old Egyptians) were the first of the inhabitants of the regions about Asia to use these two weapons. Nobody has paid attention to this note: *altum silentium*. But if one has the duty to write a commentary, one cannot keep silence. Plato seems to contradict an opposite tradition which derived shield and spear from some Asiatics.<sup>75</sup> Thus we might be tempted to look for an historical kernel in Plato's assertion. As long as I argued in such a fashion, I got nowhere. It was only during a walk through the parks of Princeton that I found a solution, as I hope.

It is surprising that Plato mentions shield and spear and not sword or some other weapon. In fact, when we look at the monuments we are astonished to see how spear and shield characterize the equipment of the warriors in old times. The shield, of whatever kind it might be, is so

<sup>72</sup> Herter, *Palingenesia* 4, 1969, 131, 92 (*Kl. Schr.* 301, 92). For the meaning of *παραδείγματα* compare *Politeia* 561 E.

<sup>73</sup> Herter, *loc. cit.*, 125 (295); Kaiser, *loc. cit.*, 244, n. 6 on p. 269 f. (207, 2). The attribution of the Egyptian constitution to Busiris is arbitrary, says Isocrates (11, 30 ff.) himself, but, naturally, there was a tradition on the constitution itself.

<sup>74</sup> Crantor in Proclus in *Tim.* 20 D (1, 76, 2 ff. D.).

<sup>75</sup> Compare Herodotus 1, 171.

conspicuous, together with the spear, that the sword, if any, often does not appear. Even in Homer the ἔγχος is the proper striking weapon. Numerous representations since the Mycenaean times provide evidence,<sup>76</sup> and in Egypt I found the picture of warriors accompanying queen Hatshepsut on her travel toward Punt<sup>77</sup> and the wooden figures of Egyptian infantry from the tomb of the district prince, Mesehti, at Asyût.<sup>78</sup> It may well be that Plato had seen some Egyptian pictures of this kind. After all, it is well known that he overestimated the age of Egyptian monuments. But this is not the point at issue: he ascribes this equipment to the old Athenians, and only in second place to the old Egyptians. Therefore, we must seek at Athens what was decisive to him. He himself reveals the origin of his impression in the *Critias* (110 BC), where he speaks of the armed Athena and quotes the appearance and image of the goddess (τὸ τῆς θεοῦ σχῆμα καὶ ἄγαλμα) in order to prove that women at old Athens performed military service. Here we have a clear example of Plato's method of transferring a fact of his own time to old Athens 9,000 years earlier. When Plato was walking in his native town, he had occasion to look at the images of the divine patroness, and as usual Athena was armed with a shield and spear (the aegis was not suitable for his view). He could be convinced that the scheme of the goddess was original, and he imagined that Athena had given shields and spears to the old Athenians, but he was silent about the sword that Athena did not carry.<sup>79</sup>

Consequently, I am not much concerned about the historical background. Plato alone is again responsible for his statement. Old Athens and Atlantis are Platonic ideas, and impressions from reality that Plato inserted into his account are of secondary importance. Therefore, I conclude that he has intentionally ascribed the theory of the cosmological duty of the great *technai* to the old Athenians as well as to the old Egyptians. But all this is "Platonic," and only incidentally "Egyptian" or "Hippocratic."

*University of Bonn*

<sup>76</sup> Compare H. L. Lorimer, *Homer and the Monuments*, Lond., 1950, 132 ff.; P. A. L. Greenhalgh, *Early Greek Warfare*, Cambr., 1973; E. Kalinka, *Neue Jahrb.* 23, 1920, 40; J. P. Vernant and others, *Problèmes de la guerre en Grèce ancienne*, Paris, La Haye, 1968, esp. pp. 71 f.; 83 pl. 3.

<sup>77</sup> J. Pirenne, *Histoire de la civilisation de l'Égypte ancienne* 2, Neuchâtel, 1962, fig. 41.

<sup>78</sup> Walther Wolf, *Die Welt der Ägypter*, Stuttg., 1954, pl. 43.

<sup>79</sup> It is not clear whether the old Athenians in fighting with the Atlantians could do without any swords.