# PROGNOSTICA GALIENI

THE collection of manuscripts of the ancient medical writers that was made under the guidance of Hermann Diels was a model of scholarly co-operation and remains a basic tool of the investigator of the transmission of ancient science to the Middle Ages and to the Renaissance. However, its failings are well known: there is confusion between works of similar title and subject, a slackness in noting leaf numbers and exact divisions within the manuscript, and a disregard of the anonymous or pseudonymous literature in circulation.<sup>2</sup> Reliance upon catalogues, often without personal inspection by a member of the commission, led to the perpetuation of certain errors to serve as snares for the unwary.

One of the treasures of St. John's College, Oxford, is a medieval scientific manuscript, MS. 17, which is said in Diels' catalogue to contain a Latin text of the Galenic tract, 'On Prognosis, for Epigenes'. H. O. Coxe in his pioneering catalogue of Oxford manuscripts described this as a manuscript of Prognostica Galieni, which is indeed the title of the section beginning at fol. 2 verso, col. 1, line 26.4 Kluge, who excerpted this for Diels without further investigation, confused this translation with that of Niccolò da Reggio, and his ascription and Coxe's dating passed incongruously into the catalogue. C. W. Jones, in a manuscript note in the copy of Coxe's catalogue preserved in St. John's library, dated the majority of this manuscript to the period 1083-1085, with additions of a slightly later date, circa 1101, and suggested that it came from the abbey of Thorney. Thus, even if this work were a translation of Galen's 'On prognosis', it could in no way be connected with the work of the fourteenth-century scholar, Niccolò. There is no evidence for knowledge of this particular Galenic tract in the West until Niccolò's translation, although it may have been translated into Syriac and, although early translations of certain Galenic texts are known by Hunain ibn Ishaq,6, it seems a reasonable hypothesis that this work cannot be what Diels' catalogue claims for it.7

Much of the medical learning of this manuscript was transcribed and published by Charles Singer in a long article on early English medicine, and I repeat most of his version.8

<sup>&</sup>lt;sup>1</sup> H. Diels, 'Die Handschriften der antiken Ärzte', Abh. preuss. Akad. Wiss., 1905, 1906: Erster Nachtrag, ibid., 1907.

<sup>&</sup>lt;sup>3</sup> A. Beccaria, *I codici di medicina del periodo presalernitano*, Rome, 1956, p. 10: R. J. Durling, 'Corrigenda and addenda to Diels' Galenica', *Traditio*, 1967, 23, 461–76. Cf. Diels pp. 100 and 112, where Venice, cod. Marcian 281, f.81v is cited under two different headings.

<sup>&</sup>lt;sup>3</sup> Diels, op. cit., p. 100. <sup>4</sup> H. O. Coxe, Index codicum Mss. in collegiis aulisque Oxoniensibus adservatorum, II, Oxford

<sup>1852,</sup> p. 5.

<sup>6</sup> On Niccolò see R. Sabbadini, 'Le opere di Galeno tradotte da Nicola da Deoprepio di Reggio',

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<sup>7</sup> Catania, 1910, pp. 15-25.; Studi storici e giuridici dedicati ed offerti a Federico Ciccaglione, II. 2, Catania, 1910, pp. 15-25.; L. Thorndike, 'Translations of works of Galen from the Greek by Niccolò da Reggio (c. 1308-1345)', Byzantina Metabyzantina, I, 1946, 213-35.

G. Bergsträsser, 'Hunain ibn Ishaq, über die Syrischen und Arabischen Galen-übersetzungen', Abh. Kunde Morgenlandes, 17.2, 1925, n. 69; cf. also ibid., 19.2, 1935, n.147. The identity of these two translated works is disputable.

A. Beccaria, 'Sulle tracce di un antico canone latino di Ippocrate e di Galeno II', Italia medievale

ed umanistica, iv, 1961, 1-75.

C. J. Singer, 'A review of medical literature of the Dark Ages with a new text of about 1110', Proc. R. Soc. Med., 1917, 10, 107-60. The transcription appears on p. 133.

Fol.2v col. 1, line 26.

Prognostica vera e libro Galieni. mortiferum signum est cum / in corpore humano frons ruit (=rubet, Singer) supercilia declinantur oculus / sinister minuitur. nasi summitas albescit mentum cadit / pulsus autem currit pedes frigescunt venter defugit: iuvenem / vigilantem et senem dormientem si videris: hec sunt mortifera si / gna. Prognostica ad omnem egritudinem, ut intelligas si vi / vere habet homo aut mori: si testiculi ambi absconsi fuerint, signum est mortis. / Ad malum malannum (?). Accipe dolsam radicis da ei bibere in aqua bene / dicta. si ei anus incoluerit, morituri sunt, si non vivere. / Ut scias si possit vivere infirmus fermento manus eius illimas postea / da cani manducare. Si manducaverit, vivet. si non morietur.

A marginal note on line 4 in the same hand as the text says: ad stomachi tumorem: absinthio man pl. ii, ruta man ii, coque (Singer, eoque) in vino et bibe.

It will be noted that there are two sections within these predictions. The first, ending at line 6, is ascribed to Prognostica from a book of Galen, the second is a series of prognostications of a general nature that are to be distinguished from those of Galen. They derived from typical Anglo-Saxon medicine, where many parallels can be found, and where the dog plays an important part. The Galenic Prognostica, Singer suggested, came from the Salernitan poem, the Flos Medicinae, which he dated somewhat earlier than this manuscript and which runs as follows:10

His signis moriens certis cognoscitur aeger: Fronte rubet primo, pedibus frigescit in imo, Inde supercilium deponit sine propinquo Decidit et mentus, laevus lacrimatur ocellus Deficit auditus nasus summo tenus albet Sponte suo plorans mortis pronunciat horam Ante venit pulsus decurrens propero nisu Excubias patitur juvenis, noctuque diuque Signe senex dormit, designat nocte resolvi.

Despite Singer's assertion, the contacts between early Salernitan medicine and England do not appear to have been strong, and it is very difficult to give precision to any institution that can be called a 'School of Salerno'. 11 Grierson has shown relations between mid-eleventh-century Germany and Salerno, and it is possible that the transmission of some medical lore from Salerno could have taken place by the time of the composition of the Oxford MS.<sup>12</sup> Thus Singer's suggestion was not entirely implausible, but further evidence has come to light which casts strong doubt upon it.

With the publication of Beccaria's 'I codici di medicina del periodo presalernitano', it has at last become possible to gauge the extent of the medical knowledge of what have been termed the Dark Ages and to discover something of the transmission of

<sup>Ibid., pp. 115, 153-4. W. Bonser, The Medical Background of Anglo-Saxon England, London, 1963, pp. 288-89.
S. de Renzi, Collectio Salernitana, V. Naples, 1859, p. 491.
S. De Renzi, Storia Documentata della Scuola Medica di Salerno, 2nd ed., Naples, 1853, 141-45, 156-67; C. J. Singer and D. W. Singer, "The origins of the medical school of Salerno', in Essays in the History of Medicine for K. Sudhoff, London, 1924, 121-38: P. O. Kristeller, 'The School of Salerno', Bull. Hist. Med., 1945, 17, 138-94, who showed conclusively, pp. 144-45, that the origins of the school could not be placed before A.D. 950; R. Avallone, 'Alphanus von Salerno, das Licht Europas im 11 Jahrhundert', Das Altertum, 1969 15, 26-34; F. Hirsch and M. Schipa, La Longobardia meridionale, 2nd ed. with a bibliographical addendum by N. Acocella, Rome, 1968.
P. Grierson, 'The Salernitan coinage of Gisulf II (1052-1077) and Robert Guiscard (1077-1085)', Papers of the British School at Rome, 1956, 24, 37-59 (esp. 51 ff.): contra, and to my mind wrongly, P. Ebner, 'Dei Follari di Gisulfo I e della scuola Salernitana', Bollettino del Circolo Numismatico Napoletano, 1962, 97, 3-43, who argues for a date in the reign of Gisulf I, 946-977.</sup> 

ancient science to the medieval world. 13 Under the heading of 'Prognostica Galieni', five manuscripts are recorded. The earliest, dating from the ninth century, is British Museum, Cod. Arundelianus Lat. 166, fol. 71v, which reads as follows in the transcription by H. I. Bell:14

Percipuit Galienus in corpore humano quod signa sunt mortifera in corpus humano; frons rubit, supercilia declinatur, oculus senex (sinister??) terminuatur nasus summus albigat, mentus cadet, pulsus currit, ante pedes frigides cent venter decurrit iuvenem vigilantem et senem insomnum. haec sunt signa morbifera. (mortifea?)

The relationship of this to the Oxford MS. is at once obvious, and, although textual divergencies are clearly discernible, both collections of prognostics come from the same or a similar source. A third manuscript (Cambridge University Library Gg V 35, 426r) of the eleventh century, presents comparable, although not identical readings. 15

(D) icit Galienus. In hu / mano corpore quae signa mortifera apparent; frons rubet, supercilia declinantur. Oculus sinister minuitur, nasi sumitas albicat mentum cadit / pulsus ante currit, pedes frigescunt, venter defluit, iuvenis vigilans, / senex dormiens urina nigra pessima est: urina pura et nebulosa / proximam mortem significat. Urina rubra si habuerit fecem non periclitabitur. Urina / mane alba post prandium rursus candida optima est.

The textual transmission of ancient medical writings is more fluid than that of a literary text, as the meaning of the text is more important than elegance of style or the needs of metre. There are variants of the Hippocratic Oath in circulation in antiquity, and the differences between the Byzantine and Arabic texts of Galen are well known. 16 Thus, rather than provide a detailed recension, I shall refer to the other manuscripts mentioned by Beccaria by their incipits and explicits, which serve to demonstrate their connections with the three manuscripts already discussed. They are as follows:

Copenhagen, Kgl. Bibliotek, Gamle Kgl. Samling cod. 1653, 183v, 11th. century. Beccaria n. 8. Incipit: Precipuit Galienus in corpore humano quod signa sunt mortifera. Explicit: Hec sunt signa mortifera certissima.

Paris, Bibliothèque Nationale, Fonds latin cod. 11219. 170rb. 9-10th. century. Beccaria n. 35.17 Incipit: Percepit Galienus in corpore humano quot signa sunt mortifera. Explicit: haec sunt signa mortifera.

Rouen, Bibliothèque Municipale cod 0.55., 184v. Late 11th century Beccaria n. 44.18 Incipit: Precipuit Galienus in corpore humano quod signa sunt mortifera.

Beccaria, op. cit., 24-77.
I. Heeg, 'Pseudo—Democritische Studien', Abh. preuss. Akad. Wiss., 1913, 4, p. 18 n.1.: Beccaria, op. cit., n. 83.
Beccaria n. 70. This manuscript may have a German origin, and Jaffé suggested that it was

written by an Anglo-Saxon scribe during a visit to Germany or shortly after his return. The transcription is mine.

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16 On the Hippocratic Oath, see Papyrus Oxyrrhyncus 2547 and the editors' comments thereon. For a similar treatment of a Galenic Text cf. Antinoopolis Papyrus 186, 5a, 8a, with Galen XIII 981 (ed. Kühn). On the divergencies between the Arabic and Greek versions see for example, E. Wenkebach, 'Beiträge zur Textgeschichte der Epidemienkommentare Galens', Abh. dt. Akad. Wiss. Berl., 1927, 1928.

17 This MS. was written in West France and later brought to Germany in the eleventh century. The Prognostica Galieni are appended to the Prognostica Democriti.

18 This MS. was probably written at the neighbouring monastery of S. Ouen, and the Prognostica Galieni are preceded, f.184r, by an anonymous set of prognostics.

The so-called Prognostica Galieni can thus be ascribed at the latest to a ninthcentury compiler, who existed before the creation of the 'school of Salerno'. Upon a freely-agreed basis a scribe might erect another piece of traditional medicine, and the example of the Oxford MS. shows an easy possibility of substitution and addition, when different series of prognostics are juxtaposed. The Cambridge MS. may show a later stage when prognostics derived from urinoscopy are added at the end of the common text without any mark of differentiation.

But is it possible to discover the source of this curious group of prognostics? The remotest origin is clearly the Prognosticon of Hippocrates, especially the section describing the 'facies Hippocratica', although the passage on the relaxing of the belly is not to be found there. 19 Galen's commentary upon this Hippocratic tract can scarcely be suggested as a source as the earliest manuscript of the Latin translation is not dated earlier than the thirteenth century<sup>20</sup> and Beccaria has shown that this did not form part of the early Latin canon of Galen's works.21 A knowledge of certain prognostics can be assumed to have been used as a rule of thumb by doctors in the Dark Ages, and the Prognosticon of Hippocrates was early included in the Latin canon of Hippocratic works.<sup>27</sup> It was translated into Latin as far back as the sixth century. and several different translations exist, including in Monte Cassino cod 97, 3v a paraphrase of the passage on the facies Hippocratica.<sup>22</sup> Thus although the Prognosticon of Hippocrates offers a foundation for this text, the connection cannot be pressed too far.

The mass of anonymous medical literature that has survived in medieval manuscripts was neglected by Diels and his associates and it was left to Sudhoff, Heeg and Beccaria to provide the foundation for the diverse and obscure 'trattatelli'. The most famous of these works of prognosis is that which goes under the name of 'Prognostica Democriti' or the 'Capsula Eburnea', whose origin Sudhoff traced to a Byzantine compiler of the fifth century.<sup>23</sup> One branch of the text was soon translated into Latin, and a second, after having found its way into Arabic, was translated into Latin in the twelfth century by Gerardus of Cremona. The frequent occurrence of such prognostic literature and the wide distribution of the 'Prognostica Galieni' to Italy, France, Germany and England reveal their usefulness, and anonymous prognostics are not lacking.<sup>24</sup> Thus the text of the Oxford MS. can be placed within a tradition that stretches back to the fifth or sixth century and connected with other similar literature that passed under the name of a distinguished doctor of antiquity.

Although the fortune of the Prognostica Galieni cannot be traced in the detail

<sup>19</sup> Ed. Littré, II 114 cf. also 138, lines 15 ff.

Diels, op. cit., p. 107. A Latin translation was made by Constantine the African, a famous Salernitan doctor, ob. 1087, and later by Burgundio of Pisa, Kristeller, op. cit. p. 157.
 A. Beccaria, 'Sulle tracce di un antico canone latino di Ippocrate e di Galeno', I, *Italia medievale*

<sup>&</sup>lt;sup>11</sup> A. Beccaria, 'Shile trace di un antico canone latino di lippocrate e di Galeno', 1, Italia mealevale ed umanistica, 1959, 2, 9 ff.

<sup>12</sup> H. Kühlewein, 'Beiträge zur Geschichte und Beurteilung der hippokratischen Schriften', Philologus, 1884, 42, 119-33; ibid., 'Die Handschriftliche Grundlage des hippokratischen Prognostikon und eine lateinische Übersetzung desselben', Hermes, 1890, 25, 113-40; Beccaria, op. cit. 10 ff.; B. Alexanderson, Die Hippokratische Schrift Prognostikon, Gothenburg, 1963, 32-67, 124-32.

<sup>12</sup> I. Heeg, op. cit.; K. Sudhoff, 'Die pseudohippokratische Krankheits-prognostik nach dem Auftreten von Hautausschlägen "Secreta Hippocratis' oder 'Capsula Eburnea' benannt', Arch. Ges.

Med., 1915–16, 9, pp. 79–116: Beccaria, *I codici*, p. 27.

\*\* Beccaria, Sulle tracce I, pp. 10–12: Sudhoff, op. cit. pp. 110–11: Beccaria, *I codici*, nos. 44.2;

<sup>57.4; 133.13.</sup> 

that Sudhoff gave for the Prognostica Democriti, one notable development can be observed. Thorndike and Kibre in their collection of incipits give no further examples of the text of the Oxford MS, dating from the twelfth century or later, and it may be that this easily memorable document fell out of favour.25 On the other hand, a new series of Prognostica Galieni takes its place. An eleventh-century manuscript from Montpellier, Bibliothèque de la Faculté de médecine, cod. 185, 1r, which probably comes from a monastery near Avignon, contains a brief text with the heading 'Prontiea (Prognostica?) Galieni', which begins '... die qui (in) lecto ceciderit ...' and ends 'si vero VI die leviorem noctem abuerit ... die levabit.'26 This reappears in Vatican Cod. Reginenses 1324, f.66v, and in Florence, Biblioteca Riccardiana, Cod. 905, ff. 38-39, under the varying titles of Prognostica Galieni and Epitomia Ypocratis.<sup>27</sup> The circumstances of the origin of this second version and of its nomenclature are uncertain, but both tracts can be located securely within the medieval prognostic tradition. The Flos Medicinae is revealed as a metrical transformation of already existing prose passages, and the school of Salerno, if the authorship of the poem can be ascribed to it, is thus in this instance not the propagator of new learning to Anglo-Saxon England, but the receptacle of a part of current medical literature in which England also shared.

This examination of an Oxford MS. reveals, not the earliest manuscript of a Latin translation of Galen's 'On Prognosis', but an early example of medieval prognostications. Hippocrates' 'Prognosticon' is a remote ancestor of this snippet of medical knowledge which is designed for practical use rather than for learned comment and which can be seen as a further example of the vulgarization and transmission of the heritage of ancient science.

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<sup>&</sup>lt;sup>25</sup> L. Thorndike and P. Kibre, A Catalogue of Incipits of Medieval Scientific Writings in Latin, 2nd ed., London, 1963, p. 1082b.

<sup>&</sup>lt;sup>36</sup> Beccaria, *I codici*, n. 16. P. Pansier, 'Étude sur un manuscrit médical du XI siècle', *Mémoires de l'Académie de Vaucluse*, 2 ème série, vii, 1907, 115-22, and H. E. Sigerist, 'Early medieval medical texts in manuscripts of Montpellier', *Bull. Hist. Med.*, 1941, 10, 27-40., both record in detail the preceding magical incantation but not this fragmentary prognostic.

<sup>27</sup> Thorndike and Kibre, op. cit., p. 1517 col.a. The incipit is 'Solis die qui in lecto ceciderit.'