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Texts and Techniques in the Islamic and Christian Worlds

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This volume contains xii + 370 pages
The articles in this volume, as in all others in the Collected Studies Series, have not been given a new, continuous pagination. In order to avoid confusion, and to facilitate their use where these same studies have been referred to elsewhere, the original pagination has been maintained wherever possible.

Each article has been given a Roman number in order of appearance, as listed in the Contents. This number is repeated on each page and is quoted in the index entries.

Corrections and additions noted in the Addenda et Corrigenda have been marked by an asterisk in the margin corresponding to the relevant text to be amended.
PREFACE

The articles included in this volume aim to present the reader with raw materials for the study of magic and divination in the Middle Ages, in the form of texts, catalogues of manuscripts in which the texts occur, and explanations of the techniques described in the texts. More theoretical discussions, such as the nature of medieval magic, the role of magic and divination in society, and the arguments for and against magical and divinatory practices, are not broached. Astrology is not properly divination, and is such a wide field in itself that it has not been included in this volume, except incidentally.

The first nine articles are on magic. I describes the terminology of talismanic magic (or necromancy) in the Middle Ages. II introduces a Latin division of science of unknown date and authorship which gives prominence to the magical sciences, including the two divisions of the science of talismans. III and IV trace the history of talismanic texts from the Classical period through the Arabic world to the Latin Middle Ages. IV shows how an interest in acquiring the 'secret knowledge' of magic and divination was a catalyst for the translating activity from Arabic into Latin in twelfth-century Spain. V deals with the legend of the transmission of this secret science through a succession of three Hermes, and VI–VIII treat different aspects of one of the earliest and most important Arabic Hermetic texts: the *kitab al-Istamātīs*. Finally IX shows how magical texts translated in the twelfth and thirteenth centuries were still being copied and used in the early sixteenth century.

The next section deals with different forms of divination current in the Middle Ages—X with chiromancy, XI with onomancy, XII–XVI with scapulimancy, XVII–XVIII with geomancy and fortune-telling. Two articles on more miscellaneous topics conclude the volume: XIX tells one when to consult an alchemist, or (if you are the alchemist yourself) when to commence the Work, and, finally, XX deals with an apocryphal letter foretelling the advance of the Mongols.

Articles III, VII, VIII, X, XI, XV, XVII, XVIII, XIX and XX include editions, and XI, XIII and XVII include catalogues of texts on the subjects concerned, and the manuscripts in which these texts are found.
Previously unpublished editions (with English translations) have been added to X, and a revised English translation of an Arabic text is given in XII. Two articles have not been published before (I and IX), and one (VII) is republished in English in a considerably revised form.

These articles could not have been written without the resources of the Warburg Institute, and the inspiration of A. A. Barb, D. P. Walker and Frances Yates, and of many scholars who have passed through its portals. The importance of looking at the Arabic background to Medieval European culture was first brought home to me by Peter Dronke and the late Marie-Thérèse d’Alverny, who set me on the tracks of Hermann of Carinthia and Adelard of Bath. Several of these articles were written as by-products of my investigation into the Latin works attributed to Ya‘qūb b. Ishāq al-Kindī, which I started when I was a guest of the CNRS équipe ‘Histoire des sciences et de la philosophie arabes’ directed by Jean Jolivet in Paris in 1975. David Pingree has helped me in many ways, and is a living proof that prolonged exposure to magic does not corrupt one’s mind and personality. Alfons Barb once wrote that ‘a humanist must never close his eyes to the all-too-human. There are few human activities in the history of which an unbroken chain of tradition from the remotest antiquity to our days can be traced more clearly and conclusively than in the Magic Arts’ (‘The Survival of Magic Arts’ in Paganism and Christianity in the Fourth Century, ed. A. D. Momigliano, Oxford, 1963, p. 125). One may add that there are few genres of literature in which one obtains such intimate glimpses into the everyday life and concerns of human beings as in magic and divination.

Charles Burnett
Warburg Institute
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Talismans: Magic as Science? Necromancy among the Seven Liberal Arts

In the Middle Ages, as everyone knows, Philosophy was divided into the Seven Liberal Arts—Grammar, Rhetoric, Dialectic, Arithmetic, Music, Geometry and Astronomy. They are sculpted on the Portail Royal of Chartres Cathedral and provide the framework of Thierry of Chartres' magnificent collection of all that was needed for becoming a philosopher in the mid-twelfth century: the Heptateuchon. Surely, at least until the Aristotelian scheme was established in the thirteenth century, there could be no argument about the contents of philosophy? And yet there was. Petrus Alfonsi, a Jewish convert to Christianity, who was active translating Arabic scientific texts and promoting the study of astronomy in the first decades of the twelfth century, considered rather that the first six arts are dialectic, arithmetic, geometry, medicine, music, and astronomy, but, as for the seventh:

those who admit the possibility of prophecies say that it is necromancy; those who do not, say it is philosophy... and those who do not study philosophy say that it is grammar.

This quotation is from the highly respectable and popular work 'on the education of clerks' (Disciplina clericalis) which is a collection of edifying stories and recommendations for polite conduct. We come across necromancy again later in the century, in a work devoted specifically to the description of the parts of knowledge: Dominicus

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1 This paper was originally presented as a talk and the *viva voce* tone has been preserved here. Hence annotation has been kept to a minimum and no attempt has been made to be exhaustive in the treatment of the subject of necromancy. For further, and largely complementary information, I recommend the fine overview of 'necromancy' provided in chapter 7 of Richard Kieckhefer's *Magic in the Middle Ages*, Cambridge, 1989, pp. 151-75.


3 *Disciplina clericalis I: Lateinischer Text*, eds Alfons Hilka and Werner Söderhjelm, Acta societatis scientiarum Fennicae, 38.4, Helsinki, 1911, p. 10: 'Hae sunt artes: dialectica, arithmetica, geometria, phisica, musica, astronomia. De septima vero diversae plurimorum sunt sententiae quaenam sit: philosophi qui prophetias sectantur, aiunt nigromantiam esse septimam. Aliqui ex illis videlicet qui prophetis non credunt, philosophiam volunt esse septimam... Quidam qui philosophiae non student, grammaticam esse affirmant'. Petrus refers further to the art of prophecy, in citing from 'Plato in libro de prophetis' a story concerning a wise-man who can prophecy into the future, called Marianus, who is inspired by a 'prophetico spiritu' (ibid., pp. 34-5).
Gundissalinus’s *De divisione philosophiae*. This work was a harbinger of the new Aristotelian arrangement of science, and was often attached to the Aristotelian corpus in the university manuscripts of the thirteenth century. Under the general category (‘scientia universalis’) of ‘natural science’ Gundissalinus includes eight divisions: medicine, (astrological) judgements, nigromancy according to physics (‘nigromancia secundum physicam’), talismans, agriculture, navigation, optics and alchemy.\(^4\)

This division, Gundissalinus took from an earlier account of the natural development of human knowledge, an anonymous translation of an anonymous Arabic text called ‘On the rise of the sciences’ (*De ortu scientiarum*).\(^5\)

Going back a hundred years, one finds that the pioneering translator of Arabic medical texts into Latin, Constantine the African, is said to have been educated in ‘grammar, dialectic, rhetoric, geometry, arithmetic, mathematics (!), astronomy, necromancy, music, and physics.’\(^6\)

It seems strange that in such respectable sources ‘the conjuring up of the dead in order to prophecy’ (which is the literal meaning of ‘necromancy’) should be so well-integrated into the parts of philosophy. But what is really meant by ‘necromancy’ and how did it relate to other sciences? The term was already used in Late Antiquity, by Augustine in *De Civitate Dei* and Jerome in his commentary on *Ezechiel*, and received its correct etymology from Isidore of Seville who, in his *Etymologiae* defined ‘necromancers’ as ‘those by whose incantations the dead, having been resuscitated, seem to divine the future and reply to questions put to them.

\(^4\) Dominicus Gundissalinus, *De divisione philosophiae*, ed. L. Baur, *Beiträge zur Geschichte der Philosophie des Mittelalters*, Münster-in-W., IV.2–3, Münster 1903, p. 20: ‘scientianaturalis universalis est quia octo scientie sub ea continentur: scilicet scientia de medicina, scientia de iudiciis (corrected from Baur’s ‘indiciis’), scientia de nigromantia secundum physicam, scientia de ymaginibus, scientia de agricultura, scientia de navigacione, scientia de speculis, scientia de alkimia, que est scientia de conversione rerum in alias species, et hec octo sunt species naturalis scientie’.


\(^6\) H. Bloch, *Monte Cassino in the Middle Ages*, Rome and Cambridge, Ma., 1986, 3 vols, I, p. 127: ‘Babiloniam petit, in qua grammatica, dialectica, rethorica, geometrica, arithmetica, mathematica, astronomia, necromantia, musica, phisicaque Chaldeorum, Arabum, Persarum, Saracenorum plenissime eruditus est’ (from Petrus Diaconus, *De viris illustribus*). In the version of this text which appears in the *Chronica Monasterii Casinensis* (quoted ibid.) the word ‘necromancy’ appears to have been corrupted, or deliberately changed, into ‘nec non’.
TALISMANS: MAGIC AS SCIENCE

For ‘nekros’ in Greek is ‘dead’, ‘manteia’ is ‘divination’.\(^7\) In the Middle Ages, however, this strict sense of ‘necromantia’ was often lost sight of; the word became corrupted into ‘nigromantia’, and was used to translate the common Arabic word for ‘magic’—‘sihr’.\(^8\) For the understanding of the term in the Middle Ages we can do no better than to turn to the most authoritative book on the divisions of magic and astrology in the Middle Ages—Albertus Magnus’s *Speculum astronomiae* of the mid-13th century—the aim of which was to sort out which books in this area were licit and which illicit.\(^9\)

Albertus understands ‘necromancy’ to apply to certain kinds of magic using *imagines* or ‘talismans’. He adds that other forms of divination or magic are ‘coterminous’ with necromancy, such as geomancy, hydromancy, aerimancy, pyromancy and chiromancy, but it is on the talismanic art that he concentrates. He distinguishes three varieties of magic, of which the first two are ‘necromantic’. The first is abominable. This employs suffumigations and invocations. The demons, however, are not compelled by these ritual bindings, but God permits them to deceive the magicians. The second is less reprehensible, but still detestable. It employs characters, names and exorcisms and is to be avoided because beneath the cover of names in foreign languages may lurk what is contrary to the Catholic faith. The third type, which does not allow suffumigations, nor admit exorcisms and characters, relies on power

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\(^7\) Isidore, *Etymologiae*, ed. W. M. Lindsay, Oxford, 1911, VII, 9, 11: ‘Necromantii sunt, quorum precantationibus videntur resuscitati mortui divinare, et ad interrogata respondere. Νεκρος enim Graece mortuus, μαντεία divinatio nuncu-patur’. Augustine and Jerome are the only other ancient authorities for the term given in the CD-ROM Cetedoc Library of Christian Latin Texts, q.v. For the context of this form of divination, which is based on the belief that the spirits of the dead hovered in the atmosphere, see especially Theodor Hopfner, *Griechisch-Agyptischer Offenbarunzauber: seine Methoden*, 2nd edition, Amsterdam, 1983.


drawn from the celestial spheres. The element which distinguishes the necromantic types from the non-necromantic, would seem, therefore, to be the presence of exorcisms, or the summoning of spirits, in the former.

A parallel division of necromantic and non-necromantic magic is found in the twelfth-century division of the sciences known from its incipit as ‘Ut testatur Ergaphalau’. Having divided the science of the macrocosm into ‘astronomy’ and ‘astrology’ (though, typically, using the terms in the opposite sense to how we use them now), the unknown writer describes ‘astronomia’ (i.e., astrology) as follows:

Astrology is the science which, by running through the movements of the signs of the zodiac, of the planets and the celestial circles with the help of instruments, indicates the changes of lower substances in an absolute way. One kind is called primary and has to do with significations, the other, ‘changing’... The changing kind is called that of images,\(^\text{10}\) which by using a form (or image; forma), following the movement of the superior bodies, either preserves lower things in good fortune\(^\text{11}\) or, by producing a misfortune, brings harm to them. It has twelve species. One is called ‘of the questioner’, which, conceiving the form (image) of what is to be changed in a talisman (imago), brings about a change in the questioner according to his wish. Another is called ‘of possessing’, which teaches how to make a talisman for increasing or harming someone’s possessions. And so on, according to the twelve astrological places.\(^\text{12}\)

The science of talismans, the anonymous author continues, is also divided into ‘pure’ and ‘exorcising’. Here we find Albertus’s division. The pure is what teaches talismans to be struck without incantations and exorcisms, but only by inspecting the state of the higher bodies. ‘Exorcising’ is what teaches how to include spirits as collaborators in making the talismans, by using exorcisms and incantations.

Petrus Alfonsi, in another popular work of his—the Dialogue between his old Jewish self, Moyses, and his new Christian self, Petrus—also divides necromancy into species:

First you should know that the art which is called ‘nigromancia’ has nine parts. Of these the first four deal with the four elements <showing> how we can operate with them physically,\(^\text{13}\) but the five remaining ones

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\(^\text{10}\) The author uses adjectives formed from, respectively, the Latin and Greek words for ‘image’—‘imaginaria sive idealis’; the term ‘imago’, as we have seen, is the standard Latin word for ‘talisman’, and will be translated as such in the rest of this passage.

\(^\text{11}\) Reading ‘inferiora aut in fortuna conservat’.


\(^\text{13}\) This is clearly the ‘nigromancia secundum phisicum’ of Gundissalinus.
how one cannot operate with them except through the invocation of bad spirits ('maligni spiritus'). These bad spirits are called 'devils' by men.\textsuperscript{14} These bad spirits ('eorum qui in nichromantica arte operantur') dwell below the firmament,\textsuperscript{15} whereas the blessed souls of the dead reside in 'heaven'. Thus, according to Petrus, the story of the woman bringing back Samuel from the dead by necromancy can only be true in the sense that Samuel was not in heaven but under the jurisdiction of the devil in Hell; for the souls in heaven are out of reach of the spirits.\textsuperscript{16} Miraculous cures are performed not by magic but by the power of God.\textsuperscript{17} Then, Petrus cites from necromantic authorities themselves, which describe necromancy's limitations:

Moreover in the necromantic art it is read that a leper is never truly curied by it. In respect to the blind—at least, those who are blind from birth—physics is contrary to [necromancy], because medicine can bring light to them. Assitha the Magus bears witness that light is never truly restored to them through the necromantic art.

\textit{Moyses}: That may be. But what do you say about the dead, when the same Assitha claims that a man can revive them and speak with them, and shows the way to do it in his book, and on the other hand <what do you say about> what is read in the book of Kings, as we have said, of how Samuel was revived through a woman with a spirit?

\textit{Petrus}: It is certainly true that Assitha bears witness as you say, but there is a great distance between the work of God and that which is done through the art of magic ('magicam artem'), in respect to the resurrection of the dead. For the dead, when raised to life by a magician ('magus'), cannot walk further than the length of their shadow, but, when they reach that point, they fall to earth dead again.\textsuperscript{18}

It is possible that the differentiation in the \textit{De ortu scientiarum} and Gundissalinus's \textit{De divisione philosophiae} between 'necromancy according to physics' and 'talismans', shows the same distinction between what is carried on with the help of spirits, and what uses talismans without spirits. 'Physics' here presumably refers to the 'physical' arguments whereby the upper world 'moves' creatures of the lower world.

\textsuperscript{15} Ibid., p. 112.23-6.
\textsuperscript{16} Ibid., pp. 112.31-113.12.
\textsuperscript{17} Ibid., p. 116.28.
\textsuperscript{18} Ibid., pp. 117. All this proves that Jesus was not a magician. But even Christ's miracles can be explained physically; e.g., that he rose to heaven because his body was made out of the most subtle materials.
The works that Albertus describes as belonging to his third, licit species of talismans are Thabit b. Qurra's *De imaginibus* and 'Ptolemy' s work of the same name. 'Ptolemy' s *De imaginibus,*¹⁹ does, indeed, turn out to be a text without demons or fumigations, though it does include incantations, but these are addressed to the objects of the lower world, not to celestial powers. It tells one how to make talismans belonging to each of the decans of the twelve signs of the zodiac. To take an example:

When you want to bind robbers so that they do not enter the house, you will design ('figurabis') an image of a man in bronze, when the first decan of Aries is rising. After this you will say: 'I bind every robber from this house through this image'. Put it in the middle of the house and a robber will not enter it.²⁰

The *De imaginibus* of Thabit, however, exists in two Latin versions, which overlap in their subject-matter but are significantly different from each other. The first version is by Adelard of Bath, who translated Arabic mathematical and astrological works at the beginning of the twelfth century. The second is by 'Magister John of Seville and Limia', a mysterious figure working in Spain and Portugal in the second quarter of the same century.²¹ The most conspicuous difference between the two versions is that Adelard's includes the prayers to spirits, whereas in John's text all mention of spirits is absent. This difference is reflected in Albertus's classification in which, as we can see from the incipits Albertus includes, the licit text of Thabit on talismans (*De imaginibus*)—i.e., the one in the third category—is John's, whereas Adelard's text is included in a long list of illicit 'necromantic' texts which Albertus sets out to warn people away from them. Unfortunately we cannot yet compare either version with an original Arabic text of Thabit's work. However, from what we know of Thabit in other sources, it is most likely that he would have included prayers to the spirits of the planets and other spirits. For he is the best-known representative of the intellectual branch

¹⁹ See D. Pingree, 'The Diffusion of Arabic Magical Texts in Western Europe', in *La diffusione delle scienze islamiche nel medio evo europeo.* Convegno internazionale promosso dall'Accademia nazionale dei Lincei, Rome, 1987, pp. 57–102 (75–6). The ascription to Ptolemy is false; there is no evidence even of a Greek text of this sort.

²⁰ Paris, Bibliothèque nationale, lat. 16204, p. 539: 'Cum volueris ligare latrones ut non intrent domum, figurabis .o. (= imaginem) viri ex ere cum ascendit prima facies Alhamel. Post hec dices: "alligo omnem latronem ab hac domo per hanc .o." Pone eam in medio domus et non introbit in eam latro.'

of the Sabaeans in Baghdad in the ninth century.22 The Sabaeans came from the Syriac speaking area of Harran, and developed a religious philosophy which involved a curious blend of Aristotle’s natural science and Hermetic magic. They had built temples for each of the seven planets, and believed that there were powerful spirits residing in each of the planets, whose names they passed on in their esoteric literature along with the prayers to be addressed to these spirits. Thabit, as well as translating Greek scientific texts into Arabic, also wrote several texts on the Sabaean philosophy-religion, and was regarded by the Arabs as an expert especially on talismans.

We know that an Arabic text on talismans by Thabit was in Muslim Spain (al-Andalus) in the eleventh century, since phrases from its opening sentence are quoted in Picatrix:

Thabit b. Qurra, in the book that he composed about talismans, says that ‘The noblest part of astronomy is the science of talismans’, and adds: ‘it is said that no body has life which hasn’t a soul’.23

This is presumably the text translated by Adelard and John. For the opening in John of Seville and Limia’s translation runs as follows:

Thabit said that Aristotle said that he who has read philosophy and geometry and every science, but is ignorant of the science of the stars, is unable to do anything, because the science of talismans is more worthy than geometry and higher than philosophy. The Philosopher (Aristotle) said in the second treatise of his book [i.e., the De anima] that, just as there is no movement for a body that lacks a soul, nor life to an animate body except through food which is digested and suited to the body’s nature,24 so there is no light of wisdom when the science of the stars has been left out. And just as the spirit cannot live except by the food which is suited to the body’s nature, so there is no root of wisdom for him who lacks philosophy (or the science of the stars), nor is there the light of geometry when he lacks the science of the stars; and the height and summit of the science of the stars is the science of talismans.25

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22 The exact nature of the beliefs of the Sabaeans, the Greek texts they had available, and the works they composed, are not yet clear, and it is possible that certain Hermetic and astrological beliefs were foisted upon them. [For the account given here see the bibliography in article III below].

23 Picatrix, l.v.36, p. 23: ‘...Thebit ben Corat in libro quem composuit De ymaginibus, qui sic ait: scienza ymaginum est nobilior pars astronomie. Et subdit: corpus caret vita deficiente spiritu’.

24 This statement has only a general equivalent in the first chapter of the second book of Aristotle’s De anima.

25 De imaginibus, 1–2, ed. Carmody, p. 180: ‘Dixit Thabit Bencorah: Dixit Aristoteles: Qui philosophiam et geometriam omnemque scientiam legerit et ab astronomia vacuus fuerit, erit occupatus et vacuus, quia dignior geometria et altior philosophia est imaginum scientia. Et iam dixit Philosophus (v.l. + Aristoteles) in secundo tractatu sui libri quia sicut non est motus corpori anima carenti nec vita
John of Seville and Limia takes up the theme that the knowledge of the theory of astronomy without the skill to put that knowledge in effect is useless, in his preface to the translation. This preface places the science of talismans in its rightful position in the hierarchy of the arts and justifies its study through the telling of an experience which is allegedly that of the translator himself:  

Having read through the other books of astronomy, e.g., of the courses of the planets and others which seemed to be relevant to this art, and when I had obtained none of the things for the sake of which I had sought Hispanae partes, for several days I lay wasting away and affected by such aversion that, sedating my desperation on being now thought to be halting among the experts of this science, I threw from me the worry of such labour undertaken in vain. For I saw that I had laboured in this for too long a time, and, moreover, that I had expended not a little of my own resources in this—since I was making no profit from elsewhere—especially when, placed amongst wild races, I was living without help far from the domestic <comforts of people having> complete faith towards God. It is not necessary for me to tell you, wise as you are, what state of mind I was in.

The Master, seeing me in a bad way because of such worry and solicitously enquiring what was wrong, when he had heard about the weariness of my soul, seemed to smile. Finally, looking through the volumes of his books, he produced a small book written in Arabic from his bookcase, in which several books of his were enclosed. When I was demanding from him incessantly with an eager mind what it contained, he started to say this about the book:

‘Do not believe, dearest friend, that all those who study this science can arrive at the heart [i.e., esoteric knowledge] of it. For there are some who know the courses and conjunctions of planets and also of the signs, and contemplate in their minds the machine of almost the whole sky, to such an extent that they think nothing is lacking to them of this art. But, to confess the truth, their distance from it is as great as that of him who has never tasted anything of it. For our wise men, considering the nature and significations of the planets more subtly, seeing them now to be for the good, now for evil, from the hugeness of the capacity of their intelligence have excerpted certain proofs and examples, as it were, and have made

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26 This preface is edited and translated in full in Burnett, ‘Magister Johannes Hispalensis et Limiensis’ and Qusṭā ibn Lūqā’s De differentia spiritus et animae: a Portuguese Contribution to the Arts Curriculum?’, in Medievália, 7–8, 1996 (Festschrift for J.-M. da Cruz Pontes), pp. 221–68.
them the sum of this whole art—composing a book which they have called ‘on talismans’. In this is contained how the talismans can help or hinder the wise man or another person (as will be shown in what follows). Hence also certain people under the pretence of religion, judge this science to be, as it were, shameful, not noticing that God has bestowed this utility of His world rather on His servants; and, for the punishment of ill-doers and the praise of the just, He has made the art to be acknowledged amongst His works as wonderful beyond all others. But perhaps someone may object, saying among other things that it is not the will of God that anyone should operate evil. To which I reply: "Do you not know that an axe is made for splitting wood? Surely, if anyone kills a man with the axe, with a wicked mind, the use of an axe should not for this reason be blamed or rejected as if condemned? This is not the case, I say". But because I have replied sufficiently to these petty objections of our adversaries, let us turn to other things.'

This book, then, I obtained from him, with the help of God's Spirit—a book which no Latin other than a certain Auriocenus, who once obtained a part of it, ever had. If anyone, therefore, paying attention to this, wishes to know it, he should only make every effort to have (of all things) this book, i.e., a book on talismans. For through it, if he pays careful attention, he will without doubt obtain the sum of all this teaching. Pay attention then, whoever you are, and with a careful mind, think about what should be read in it, and consider diligently the significations of the planets both for good and for evil.

I am tempted to see the previous, partial translation mentioned here, as that of Adelard. The description of it as being ‘partial’ is appropriate, and Auriocenus could possibly be a corruption of Angligena or Anglicanus. What John does not say is that he has omitted all mention of spirits. Maybe this is implied in his contrast of Christianity to the religion of the ‘wild races’ he finds himself amongst. In this respect, as I have said, Adelard’s translation is probably more faithful to the original Arabic.

Adelard might have followed the advice of Petrus Alfonsi and studied necromancy, for, in his Quaestiones naturales he mentions taking lessons, along with his nephew, with an old woman magician (‘anus praestigiosa’) with the intention of learning how to perform magical incantations, since he was ‘most studious of incantations’ (‘incantationibus studiosus’). The ‘Liber praestigiorum of Thābit following Ptolemy and Hermes’ is the title he adopts for his own version of Thābit, probably taking up Isidore of Seville’s description of ‘praestigia’ as that which Mercury (i.e Hermes) invented, so called because it dazzled

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As a representative of the necromantic art I would like to look at its contents more closely.

In Adelard’s translation the necessity of knowing the science of the stars (both astronomy and astrology) before going on to the higher science of talismans is spelt out. First Adelard refers to astronomy. He criticizes those who believe in the advance of the vernal point in respect to the constellations of 8 degrees in one direction and then a retreat of the same number of degrees in the other, and favours what seems to us to be the impossible view—but one found in the Indian system known to the Arabs—that there is no movement of the vernal point (precession of the equinoxes). This is so that the ‘astrological’ constellation will be the same as the visible constellation. Thus creatures in the lower world will obey those in the higher: the individual lion will obey the zodiacal lion, the individual scorpion will obey the zodiacal scorpion etc. ‘without any sign of advance and retreat’.

Adelard then goes through the astrological knowledge that is necessary: the planets’ houses, exaltations, depressions, and nodal points; the fortunate and unfortunate aspects, the bright and shadowy degrees, etc. Adelard also refers to two other texts on talismans, including ‘Ptolemy’ s De imaginibus, which he evidently knew at first hand. The practitioner should not be preoccupied by any worries and should be free from other occupations. Moreover he should act with confidence. For ‘lack of hope is the mother of hesitation, and hesitation is the mother of ineffectiveness’.

The importance of this astrological training becomes apparent in the next section of Adelard’s treatise which gives rules for the casting of any talisman:

1) The bodily parts of the talisman are to be sculpted at the astrologically appropriate time: the eyes when the Moon is applying to the Sun in a fortunate aspect and the Moon is in one of its dignities and free from a malefic; the right ear when the Sun or Venus is applying to Saturn in one of its dignities, etc.

2) The lord of the ascendant should be a benefic, in a fortunate place, and free from a malefic, etc.

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29 Isidore of Seville, Etymologiae, VIII, 9, 33: ‘Praestigium vero Mercurius primus dicitur invenisse. Dictum autem praestigium, quod praestringat aciem oculorum’.

30 These are the subject of Abū Ma’shar’s Abbreviation of the Introduction to Astrology, which Adelard translated under the title ‘Ysagoga minor’ and to which he refers at the end of the Liber prestigiorum.

31 Liber prestigiorum, 12: ‘Desperatio autem mutatio, mutatio inefficatie mater est’. (The text is quoted according to the sentence-number of the edition in progress).
3) The client must have a serious intent when he poses his question, and the horoscope of the hour of the question must be accurately determined. This preliminary procedure will enable one to determine whether it is worth going on with the operation or not. (One determines, in particular, whether the horoscope is suitable to the topic concerned).

4) It is also helpful if the birth-horoscope of the client is known, because this adds weight to the testimony of the horoscope of the hour of the question.

Following these general rules Adelard gives instructions for making talismans, divided into two groups (arranged as two short books), the first is for gaining love:

1) gaining the love of your equal.
2) gaining the love of your son.
3) gaining the love of the king.
4) regaining the love of your husband or wife.

The second is for causing harm, and for other purposes:

1) causing hatred between people.
2) causing all-out war between people.
3) regaining stolen money.
4) increasing one's wealth.
5) winning a law suit.
6) protecting a place against misfortune.
7) destroying a city.
8) driving scorpions out of a city.

If you want to make a talisman for gaining love you use lead, iron, bronze, gold or silver. If you want to cause hatred, you use pitch and tar, bitumen and aloes. One may take as an example the procedure for making an image to entice the love of another person:

First the ascendant should be fixed and (as we have said) the appropriateness or otherwise of the question should be considered. If it is appropriate to carry on, first the ascendant and then the eleventh place (since this is the place that is relevant to association and friendship) and the lord of the ascendant are to be made fortunate. ... [other astrological considerations are mentioned] ... Having done this, with fixed intent one should entice an image of companionship out of the aforementioned seal. 32 Then the name of the person whose love is sought is inscribed. Then a second talisman should be cast with the name of the person seeking love, and should be drawn out of the eleventh place. When this has been done, their names and cognomina should be written on each talisman. The two talismans should be placed together in such a way that the name on one of them is pressed against the heart of the other. Then

32 This is, presumably, the talisman of a man's figure with the parts of the body sculpted at the astrologically appropriate time.
the 'rings' of the lords of the ascendant and the eleventh place should be painted on a clean cloth or on virgin parchment which has been fumigated with a perfume made with musk, ambergris and camphor. The two talismans are themselved fumigated with saffron, aloes-wood and frankincense, and then wrapped in this cloth. Do this three nights in a row, after bathing and wearing clean clothes, and, whilst you are doing this, pray as follows:33

"O shining spirits of the planets, you who descend from al-'ālam (i.e. the macrocosm),34 effectors of good and evil! Bind the spirit of Socrates, son of Sophroniscus, to the heart of Plato. Let their will and desire be one; let loathing and rejection be absent; but let the imagination and memory <of the other> be always present. Be present, too, spirits of the hours of the planets, not only by day, but also in the night and in their dreams. Bring the picture of Socrates' image before Plato's eyes to such an extent that, all other feelings excluded, he gives himself totally to him, by the power of God."

This done, the same images should be bound in a girdle of the same nature as the lords of the signs. Then they should be placed in the house of Socrates and Plato, such that the wind blows over them in the entranceway, but that they are out of the rays of the sun. A benefic must be in the ascendant at the time of the burying.35

If a wife wants to regain the love of her husband,36 an image of a most beautiful woman must be made, and bound to the talisman of the man—all this at astrologically appropriate times. Rings of Venus and the Sun are painted, while one says the following prayer:

"O fount of honour, joy and light of the world! Mix together the loves of these two people, o spirits, using your knowledge of mixing, and being helped towards this end by the greatest power and the might of al-malik (i.e., 'the king'), al-quddūs (i.e., 'the most holy') and al-hayāh al-dā'ima (i.e., 'the eternal life'),37 and by the power of him who moves the heavenly circles, giving to them nur (i.e. 'light') and 'iyyān (i.e. 'illumination')38 over this lower world." Then bind the talismans in girdles as before.39

When the intention is that the race of scorpions should be put to flight from any place, again, at an astrologically appropriate time,

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33 Note that Adelard retains several Arabic words in his prayers which he then translates into Latin; I too will keep the Arabic words, providing English translations only for Adelard's Latin interpretations.
34 'Al-'ālam' literally means 'the world'; the word appears as 'elaalem' in the Latin manuscripts.
35 Liber prestigiorum, 43–57.
36 This is ample proof that women were clients too.
37 The Arabic words appear as 'elmelic', 'elkeuddue', and 'elhaiedemi'.
38 The Arabic words appear as 'noram' and 'eian'.
the form of a scorpion should be made from bronze or tin or lead or gold or silver, in such a way that the right foot occupies the place of the left and the left that of the right. The name of the ascendant should be written in full along with (the name) of its lord; and also (the names) of the lord of the hour—and let it be the hour of the Sun, the lord of the day and also the Moon—it being in Scorpio—should be inscribed. Then it should be placed on the back at right angles (?) with the feet twisted back over the head, as if it is stinging itself. Then, when a little stone has been enclosed in its belly, it should be buried in the middle of the place or of the lair and, during the burial, this prayer should be recited: "May this species—every species of its kind—be put to flight from the present place—e.g., from Bath—so that none of them may be able to enter or inhabit (this place)."

If you decide to make four forms, they will have to be placed at the four sides of that place, when the place has been divided into four, and thus the talisman will be most secure. Let the same instruction be for every kind of animal or reptile, provided that the ascendant is put into relation with that kind.

Thus we see that ‘the noblest part of astronomy’ is, in fact, the practical part, as has already been said. This is emphasised in the first sentences of the text which in Adelard’s version may be translated:

> Whoever is skilled in geometry and philosophy but without experience of the science of the stars, is useless (otiosus); for the science of the stars is, of all the arts, both the most excellent in its subject-matter and the most useful because of the effect of talismans.

Talismans are useful. The same idea occurs in the translations of works on astrological judgements of the period, and indeed, according to Albertus Magnus, the talismanic art is simply a branch of astrological judgements: it is one way by which the astrologer gives his client information about hidden things, about future events, and, in particular, about how to secure what he wants by carrying out a specific ceremony at a specific time. For the Sabaeans, Thabit and his Latin translators, the science of talismans is the culmination of the science of the stars, which in turn is the final and most exalted of the seven liberal arts.

In the *Speculum astronomiae* of Albertus Magnus the science of talismans, which is mainly necromantic, also comes at the end of the list of the genres of astrology. But, whereas Albertus is in favour of the other branches of astrology, since they involve reading the signs put by God in His providence in the heavens, and not the manipulation of future events by magical means, he rejects the entire science of talismans, except the kind found in ‘Ptolemy’’s *De imaginibus*, and John of Seville and

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40. Ibid., 70–6.

Limia’s version of Thābit’s text. All the other books, which he is careful to name, must be assiduously avoided for the sake of one’s spiritual health. Nevertheless, he concedes, ‘they should be put aside rather than destroyed. For perhaps the time is already close, when for certain reasons about which I am now silent, it will be useful to have inspected them’. Fortunately, some of them were put aside, and still survive, and perhaps, now is the time at which it is safe to inspect them!

Appendix

The above article gives some medieval justifications for the use of talismanic magic. For a justification of prognostication and divination, it might be interesting to include a portion of the preface of ‘Ali b. Riḍwān to his commentary on the *Tetrabiblos* of Ptolemy. In the course of his argument, medicine, weatherforecasting from the rising and setting of constellations (*anwār*), and shoulder-blade divination are mentioned; all of these forms of divination he would have known in Cairo where he served as a doctor in the mid-eleventh century. The following is the Latin translation of Aegidius de Tebaldis, as in MS London, British Library, Royal 12.F.VII, fol. 2va:

Dico quod [astrologia] est scientia pronosticationum. Unde potest homo scire res que future sunt antequam sint, sicut phisici sciant presignacula que habent si eger sanari poterit vel non aut si sanum ad egritudinem venire potest vel non, vel ad quam infirmatum venire debet. Sicut invenies in libro pronosticationum Ypocras, et in libro suo aerum et aquarum et regionum, et in libro Galieni de crisi et in illo de diebus creticis. Similiter laboratores et minerarii habent suam artem quam intelligunt propter ortum et ascensum stellarum et earum occasum et propter ventos qui moventur et cognoscunt ea que contingere debent in arboribus, messibus et mineris, et id quod navibus in mari accidet, et cuiusmodi temporibus erit. Et moderni habent artem suam qua sciunt res futuras inspiciendo in cordibus, spatulis et epatiis bestiarum. Similiter augurerii et illi qui inspicient ad proverbia et qui multum usi sunt de una vel ministerio uno, habent eorum, scilicet unusquisque intentionem suam prosciendo res que future sunt antequam sint. Unde quia scientia pronosticationis est manerium multarum dicemus quod hec ars astronomie est una ex illis, et ante intelliges quod est certior omnibus aliis, verior et generalior, et in omnibus rebus completa.

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42 Speculum astronomiae, c. 17, ed. Zambelli, pp. 270–3: ‘De libris vero necromanticiis sine praeiudicio melioris sententiae videtur magis quod debeant reservari quam destrui: tempus enim forte iam prope est quo propter quasdam causas quas modo taceo eos saltem occasionaliter proderit inspexisse’. This text is repeated in the *Philosophia* of Magister Oliverius Brito in MS Oxford, Corpus Christi College 283, fol. 4r–v.
I say that astrology is the science of prognostication. From it man can know future things before they come about, just as doctors know what forewarnings they have as to whether the sick can be cured or if the healthy can become ill or not, or what illness he ought to suffer, just as you will find in the Prognostics of Hippocrates, and in his book Airs, Waters and Places, and Galen’s book On crisis and in that On critical days. Similarly farmers and miners have their own skill which they understand by the rising and ascent of the stars and their setting, and by the movement of the winds; and they know what ought to happen to the trees, crops and metals, and what will happen to ships on the sea, and what the weather will be like. The moderns too have their own skill by which they know future things by inspecting hearts, shoulder-blades and livers of animals. Similarly augurs and those who inspect with incantations (?). So each one of those who make much use of one (skill) or one ministry, participate in them for the purpose of foreknowing things which will be, before they are. Hence, because the science of prognostication is of many kinds, we will say that this art of astrology is one of them, and you will understand first that it is more certain than all of them, more true, more general and in every respect, complete.
The astrological works of Adelard consist, first, of a translation of the first thirty-nine propositions of a work falsely ascribed to Ptolemy, which is called in Greek and Arabic the ‘fruit’ (karpos or thamara), and, in the various Latin translations, the ‘hundred words’ or Centiloquium of Ptolemy. Secondly, a translation of the shorter introduction to astrology of Abū Ma‘shar, known as the Isagoge minor. Thirdly, a translation of a work on casting talismans, of which the title in Latin is Liber prestigiorum Thebidis secundum Ptolomeum et Hermetem, i.e., ‘the book of talismans of Thābit b. Qurra, which follows [the teaching of] Ptolemy and Hermes’.1

The Centiloquium was one of the most popular astrological texts in the Middle Ages. It consists of one hundred aphorisms giving succinct advice to the astrologer, or the doctor who was expected to make certain astrological observations. For example, the astrologer is told not to make an ‘election’ (i.e., not to tell his client what decision to make in regard to a given situation) unless he is sure of the strength of his client’s desire. ‘Otherwise’, we read, ‘the astrologer will be like someone reading a treatise in a language he does not understand. One cannot put confidence in him when he follows this course’.2

The doctor should not bleed a limb when the Moon is in the sign of that limb; one should not put on new clothes when the Moon is in Leo, etc. These aphorisms were translated from Arabic into Latin at least four times before the middle of the twelfth century. Adelard’s version is incomplete and may never have been finished.3

Abū Ma‘shar’s Isagoge minor is a much abbreviated version of his Introductorium maius. All philosophical and aetiological material has been rigorously excised, and we are left with bare astrological information of the type which could just as easily be set out in a series of tables. First comes the nature of the signs. For each sign most of the following information is given: the planet whose house the sign is; the planets whose exaltations and dejections occur in it; the lords of its three decans; its nature, described in terms of qualities, elements and humours; its sex; its taste; whether it rejoices by day or by night; whether it

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1 For the manuscripts of, and the secondary material on, Adelard’s astrological works see the Catalogue, pp. 163–96 below. I am grateful to David Pingree for reading this paper and suggesting some corrections.


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is a mobile, fixed, or two-bodied sign; whether it rises directly or obliquely; whether it is of a perfect or imperfect figure; whether it is liable to anger and/or lust; how many colours and forms it has; how many children it has; what division of the animal kingdom belongs to it; what strength of voice it has; which part of a man’s body and which cities and countries belong to it; what kind of terrain is assigned to it. Then Abū Maʿṣhar describes in turn the twelve astrological ‘places’ and the properties of the planets according to their position and movement and relationship one to another. There are twenty-five states in which the planets can stand in respect to one another, and various kinds of ‘misfortune’ can befall the planets; the ‘misfortunes’ of the Moon are particularly numerous. The individual natures of the planets are rehearsed in a way similar to that of the signs of the zodiac. The method of working out the ‘lots’, which are points on the ecliptic calculated by special means, is given. Lists of the periods of a man’s life ascribed to each of the planets, of the planets’ ‘boundaries’ within the signs, and the planets assigned to each ‘ninth part’ of a sign, are given. The degrees themselves are divided according to whether they are dark, shadowy, light, indifferent or empty, and according to whether they are masculine or feminine. Finally, the points on the ecliptic called ‘wells’ and ‘excesses’, where the planets respectively lose their efficiency and gain more power, are enumerated. The assignation of different terrains to different planets and the sections on boundaries, ninth-parts, shadowy degrees, masculine and feminine degrees, and wells and excesses, are not found in the Arabic manuscripts of the Isagoge minor known to me, but correspond to the relevant sections of the Introductorium maius.

The Liber prestigiorum gives instructions on how to make talismans. The practitioner should be skilled in astrology and should be confident in himself. For ‘desperation causes change, and change is the mother of inefficiency’. A melothesia (i.e., the assignation of each of the parts of the body to a planet) follows. Then we learn how to construct talismans for inducing love, for winning back a wayward spouse, for causing hatred, for finding lost possessions, for winning a law-suit, for promotion, and for driving out scorpions. The talisman can be made of tin or lead, bronze, gold or silver, depending on the planet whose power is invoked. An appropriate image is inscribed on it; it is fumigated with a mixture of spices, and a prayer is recited over it; it is then buried in the position where it might have the most influence over its victim. A similar procedure is applied to rings. The treatise ends with some miscellaneous astrological information, some of which duplicates that of the Isagoge minor. Unfortunately, no Arabic source for this work has been identified up to now.

4 Most of these classifications of the signs of the zodiac can be found in W. Hübner, Die Eigenschaften der Tierkreiszeichen in der Antike, Sudhoff’s Archiv, Beiheft 22 (Wiesbaden, 1982).
6 See Introductorium maius, vi, ix (terrain), v, ix (boundaries), v, xvii (ninth-parts), v, xx (shadowy degrees), v, xix (masculine and feminine degrees), v, xxi (wells), and v, xxii (excesses).
7 MS Lyon, Bibliothèque municipale, 328, fol. 70: ‘Desperatio autem mutationis, mutatio inefficacie mater est’.
8 The work Kanz al-asrār wa dhakhira al-asrār (The Treasure of Secrets and the Repository of the Upright), which is attributed to Thābit b. Qurra and Hermes Trismegistus jointly in MS Princeton, University Library, Yahuda, 673, is not the work translated by Adelard. The first sentence alone of the work apparently translated
All three of these works occur together in MS Lyon, Bibliothèque municipale, 328, a manuscript written in A.D. 1395. The Isagoge minor and the Centiloquium are both in the twelfth-century MS, London, British Library, Sloane, 2030; and the Isagoge minor once was followed by the Liber prestigiorum Thebidis in MS, Avranches, Bibliothèque municipale, 235, another twelfth-century manuscript. In no manuscript does the Centiloquium occur on its own.\(^9\) Only in one manuscript does the Isagoge minor occur without either of the other two works, and the Liber prestigiorum is found only in two further manuscripts, where it accompanies other works on talismans. Thus the manuscript tradition shows that these three works travelled together.

Their similarity in content and style of translation corroborates this. None of the works is accompanied by a preface by the translator. Personal asides intrude in only one work, the Liber prestigiorum, in which Bath is used as the example of the city from which scorpions are to be driven out.\(^10\) All three translations are crudely literal and suggest that the author was not yet confident in Arabic. Several words are left in Arabic — including such common terms as shameli (northern) and genubi (southern)\(^11\) — and in the Isagoge minor the Arabic equivalents of many of the Latin terms used are included in the margin, as if the translator is not certain whether his audience or his fellow astrologers would know what he meant to convey by the Latin term that he was trying out.

If a deliberate stylistic feature in these otherwise painfully literal translations can be observed, it is in the opening words of the Isagoge minor and Liber prestigiorum, which resemble each other. The Isagoge minor begins: ‘Quicumque philosophia scientiam altiorem studio constanti inquirens ...’ The Liber prestigiorum begins: ‘Quicumque geometria atque philosophia peritus astronomie expers fuerit ociosus est. Est enim astronomia omnium artium et rerum excellentissima’. Both these openings are based on phrases in the original Arabic,\(^12\) but the particular phraseology and some of the terms must surely have been influenced by the work De utilitatis astrolabii attributed to Adelard’s well-known predecessor Gerbert of Aurillac:


9 R. Lemay, however, has pointed out that there are manuscripts of the Latin Centiloquium in which more than one translation is given for each verbum, and Adelard’s is one of the translations used in these composite versions (n. 3 above, p. 101).

10 MS Lyon, Bibliothèque municipale, 328, fol. 73v: ‘...inter humandum hec oratio dicatur: hec species <et> omnis sui generis species a loco presenti, verbi gratia a Batonia, fuget, ut nulla eam vel intrare vel inhabitare queat’.

11 Isagoge minor, MS Sloane 2030, fol. 83. Adelard’s transliterations possibly represent an English rendering of shamali and janubi.

12 A literal translation of the Arabic text of the Isagoge minor in MS Paris, Bibliothèque nationale, ar. 2696 gives the following: ‘Ja’far b. Muhammad al-Balkhi, known as Abu Ma’shar, said: No true knowledge of the sciences would be reached except by permanent consideration of the wonders of the movements of the planets moving in the universal atmosphere and the knowledge of the existent causes in the world...’. The beginning of the Arabic text of the Liber prestigiorum as it is cited in Picatrix (n. 8 above) runs: ‘The noblest part of the science of the stars is the science of talismans’. This is closer to the version of Thabit’s Liber prestigiorum translated by John of Seville and edited by F. J. Carmody in The Astronomical Works of Thabit b. Qurra (Berkeley, 1960), pp. 180–97.
Quicumque astronomicae discere peritiam disciplinae et caelestium sphaerarum geometricaliumque mensurarum altiorem scientiam diligenti veritatis inquisitione altius rimari conatur...

Adelard expresses his debt to Gerbert in his *Regule abaci*,\(^\text{14}\) and his works travelled in the same manuscripts as the *De utilitatis astrolabii*.\(^\text{15}\) Moreover, a brief portion of the *De utilitatis* is found within the corpus of Adelard’s astrological works in Lyon, Bibliothèque municipale, 328.\(^\text{16}\)

The crude literalism of the translation and the experimental nature of the translations of technical terms suggest that Adelard is grappling with the problem of how to introduce new sciences to a Latin public. One might regret that Adelard himself did not write a preface explaining his methods, his choice of texts, the context of his translations, and the purpose which he thought they might serve, and if one turns to the only manuscript in which all three astrological works occur together, one might at first think that one has found the translator’s introduction. For in Lyon, Bibliothèque municipale, 328, between the *Liber prestigiorum* and the *Isagoge minor* is a work composed in Latin of which the avowed purpose is to locate the study of the science of the stars in its appropriate position in a scheme of knowledge.\(^\text{17}\) This short work has no title, but may be called from its incipit *Ut testatur Ergaphalau*. The catalogue of Thorndike and Kibre gives only one further manuscript of this work. This is a twelfth-century manuscript originally from the Cathedral Priory of Durham, and might have been part of the rich collection of medical and scientific manuscripts donated to the Cathedral by a physician named Her(i)bertus in the third quarter of the twelfth century.\(^\text{18}\) In this manuscript, now in Jesus College, Cambridge, *Ut testatur Ergaphalau* serves as the preface to a copy of Adelard’s *De opere astrolapsus*.\(^\text{19}\)

*Ut testatur Ergaphalau* is a curious work. It starts with a citation of Ergaphalau to the effect that ‘no one can understand any subject unless he has thoroughly mastered the sciences which precede that subject’. Since the science of the stars is the goal of all knowledge, then a rational division of the whole of knowledge must be given. What follows, however, in no way resembles the

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\(^{13}\) *De utilitatis astrolabii*, ed. N. Bubnov, in *Gerberti Opera mathematica* (Berlin, 1899), pp. 109–47; for the opening words see p. 114.


\(^{15}\) Among these manuscripts are Chartres, Bibliothèque municipale, 214; London, British Library, Arundel 377; Paris, Bibliothèque Mazarine, 3642, and Avranches, Bibliothèque municipale, 235.

\(^{16}\) This is the section concerning the seven climates, ed. Bubnov (n. 13 above), pp. 142–6; Lyon, Bibliothèque municipale, 328, fol. 74r–v.

\(^{17}\) This work is edited pp. 143-4 below.

\(^{18}\) MS Cambridge, Jesus College, Q.G.29; L. Thorndike and P. Kibre, *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin*, second edition (London, 1963), col. 1624, give in error Q.q.29. For the manuscripts of Herbertus see Beriah Bosfield, *Catalogi veterum librorum Ecclesiae Cathedralis Dunelmensis*, Surtees Society, 7 (London, 1838), pp. 7–8. The surviving manuscripts from Herbertus’s donation are small booklets, later bound in groups to form manuscripts. The booklet containing *Ut testatur Ergaphalau* and *De opere astrolapsus* is of a similar size and of the right date. The works, however, cannot be recognized among the titles of Herbertus’s books. See also E. J. Kealey, *Medieval Medicus* (Baltimore, 1981), pp. 44 and 130–1.

\(^{19}\) This manuscript of the *De opere astrolapsus* includes the first part (i.e., the cosmological part) only. Adelard’s text is followed without a break by a work on the uses of the astrolabe attributed in MS Paris, Bibliothèque nationale, lat. 16652, fols 28–39v, to Arialdus, but otherwise unattested.
divisions of sciences with which we are familiar from Boethius, Martianus
Capella, Hugh of St Victor, William of Conches or Bernardus Silvestris. 20
The author starts from basic principles. There are two kinds of science. The
first is that of the soul or the will. The second that of the body or nature. Natural
science (scientia naturalis) is shared by animals and men, and includes the
knowledge of eating, drinking, running, fighting, and bringing up young. Voluntary
science (scientia voluntatis) emerges from the impulse initiated by a
man's desire and is divided into philosophy, wisdom (sapientia) and science tout
court. The author does not explain the latter and describes philosophy only
briefly, stating that it is either concerned with fables and 'envelopes' (involucra)
under which the truth is hidden (he gives Martianus Capella's 'Philosophy' as an
example of this), 21 or it works through similes – revealing the nature of higher
beings through the consideration of lower ones. One would have liked the author
to have explained what he meant by this, but, instead, the author dedicates the
rest of his introduction to wisdom (sapientia). His conception of sapientia
appears to be that of Boethius, and one of his definitions is an echo of that used
by Boethius in his De arithmetica. Compare

Sapientia est comprehensio rerum que immutabilitatem essentie sue volente natura
sortiuntur (Ut testatur Ergaphalau)

with

Haec igitur, quoniam...natura inmutabilem substantiam vimque sortita sunt, vere
proprieque esse dicuntur. Horum igitur...scientiam sapientia profitetur (Boethius). 22
But he also defines sapientia as that which holds the middle position between art
and science. It is divided into a ministering and a ministered part. Here at last
we begin to feel that we may be entering familiar territory, because three subjects
of the quadrivium, music, arithmetic and geometry, are mentioned. However, we
soon lose our way again, because these three mathematical arts turn out not to be
ministering to astronomy, as a fourth, but rather to be propaedeutic to physica.
The author describes physica as the science by which the movements of natural
things are studied. Under it is subsumed the study, first, of the movements of
those things which come into being and pass away, which is the study of the
microcosm, or medicine; and secondly, the movements of those things which do
not suffer generation and corruption, i.e., the study of the macrocosm, or the
science of the stars. The latter is given the unprecedented title astronodia. Once
again the author presses into service a definition of Boethius, by describing
astronodia as the study of magnitude in motion. 23 But he attaches a statement
that firmly brings astrology under the wing of astronomy. His full definition is:

20 For the divisions of science current in the Middle Ages, see J. Weisheipl, 'Classification of the Sciences in
Medieval Thought', Medievai Studies, 27 (1965), pp. 54–90. For a schema of the division of science in Ut
testatur Ergaphalau see Figure I.
21 For the use of the word involucra in medieval philosophical exegesis, see P. Dronke, Fabula (Leiden, 1974),
pp. 56–7. By 'Philosophy' our author must mean Martianus's De nuptiis Philologiae et Mercurii, ed. J. Willis
(Leipzig, 1983).
23 Ibid., i, i, p. 9.5–6: 'magnitudinis...mobilitis...scientiam astronomicae disciplinae peritia vendicat'. In a
division of Philosophia preceding a copy of William of Conches's Philosophia mundi in MS Praha, StÄlin
knihovna. XIV.H.8, astronomia is divided into astronodia (sic) and astrologia. I am grateful to Bruce S.
Eastwood for showing me a microfilm of this manuscript.
Astronodia is the science of magnitude in motion, which investigates the two movements of the matter which is not subject to generation and decay, and which, by judging the threefold passing of time, reveals present things, predicts future things, and recalls to mind past things.

Astronodia is divided into astrologia and astronomia. This division does not correspond to our present-day conceptions of astrology and astronomy. The division is made, rather, according to whether an instrument is used or not. In all the subdivisions of astrologia an instrument is not needed, and the science is studied with the intellect alone. This is possible in the case of ‘fabulous astrology’ in which myths reveal the rationale of the stars (as in Martianus), historical astrology, in which historical events are seen to correspond to the yearly revolutions (and possibly conjunctions) of the heavenly bodies, and natural or rational astrology, which alone is the exact mathematical science of astronomy as we know it. The term astronomia is reserved for the science which needs instruments – i.e., the experimental science. It is here that the author expatiates most fully. This experimental science is divided into a part in which events of the past, present and future are discovered but not changed by the observation of the stars; and a part in which events are manipulated or engineered. Raymond of Marsilles, a contemporary of Adelard, described the same division in terms of contemplativa astronomia and activa astronomia. Various methods for the first part, i.e., for predicting events, are described, and for each an authority is given. Each is also given a curious name, in which Greek or Arabic words are dressed in Latin form. Thus we have ononica scientia, in which the numerical values of the client’s name are used; chronica scientia in which the judgment is made from the hour in which the client approaches the astrologer; augelas scientia, perhaps from the Arabic auj (‘apogee’), in which the positions of the planets in their houses are significant, etc. The ‘perfect kind’ of astronomia combines all these different methods. As for the manipulative science, this includes the science in which talismans are used alone, and the science in which talismans are used in conjunction with spells and incantations. The author ends his introduction by saying that some of this science does not seem to be in agreement with the Catholic faith, but he could, if need be, go on to show that it is all true.

Ut testatur Ergaphalau is not a translation from another language. The author is certainly aware of two definitions by Boethius and refers to Martianus by name. However, the subject-matter does not seem to belong to a Western European tradition, and most of the authorities appear to have come via an oriental route. One can recognize straight away the name Ptolemy, whose astronomia perfecta is presumably his Tetrabiblos, though it may be his Centiloquium. The textbook on ‘rational astrology’ is by ‘Alfagrani’ who must be the ninth-century author al-Farghani, and would be either his Elements, which summarizes Ptolemy’s Almagest and which was translated into Latin twice in the
twelfth century, or his commentary on al-Khwärizmi’s tables. These authorities show that the author was aware of Arabic astrological and astronomical writings of the kind that would have been available in al-Andalus any time from the late ninth century onwards. There are two indications, however, that suggest that the author may have had closer contacts with Jews rather than with Arabs in al-Andalus. First of all, the author mentions the *Astronomia quorundam Arabum*, as if he is not an Arab himself. Secondly, as an example of *astronomia planetica*, a work by a Jew is cited: *Astronomia Abinded ludei*. We know of at least one Abraham b. Daūd who wrote on astrology, for a passage in Latin is attributed to a man of that name in a Toledan manuscript; this concerns the relationship of the place of the ascendent at the time of conception to that of the Moon at the time of birth. Mlle d’Alverny has conjectured that this may be the same Abraham b. Daūd who fled from Cordova to Toledo in the middle of the twelfth century and was the author of the *Emunah Ramah*, and may in turn be identified with the Avendauth who collaborated with Dominicus Gundissalinus in translating Ibn Sinā’s *De anima*. However, Ibn Daūd must have been a common Jewish name, and we may be dealing with several different people.

In considering the possibility that *Ut testatur Ergaphalau* might be written by an author familiar with Jewish material, and seeing that his work occurs with that of Adelard of Bath and no one else, one might assess the possibility that Petrus Alfonsi had something to do with the work. For Petrus was a converted Jew and was in England at the same time as Adelard of Bath, probably as a doctor of King Henry I; his opinions on the lunar nodes and eclipses were written down by Walcher, Prior of Malvern; and it seems that his version of the tables of al-Khwärizmi was combined with that of Adelard at an early date. We know that Petrus himself wrote an introduction to the science of the stars, known as the *Letter to the Peripatetics of France*, which, in an abbreviated version, accompanies the composite text of the Tables of al-Khwärizmi. This letter, like *Ut testatur Ergaphalau*, emphasizes the importance of the science of the stars and attempts to locate it within a system of learning. Petrus refers to certain sciences as common to animals and man. He regards arithmetic as necessary for the other sciences, and he elevates *physica* as a discipline. Finally, both the author of *Ut testatur Ergaphalau* and Petrus claim that their science is not in

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27 MS Madrid, Biblioteca nacional, 10015, fol. 19v.


conflict with Christianity. However, there are some striking differences between the two writings. In describing science, Petrus takes as his starting point the traditional Latin trivium and quadrivium, finding reason to disparage grammar but to advance astronomy, whereas the author of *Ut testatur Ergaphalau* hardly brings the traditional seven arts into his framework at all. Petrus, in common with the Ikhwan al-Safāʾ, the author of the *Secretum secretorum*, and several translators in the twelfth century, divides the science of the stars into three parts, which we may characterize as celestial physics, mathematical astronomy, and astrology. The author of *Ut testatur Ergaphalau* makes a more detailed and idiosyncratic division of the science of the stars, as we have seen. The style of writing of the two authors is also very different, and Petrus shows no toleration for recherché Greek forms such as those used by the author of *Ut testatur Ergaphalau*. The common ‘feel’ of the two works may be due to a common aim and a shared Jewish background.

If Petrus is to be discounted as author, there are two references, not discussed so far, which point in another direction. The first is the name Ergaphalau itself, which occurs not only in the opening sentence but also in the name of the book on *chronica scientia*: ‘Astronomia Ergafalau ad Alexandrum’. The second is the authority on *onomica scientia*: ‘Astronomia Alexandri’.

A letter of Ergaphalau to Alexander is extant, and is, up to now, the only context in which the name Ergaphalau has been noted. It is a brief work which tells the astrologer how to predict what is in the mind of the client who is approaching him and what he holds in his hand, from the planet that rules the hour of his approach. It forms part of a compilation of works on judicial astrology (i.e., *astronomia* in the terms of our author) and is the only surviving compilation which we know to have been written in Latin between the late classical period and the time of Adelard. The compilation as a whole is variously known as *Liber Alchandrei, Mathematica Alhandrei summi astrologi*, and *Mathematica Alexandri summi astrologi*.33 The identification of Alchandreus with Alexander the Great is confirmed by several internal references to Alexander Macedo as the authority on which the information is based. Since a large part of the compilation concerns predicting from the numerical equivalents of the letters of the client’s name (i.e., onomancy), it is clear that the *Astronomia Alexandri* mentioned in *Ut testatur Ergaphalau* is a version of the same compilation.

Some of the material of the *Liber Alchandrei* comes from Jewish sources. In the case of the onomancy, the letters of the client’s name have to be converted into Hebrew characters before their numerical value is found. The Hebrew names of the planets and the signs of the zodiac are given, and the years between the creation of the world and the present day are given according to Jewish

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reckoning. The Jewish astrologer Sahl b. Bishr (early ninth century) is cited, though it might have been in Arabic that his widely-diffused introduction to astrology was known to the compiler of the Liber Alchandreii. Millás-Vallicrosa points out correspondences between the Liber Alchandreii and the Calendar of Cordova, a calendar written in Arabic for the Christian community there. Millás concludes that the Liber Alchandreii was written in Spain, but is based on texts of oriental provenance and incorporates both Jewish and classical material. Might we see it as a witness to an uninterrupted transmission in Spain of a simple form of astrology from the late classical times to the era of the translators? Other evidence for this transmission is provided by the lost Latin work known as the Book of the Crosses, a popular astrological work which had been translated from Latin into Arabic in Spain by the end of the eighth century. The date of the Liber Alchandreii is as yet unknown, but the earliest manuscript is of the late tenth century, and a revision of the work, which appears in at least two manuscripts, gives the 'present date' as A.D. 1040.

What is of interest to us is that, some time before the end of the tenth century, a more pretentious version of the material of the Liber Alchandreii was compiled. The reviser appears to have given the material the title Proportiones competentes in astrorum industria ('Corresponding ratios in the business of the stars'), though at least two manuscripts retain the title Mathematica Alexandri summi philosophi, and the work may have continued to be known as the book of Alchandreus. The text begins: 'In primordio (or exordio) omnis creature herus uranicus... ('In the beginning of all creation the heavenly master...'), and the use of recherché terms, especially of Greek etymology, such as uranicus, is typical of the work; e.g., we find Cillemius for Mercury, Phebus for the sun, Cela for the zodiac-sign Scorpio, ebdomada for week, hippocrates for the profession of doctor, peripateticus for the profession of philosopher, and even serapion for a kind of illness. What is most significant is that, of the six manuscripts seen by me, four appear to be of English provenance, and one of these accompanies Adelard's astrological works in MS London, British Library, Sloane 2030.

Let us look at this manuscript again. Into it have been stitched two gatherings of four bifolia each, written in the middle of the twelfth century, which comprise the following works only, in this order: Martianus Capella, De nuptiis Philologiae et Mercurii, book viii, De astrologia; Adelard's translation of the Centiloquium of Ptolemy; Adelard's translation of Abū Ma'shar's Isagoge minor;
and the *Proportiones competentes*. It is significant that the only Latin author that is mentioned by name in *Ut testatur Ergaphalau* is Martianus; that the author of *Ut testatur Ergaphalau* should express his allegiance to Ergaphalau and refer to Alexander, the main authorities on which the *Proportiones competentes* is based; and that the authors of both *Ut testatur* and *Proportiones competentes* should revel in using Greek and Arabic terms dressed in Latin garb. One may note that the title *Proportiones competentes* recalls the phrase in the description of astronomy in *Ut testatur Ergaphalau*, that this science determines the changes of things subject to generation and decay through the *proporatio* of the bodies which are not subject to generation and decay.

The successive versions of the *Liber Alchandrei* and the tradition of the manuscripts of these works are still to be studied in detail. However, it does not seem impossible for *Ut testatur Ergaphalau* to have been written some time before the end of the tenth century and by the same author as the *Proportiones competentes*, perhaps even as a preface to that work. The occurrence of both works with the astrological works of Adelard and the absence of an introduction to astrology by Adelard himself suggest that Adelard or an early follower may have supplemented pre-existing works on judicial astrology with Adelard's new translations and used *Ut testatur Ergaphalau* as a preface to that collection. We know that 'Alchandreus' was known to Adelard's contemporary who lived not too far from Bath, William of Malmesbury, for he compares Gerbert of Aurillac to "Alandraeus". We find the *De utilitatis astrolabii* attributed to Gerbert and *Liber Alchandrei* together in one eleventh-century manuscript, and one of the three manuscripts of Adelard's *Regule abaci* (a work which itself follows the tradition of Gerbert) once contained a work with the title *Libri Alchandrei philosophi de astrologia*.

The collection including *Ut testatur Ergaphalau*, *Proportiones competentes*, and Adelard's astrological works, did not survive long. The *Proportiones competentes* was soon replaced by more sophisticated works on judicial astrology, and Adelard's clumsy and halting translations of the *Centiloquium* and Abū Ma'shar's *Isagoge minor* were replaced by much more accurate translations of the former work, and two translations of the more useful *Introductorium maius in astrologiam* of Abū Ma'shar, whilst his translation of a work on magic-working talismans became lost in a mass of material on magic and the casting of spells. Nevertheless, the study of the contents of the *Liber Alchandrei*, *Ut testatur Ergaphalau*, and the early translations of Adelard of Bath could reveal in an interesting way the first stages in the emergence of astrology as a mathematical science in Europe in the Middle Ages, and *Ut testatur Ergaphalau* shows one way in which the traditional division of the quadrivium was set aside and replaced by a division of sciences more accommodating to astrology.

40 MS München, Bayerische Staatsbibliothek, Clm 560.
41 MS Leiden, Bibliotheek der Rijksuniversiteit, Scaliger 1 (s. xv).
42 See Lemay (n. 3 above).
An edition of Ut testatur Ergaphalau

J = Cambridge, Jesus College, Q.G.29 (s. xii), fol. 179.
L = Lyon, Bibliothèque municipale, 328 (A.D. 1395), fol. 74v.
Editorial changes have been indicated by italics.

Ut testatur Ergaphalau,¹ absoluta non potest haberi alicuius rei noticia nisi precedentium, velud ratio deposcit, doctrina elucescat. Inde est quod astronomie seria cupientibus scire, scientie terminus cum divisione perfecta est explanandus. Est igitur, sicut diffinit idem Ergaphalau,² status cuiusque rei intermerata et veridica³ comprehensio, vel corporis ad alicuius actionis vel passionis usum conveniens accommodatio. Inde est quod scientia alia dicitur corporis, alia anime,⁴ sive alia dicitur nature, alia voluntatis.

Naturalis scientia est bipertura, alia enim conservans dicitur, sive conservativa,⁵ alia disponens. Conservativa⁶ est que circa actiones corporis statum conservantes consistit, velut scientia comedendi, bibendi et reliquorum naturalium. Scientia disponens est que ex corporis amplificacione natura prima consurgit, ut scientia currendi, pugnandi et similibus. Est etiam⁷ scientia naturalis quaedam communis, quaedam specialis. Communis est que in rationalibus⁸ et brutis reperitur,⁹ et brutis rationem absolutionem, simpliciter et ad aliquod, ad scientiam vel ad noticiam naturalium introducunt. Ministrans est sapientia ut musica et arismetica, quœ per numerorum absolutionem, simpliciter et ad aliquid, ad scientiam vel ad noticiam naturalium introduct. Ministrata est geometria et phisica qua corpus quam altera manner alteri ministrat. Geometria enim motus et dimensiones corporum immobilter describens ad motus naturalium facilem parat accessum. Est igitur sola phisica ministrata que naturales immutationes rerum secundum transitum et moras continent absolvit. Que duplex reperitur. Alia enim dicitur microcosmica, alia megacosmica. Microcosmica scientia est ponendi modum ad modum, vel ad aliquod quod excedit, ut temperantia microcosmi, id est minoris mundi seu hominis, conservetur, et hec dicitur medicina. Megacosmica²² est scientia statum maioris mundi per quantitatis absolutionem et motuum conceptionem perquirens, et hec quidem phisica impassibilis est, eo quod in ea de natura impassibilium agitur, altera dicitur phisica passibilis, eo quod per eam noticia passibilium habetur. Dicitur etiam²³ megacosmica astronomia, quœ sic diffinitur: Astronodia est scientia magnitudinis mobilis utrumque motum impassibilis masse speculans, quœ triplex temporis curriculum duidicant /L fol. 75/ presentia demonstrat, futura predicat, et²⁴ preterita ad memoriam revocat; vel astronomia est scientia impassibilis masse naturam absolvens, motus magnitudinis eius speculativa²⁵ que etiam inferiorum imutationes²⁶ per proportionem impassibilium determinat. Dividitur autem hec in duo, videlicet in astronomiam et astrologiam. Astrologia est scientia astrorum speculativa²⁷ soli intellectu J fol. 180/-lectui deserviens, que magnitudines circulorum et planetarum motus directos vel indirectos sine exteriori amminiculo indagat. Dividitur autem astrologia in fabulosam, historiam et naturalem. Fabulosa est que quibusdam velut figuris coloratae de ratione disputat²⁸
astrorum, ut Astrologia MARTIANI. Historialis est que, per revolutiones annorum res gestas ad memoriam reducens statum superiorum perstringit, ut Astrologia HERMETIS. Rationalis est que simpliciter et sine integumento de esse astrorum et statu disputat, ut Astrologia ALFAGRAII.

Astronomia vero est scientia que per instrumentorum cooperationem signorum, planetarum et circulorum motus percurrents, inmutationes inferiorum absoluta significat. Astronomia alia dicitur prima et significantis, alia secunda et inmutans. Prima et significans est que per inspectionem superiorum quid esse vel futurum esse vel destiisse significet ostendit. Astronomia prima quedam dicitur perfecta, quedam imperfecta. Imperfecta alia dicitur chronica sive horalis, que per horas tantummodo de presentibus, preteritis et futuris respondere docet, ut Astronomia ERGAFALAE AD ALEXANDRUM. Alia dicitur onomica, que per nomenclum supputationem divinat, ut Astronomia ALEXANDRI. Alia dicitur planetica, que tantum statum planetarum inspecte docet, ut Astronomia PTOLOMEI. Secunda vero et immutans dicitur incantationibus imaginibus cooperandis spiritus includere docet. Imperfecta alia dicitur cronica sive horalis, que per horas tantummodo de presentibus, preteritis et futuris respondere docet, ut Astronomia ERGAFALAE AD ALEXANDRUM. Alia dicitur onomica, que per nomenclum supputationem divinat, ut Astronomia ALEXANDRI. Alia dicitur planetica, que tantum statum planetarum inspecte docet, ut Astronomia PTOLOMEI. Secunda vero et immutans dicitur imaginaria sive idealis, que sumpta forma secunda superiorum motum inferiorum statum demonstrat.

Hec habet duodecim species. Alia dicitur interrogantis, que in ymagine formam inmutationis concipiens, interrogantem pro velle suo inmutat. Alia dicitur prima et significans, alia secunda et immutans. Imperfecta alia dicitur cronica sive horalis, que per horas tantummodo de presentibus, preteritis et futuris respondere docet, ut Astronomia ERGAFALAE AD ALEXANDRUM. Alia dicitur onomica, que per nomenclum supputationem divinat, ut Astronomia ALEXANDRI. Alia dicitur planetica, que tantum statum planetarum inspecte docet, ut Astronomia PTOLOMEI. Secunda vero et immutans dicitur imaginaria sive idealis, que sumpta forma secunda superiorum motum inferiorum statum demonstrat.

aut infortunia conservat, aut infortunio * producendo contributum (L).

Hec de variis speciebus astronomiae breviter dicta sufficiant. /J fol. 180/ Quae in omnibus his imperfectis futurorum statum, preteritorum casus, presentium esse, perfecte phisiculatur, sicut Astronomia PTOLOMEI. Secunda vero et immutans dicitur imaginaria sive idealis, que sumpta forma secunda superiorum motum inferiorum statum demonstrat (J).

Philosophica est scientia que quibusdam involucris et similitudinibus ea que sunt subiecta sapientie speculatur occulte. Dicitur autem philosophica quasi amor sophie. Que dividit in fabulosam et assumtem sive similitudinariam. Fabulosa est que fabularum enigmatia subiecta sive significat, ut Philosophica MARTIANI. Assumens vel similitudinariam, que per similitudines supermna demonstrat.

Hec de variis speciebus astronomiae breviter dicta sufficiant. /J fol. 181/ Quae in omnibus his imperfectis futurorum statum, preteritorum casus, presentium esse, perfecte phisiculatur, sicut Astronomia PTOLOMEI. Secunda vero et immutans dicitur imaginaria. Dividit autem philosophica quasi amor sophie. Que dividit in fabulosam et assumtem sive similitudinariam. Fabulosa est que fabularum enigmatia subiecta sive significat, ut Philosophica MARTIANI. Assumens vel similitudinariam, que per similitudines supermna demonstrat.

Figure 1

The Division of Science in *Ut testatur Ergaphalau*

**SCIENTIA**

- **scientia voluntatis or animalis**
  - philosophica
  - sapientia
  - scientia simpliciter
- **scientia naturalis or corporis**
  - conservans
  - disponens

- **fabulosa**
  - assumens or ministrans
  - ministrata
  - comedendi bibendi etc.
  - currendi pugnandi etc.

**scientia naturalis is also divided into communis (shared with brute animals) and specialis (exclusive to man)**

- **astrologia**
  - historialis
  - naturalis
  - prima or significans
  - secunda or immutans or imaginaria

**astronomia**

- **perfecta**
- **imperfecta**
- **pura**
- **exorcismalis**

- **cronica**
- **onomica**
- **planetica**
- **augealis**
- **sensualis**

**scientia naturalis is also divided into 12 kinds corresponding to the 12 astrological 'places'**

- **musica arismetica geometria phisica**
  - microcosmica
  - megacosmica
  - = phisica passibilis or medicina
  - = phisica impassibilis or astronodia

- **fabulosa (Philosophica [sic] Martiani)**
- **similitudinaria**
- **= phisica**
- **= phisica**

- **cronica (Astronomia Ergafalau ad Alexandrum)**
- **onomica (Astronomia Abinded ludei)**
- **planetica (Astronomia Abinded arbitan)**
- **augealis (Astronomia quorumdam Arabum)**
- **sensualis**

- **perfecta**
- **imperfecta**
- **pura**
- **exorcismalis**

- **naturalis (Astrologia Alfagnali)**

- **primae mutans or imaginaria**
III

ARABIC, GREEK, AND LATIN WORKS ON ASTROLOGICAL MAGIC ATTRIBUTED TO ARISTOTLE

In the Benedictine Abbey of Tegernsee in the heart of the Bavarian Alps there is a manuscript, copied at some time in the thirteenth century, which contains a short work in Latin on how to make magical talismans. The work begins: 'Aristotle, full of good sense, said: When the moon enters its first mansion, which is called Sartan, make a talisman for love ... When it alights in its second mansion, Albotaim, make a talisman for the favour of princes, animate statues, call angels unto you'. In this manner it continues to the end. It is difficult to believe that such a work would have been allowed in a monastery, belonging as it does to the same genre of writings as the book of Iamne and Mambre and the phylacteries proscribed by Pope Gelasius. In any case a Tegernsee monk would not have found much practical use for the work. It omits to mention the material or the shape of the talismans, or the words used to summon the angels. But it has another defect. One is required to observe the position of the moon in its mansions—that is, in the twenty-eight constellations through which it passes on its sidereal orbit—to which Arabic names are given here, as elsewhere in Latin astrological works. Now, our work gives only the first fourteen of these twenty-eight mansions. The Latin text of the second half of the work, covering lunar mansions fifteen to twenty-eight, is missing. What is curious is that we have an Arabic text in a compilation by 'Abd al-Ḥasan al-Iṣḥāḥānī, written for a certain Ḥusain Irbili, probably at Baghdad at the beginning of the fifteenth century, which is incomplete in the same way. The page containing the work has the heading: 'The Account of the Description of the Twenty-Eight Mansions of the Moon', under which there are two columns each containing seven compartments.

Thus there is one for each of the first fourteen mansions, and there is no evidence that the descriptions of the other mansions once existed in this manuscript. On the left-hand side of each compartment there is a graphic representation of the meaning of the word approximating most closely to the proper names of the lunar mansions. On the right-hand side, separated by the name of the mansion itself, is the prescription for each mansion. The text is very similar to that of the Tegernsee fragment. The prescription for al-Shaṭṭān begins: 'When the moon is in it, make talismans (nārānjiyyāt) for the love of women', and for al- Buṭān we read: 'When the moon is in al- Buṭān make talismans for the love of kings, and fabricate amulets', etc. It is possible that both the Tegernsee and the Baghdādi texts derive from the same summary concerning making talismans according to the mansions of the moon. We are fortunate in having a fuller version of the text in Arabic from which such a summary may have been made, within a work called the Kitāb al-Ustuwwuṭās. Here all twenty-eight mansions of the moon are included, and the larger work into which the text is incorporated gives detailed instructions on how to make up the talismans and what secret names to use to summon the angels, or the spiritual forces, of the planets. The cryptic designs to be inscribed on the talismans and the natures of the rings into which they are to be set are also examined. The section on which talismans are to be made under which lunar mansions is firmly attributed to Aristotle. We read: 'Aristotle said: I found in the Kitāb al-makhzūn ("The Hidden Book") on the course of the

moon in its mansions in the zodiac, matters concerning the government of man himself in his conduct and affairs together with the technique of talismans (*nairanjāt*) and their effects. And a little further on we find: ‘If the moon enters al-Shārtain ... then make in it talismans for the love and affection of women ... When the moon is in al-Butain ... make in it talismans for the affection and love between kings and their subjects ... and make amulets in it’. In addition, for each lunar mansion it is suggested that certain activities should be undertaken or avoided, and the characteristics of the male and female children born under the mansion are described. The origin of the *Kitāb al-Ustuwwāt* is described as follows: ‘Ḫunain ibn Ishāq said: This is one of the books of Aristotle which we found and translated from Greek into Arabic. It is the book of the causes of the spiritual forces by Hermes ... And this is the book in which Aristotle explained the causes of spiritual forces and talismans ... And this is what Alexander demanded from Aristotle the Wise when he had completed the *Kitāb al-Islāmakhīs*, which he had composed for Alexander to take on his journey to Persia.’

Thus we have the history of a short text attributed to Aristotle. It purports to have been written for his royal pupil, and to have been translated by the greatest of the Baghdādi translators, Ḫunain ibn Ishāq (c. 809–73 A.D.). It was taken from its context and abbreviated in Arabic. At some stage in its transmission it lost its second half. The abbreviated and truncated version was translated into Latin—possibly via Greek, since the Greek word for moon, *nēmes*, is used—it was copied into a few manuscripts and eventually printed, in Venice in 1509.

This story raises the questions which are the concern of this paper: how is it that Hermetic works on astrology and magic were couched in the form of a correspondence between Aristotle and Alexander? Can we hazard a guess at the origin of these works? How widely were they diffused?

There is no doubt that Philip of Macedon summoned Aristotle back to his native land to be a tutor for the young Alexander. Whether any of the Greek correspondence that we have between the master and his pupil is genuine is a matter of dispute. An antique exchange of letters in which Aristotle explains to Alexander the value of his acroatic or esoteric writings has been claimed to be a forgery, possibly perpetrated by Andronicus of Rhodes. The Greek and Latin vitaewhich include lists of works of Aristotle are based on a lost life by a certain Ptolemy. It is also from Ptolemy’s life of Aristotle that much of the Arabic biographical tradition ultimately derives. But here we find some differences begin to appear. In the tenth-century bibliographical dictionary of Ibn al-Nadim we read of several letters on political and other subjects which passed between Aristotle and Alexander. Ibn al-Nadim quotes some political maxims, allegedly from these letters. However, his list of Aristotle’s works includes only a few items, such as the *Theologia*, which would not have been found in Ptolemy’s list. By the time we come to Ibn Abi Uṣaibī’ah, who wrote another bibliographical dictionary in the thirteenth century, the picture has changed considerably. At the end of his list of the canonical writings of Aristotle, Uṣaibī’ah writes: ‘Ptolemy said that “these are the sum total of the books I have claimed for Aristotle. But other men have claimed other books for him”’, and Uṣaibī’ah goes on to boast that ‘I say that there are many books of Aristotle which I have found other than those mentioned by Ptolemy’. He proceeds to give some forty titles. Amongst these are several books addressed to Alexander: ‘The Book on the Spiritual Forces and their Effects and their Regions’, the *Kitāb al-Islāmakhīs*, ‘The Letter on the Natures of the World’, the *Kitāb al-Islāmakhīs* (which, according to Uṣaibī’ah, Aristotle composed when
Alexander departed for al-Rūm, the Kitāb al-Mālātīs, and 'The Unmatched Book' (al-kitāb al-yatīm). Of these, the Kitāb al-Īstamākḥīs and the Kitāb al-Mālātīs (or al-Mādītīs), which is described as a commentary on the Kitāb al-Īstamātīs, still survive, alongside other works with similar-sounding and untranslatable titles, such as the Kitāb al-Ḥādītīs, and the Kitāb al-Ustuwwatīs (or al-Ustuṭās) which has already been mentioned. Moreover, the subject-matter of all these books is the same: that is, they concern the manipulation of the spiritual forces of the planets through the manufacture of talismans, sometimes accompanying this practical aim with a description of the stages of creation—leading up to the creation of man as a microcosm of the whole universe—in their relation to the spiritual aspects of the cosmos. Most of this material is said to have been revealed by Hermes, and to have been passed on by Aristotle to Alexander. Aristotle is sometimes portrayed asking Hermes a question, but usually he is merely a reporter.

Sometimes an account of the translation of these works into Arabic is given. There is a book of Hermes concerning judgements from the rising of Sirius, said to have been translated by a certain Naftouya and 'explained and corrected by Aristotle'. We have already seen that the Kitāb al-Ustuwwatīs purports to be translated by Ḥunain ibn Iṣḥāq. One is not surprised to find that, stylistically, the work does not match the genuine translations of Ḥunain, and the whole account of its transmission must be a fabrication. A work on talismans attributed to Aristotle is said to have been translated by Ḥunain ibn Ḥunain, the son of the translator Ḥunain, according to the Ghāyat al-Ḥakīm. Here we read: 'Iṣḥāq ibn Ḥunain also had translated a tract of Aristotle, who truly is the foremost of the Greeks and merits above all men privilege and the first position. I will explain this tract here so that you might obtain the knowledge of all the teaching of the Master'.

The thirteenth-century historian Jirjis ibn al-ʿAmīd Abī l-Yāsir (known as al-Makin) was aware of the tradition that Aristotle translated books of Hermes. He claimed that the translations were made from Egyptian into Greek, and mentions the titles and contents of some of them. The names al-Īstamātīs and al-Ustuṭās are recognizable among the titles of the books al-Makin mentions.

If we turn to the corpus of Hermetic works in Greek we do not find them associated with Aristotle or Alexander. Hermes might be speaking through his pupil Asclepius, or in dialogue with Thoth, but, amongst all his astrological and magical works in the Catalogus codicum astrologorum graecorum and discussed by Festugière in La Révélation d'Hermès Trismégiste, not one gives Aristotle the credit for passing on the wisdom of the Thrice-Great. However, the relation of the Arabic Hermetica to the Greek is not straightforward. Only one short fragment of the Corpus Hermeticum has so far been discovered in Arabic. The Kitāb al-Ustuwwatīs includes Arabic transliterations of Greek terms such as *istaqsat (στοιγεία) and maghnītis (μαγνητις), but this in itself does not suggest that it is translated from Greek.

Reitzenstein has shown similarities between the creation-story in the Kitāb al-Ustuwwatīs and that in the Pahlavi Bundahisn. Moreover, the word that has been translated as 'a talisman' in this paper is not the word tilesm derived from the Greek τέλεσμα, but nairanj, which comes from the Pahlavi word nirank 'magic'. The word nairanj is used in more than one sense, but generally refers to an object mixed from organic and/or inorganic substances which is employed as an amulet or talisman. In the tenth-century commentary on the ninety-fifth dictum of pseudo-Ptolemy's Centiloquium by Ahmad ibn Yūsuf, reference is made to the 'Persian books of nairanjāt'. Moreover, in respect to the nairanjāt described in Hermes's 'Hidden Book' we see an influence from further afield. For...
the twenty-eight mansions of the moon are the naksatras of Classical Indian astrology, which became known to the Arabs through the mediation of Pahlavi texts. David Pingree has described a Greek text, translated from a lost Arabic original, which concerns activities to be undertaken or avoided when the moon is in each naksatra. This text is based on three authorities, the Indians, Dorotheus, and the Persians. Since Dorotheus’s Carmen astrologicum was known to the Arabs only in its Pahlavi version, this Greek treatise fairly represents Persian doctrine. Moreover, the sections of the text which describe the characteristics of the male and female children born under each lunar mansion correspond exactly to the sections on the same subject in Hermes’s ‘Hidden Book’. So we have reasonable evidence that at least part of the Arabic Hermetica derived from Persian and ultimately Indian sources.

Further Indian connections for these works may be fictitious. The Kitāb al-Madīth, for example, purports to describe the nairanjāt which the ‘Indian spiritualist’ Kīnās had invented, and we find the same Kīnās mentioned as the author of a book on nairanjāt in Ḥāji Khalīfa’s bibliographical dictionary. The real or supposed Persian and Indian origin of some of the matter of these Hermetica might have encouraged their assimilation into the correspondence between Aristotle and Alexander which included accounts of the marvels of the East and the wisdom of the Brahmins. For the twelfth-century Arabic–Latin translator, Hermann of Carinthia, Hermes, together with Asclepius, was a pupil of the Indian king Agathodaimon, who, in Hermann’s words, ‘lived long before Porus, who was a contemporary of Alexander the Great’.

In that this complex of Hermetic works transmitted under the name of Aristotle contains Indian and Persian elements, it fits in with the cosmopolitan culture of the scholars serving the early ‘Abbāsid caliphs in Baghdad. It may, however, be possible to define its place in this culture more precisely.

In 1883 De Goeje noticed that the names of the spirits of Jupiter in the Oxford manuscript of the Kitāb al-Istamākhīs corresponded with a list of nine names by which Jupiter was invoked by the Sabaeans, according to al-Ṭabarī’s description of the practice of the Sabaeans, as related in the Ghayat al-Ḥakīm. The Sabaeans, as is well known, were a religious community living in the Syriac-speaking area of Ḥarrān. They believed that God as prime cause was so far removed above humankind that man could only reach him through intermediaries, which were, for them, the planets. They therefore developed elaborate rituals for sacrificing to each of the planets. The two principal prophets of the Sabaeans were precisely the Hermes and Agathodaimon mentioned by Hermann of Carinthia. Moreover, according to Ibn al-Nadīm, their scientific speculation was based on the works of Aristotle. It would be quite natural to expect the welding together of the authorities of Hermes and Aristotle to have taken place within such a climate of belief. In a Leiden manuscript, fragments of the Kitāb al-Ustuwwatās are accompanied by a text called ‘The Secrets of the Sabaeans’, and the connection of the Kitāb al-Istamākhīs with the Sabaeans is corroborated by Maimonides who, in his Mōreh-Ḥaẓ-Neḇūḵīm, lists among the books of the Sabaeans and alongside a book on talismans attributed to Aristotle, a certain ‘Stomachos’, which, he says, is falsely attributed to Aristotle.

An intellectual branch of the Sabaeans established themselves in Baghdad under the leadership of Thābit ibn Qurra (c. 826–901 A.D.). Not only did Thābit write several works in Syriac concerning the religion of the Sabaeans, but also he was one of the leading scientific writers of his age. It is significant that certain Hermetic writings are attributed to him, and that he is regarded, in particular, as an authority on talismans. A work of his
on talismans is quoted in the \textit{Ghāyat al-ḥakīm}, and exists in a Latin translation.\footnote{See Appendix I for an edition of this work. The fullest description of this work up to now is a brief summary of the printed version in M. Steinschneider, \textit{Zur Geschichte der Übersetzungen aus dem Indischen ins Arabische}, \textit{Zeitschrift der Deutschen morgenländischen Gesellschaft} (hereafter \textit{ZDMG}), 25 (1871), p. 384.} This work in itself shows a curious blend of Aristotelianism and Hermeticism in its opening words:

Thābit ibn Qurra said: Aristotle said that whoever reads philosophy and geometry and every science and is without experience of astrology, will be hindered and obstructed, because the science of talismans is more precious than geometry and more profound than philosophy. Aristotle the philosopher said in the second treatise of his work that just as a body does not move which lacks a soul, nor is there life to the soul unless through the food by which its elements are restored, so those lack the light of science and wisdom who have no experience of astronomy ... and the most exalted and worthiest part of astronomy is the science of talismans.\footnote{See B. B. Boyer and R. McKeon, ed., \textit{Peter Abailard, Sic et Non: A Critical Edition} (Chicago, 1976-7), p. 110 (from the \textit{Decretum Gelasii}, chapter five).}

The second citation of Aristotle refers more or less accurately to the second book of Aristotle’s \textit{De anima}, a work which was known to the Sabaeans,\footnote{On the lunar mansions see M. Steinschneider, \textit{Über die Mondstationen (Naxatra) und das Buch Arcandam'}, \textit{ZDMG}, 18 (1864), pp. 118–201, and D. Pingree, \textit{The}...
Indian and Pseudo-Indian Passages in Greek and Latin Astronomical and Astrological Texts', *Pluton*, 7 (1976), pp. 141-95 (174-6). The curious fact that a 5 precedes the Arabic definite article in the transliteration of the names of most of the lunar mansions in our text might be due to the erroneous inclusion of the Arabic preposition bi 'in', which is combined with the word it precedes in Arabic.

* See Plate 1 and Appendix II. The manuscript containing the compilation—Oxford, Bodleian Library, Or. 133—was described as a whole as the Kitāb al-balūhān of Abū Ma'shar (see F. Sezgin, *Geschichte des arabischen Schrifttums*, VII (Leiden, 1979), pp. 24-5). I am grateful to the Warburg Institute for access to copies of photographs of several folios from this manuscript.

* For example, for al-Shartain there is a two-headed animal which may represent a double portent (sharātān); al-Buṭān is represented by a pot-bellied man (baṭīn).


* The Ikhwan give as their source 'the companion al-Aṣīsās' and the passage is a slightly abbreviated version of that in MS P, with the addition of the degrees and sevenths of a degree of each mansion, as in the Tegernsee text. 'Hermes the talismans for the twenty-eight mansions' in *Var. Reg. lat. 1283, fols 23v-24v* (in Spanish) and a longer text on the same subject in the *Ghāyā* (ed. pp. 14-23, tr. pp. 15-21) do not seem to be derivable from the Kitāb al-Uṣūwwātāsī, and do not give Aristotle as an authority. I have not been able to consult the manuscripts of the Kitāb al-Iṣtāmālit al-Hākim ... fi tadbīr manāzīl al-qamar and the *Muṣḥaf al-qamar* of *Aristotle* referred to by F. Sezgin in *Geschichte des arabischen Schrifttums*, VII (Leiden, 1979), pp. 62 and 63.

* P, fol. 24r.

* A translation of the passages on the first two lunar mansions in MS P is given in Appendix III.

* P, fol. 38r. An attempt to sort out the different titles and introductions occurring in the work in Paris, BN ar. 2577, was made in Burnett, art. cit., p. 169, n. 13.


* Ricci, *Ibn al-Iṣām, possibly the De mundo which was addressed to Alexander. This work, however, may already have been mentioned with the Arabic title 'The Golden Letter', earlier in Usābih’s list.


* e.g. P fol. 22v: 'Aristotle said: 'I asked Hermes the Wise which hours of the night and the day were best for making (talismans)''.

* The typical formula is qāla Aristāldīs qāla Hermīs ('Aristotle said Hermes said . . .').


* I am grateful to Dr F. W. Zimmermann for pointing this out to me.


* P, fols 3r and 61r respectively.

* Ursula Weisser’s conjecture that material from the Kitāb al-Iṣtāmālit was borrowed by the author of the Sirr al-ḵalīqa at a 'pre-Arabic' stage (Das 'Buch über das Geheimnis der Schöpfung' von Pseudo-Apollonios von Tyana (Berlin and New York, 1980), p. 69) has been questioned by F. W. Zimmermann in his review of Weisser’s work for *Medical History*, 25 (1981), pp. 439-40.

* Studien zum antiken Synkretismus, pp. 118-19.

* See *Picatrix*, translated by Ritter and Plessner, p. 253, n. 3. I have adopted the vocalization niːn̩j rather than niːn̩j (which is used by Ullmann in *Die Natur- und Geheimwissenschaften*, p. 363), because this is the spelling consistently employed in MS P.


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32 The section on talismans in the Sirr as-asrār (another work addressed by Aristotle to Alexander) is very similar in the rituals it prescribes to MS P. and the ‘Royal Talisman’ (Secretum Secretorum, Opera hactenus inedita Rogeri Baconi, v. ed. R. Steele (Oxford, 1920), pp. 275-8) corresponds in many details to the most efficacious ring of Jupiter in P, fol. 69v.


34 Ullmann, Die Natur- und Geheimwissenschaften, pp. 374-5. See also n. 6 above.

35 De essentia, 72vD (Ed. C. S. F. Burnett, p. 182).


37 British Library, Harley MS 80, fols. 76r-77v.


40 I am grateful to Ahmed Talib al-Hamdi and Haytham Bayasi for advice on the translation of Arabic passages used in this paper, and to Professor David Pingree of Brown University for comments.

APPENDIX I

Pseudo-Aristotle, De Luna

* The work attributed to Aristotle concerning the lunar mansions apparently exists in three manuscripts and one printed source:

T Munich, Bayerische Staatsbibliothek, clm 18297, 13th c. (from Tegernsee Abbey), fols 129r-129v.

M Madrid, Biblioteca Nacional, 10053, 13th c., fol. 32vb.

K Copenhagen, Gl.Kgl.Saml., 3499, 15th c., fols. 92v-95v.

L P. Liechtenstein, Sacratissime astronomie Phtholemi liber diversarum rerum (Venice, 1509), fols 13r-13v.

This manuscript is described fully in J.-M. Millás-Vallès, Las Traducciones orientales en los manuscritos de la Biblioteca Catedral de Toledo (Madrid, 1942), pp. 180-202.

The work on fols 92v-95v is described as Liber ymaginum lune qui dicitur liber lune. K gives an extensive preface which is not shared by TL, and which affirms the authorship of Hermes. The second half of the entry for each lunar mansion in K corresponds with the second half of the entries in TL, while the introductory paragraph in TL ('Aristotes plenior sensibus (artibus K) gratia dei ubicunque') is added after entries for all twenty-eight lunar mansions in K on fol. 95v. K therefore appears to be a composite work whose relationship with other works described as 'Hermes, Liber Lunœ' needs further investigation (see L. Thorndike, 'Traditional Medieval Tracts Concerning Engraved Astrological Images', Mēlanges Auguste Pelzer (Louvain, 1947), pp. 239-41).
III

ASTROLOGICAL MAGIC ATTRIBUTED TO ARISTOTLE

In TML the De Luna follows, as a kind of appendix, the Ludicia of pseudo-Ptolemy. In K the work is preceded by Thabit's De Imaginibus, on fols 86r–92v. The edition below is based on TL. The translations of the names of the lunar mansions are found only in L, but are virtually the same, as far as they go, as those found in Agrippa von Nettesheim, De occulta philosophia, ii, chapter 33.4

De luna secundum Aristotilem

Aristotiles plenior sensibus dixit:
Selini clare videtur habere astra .xxviii. per que transgreditur
et per ununquodque astrum stat horis .xxiv.. Properea sic ordinans,
5 ut inferius prospicies, nomina locorum clare nominando monstravit, et
quicquid in locis continetur ostendit gratia dei ubicumque.

1 Arietis .xiii. gradus minus una septima.
When vadit selini, id est luna, sartan, fac pro amore, (non) vestimentum novum induas, neque cornom potestasibus huius mundi /T 129v/
vadas. Si autem aliquis uxorem acceperit, amor est inter utrosque.
Compara, non semines, neque negotium facias. Ulli medicari non incipias,
neque aliquam viam incipias.
Si natus infans aut mulier, luxuria habundabunt.

2 Arietis .xxvi. gradus minus duas septimas.
15 Quando descendit albotaim, fac ad amorem dominatorum terre, idola
confla, angelos ad te clama, cornam dominis terre intra. Uxorem
non accipias, non compares, non novum vestimentum induas.
Si quis natus fuerit, erit bonus, sapiens; femina erit meretrix.

3 Arietis quattuor ultimi gradus minus duas septimas et Tauri .ix.
20 gradus minus (tres) .vii.
Cum autem hec astra pertransit, fac causa amoris, idolum fac, iter
incipe. Ante dominum intra, angelos iube venire, uxorem accipe.
Compara, novam vestem indue.
Si masculus aut femina natus fuerit, dives erit.

4 Tauri .xxii. gradus minus duas septimas.
25 Ut autem descendenter beltubran, fac pro inimicitii, non intres
ante dominum, compara, vestem novam induas. Non semines, non accipias
uxorem, non incipies iter.
Si quis natus fuerit, erit cupidus, malus; femina simileter.

5 Cum vero descendenter belcata, venenum fac, idola confla, angelos
30 flagitta. Non semines, uxorere non accipies.
Si masculus fuerit natus, malus erit; femina bona.


4 See M. Steinschneider, 'Ueber die Mondstationen', ZDMG, 18 (Leipzig, 1864), p. 152 and Table I.
6 Si intraverit belcamina, fac ad amandum atque idola. Uxorem accipe, compara, intra ad regem, semina, viam incipe.  
Si vir vel mulier natus fuerit, boni erunt.

7 Ut intraverit alchiraon, fac pro amore, intra ante dominum, semina, compara, vende, viam cape.  
Si quis natus fuerit, erit bonus et sapiens.

8 Cum vadit besulc, venenum fac et scandalum atque idolum. Non novam vestem induas. Iter fac, intra ante dominum terre, semina.  
Uxorem non tollas, non comparas.  
Si quis natus fuerit, periculosus in via erit; si femina, amabitur ab omnibus.

9 Ut autem descendit baltarfa, fac scandalum, linguam liga cuvis.  
Novam vestem non induas, ad imperatorem non intres, uxor non accipias.  
non comparas, non vadas ad bellum. Si quis natus fuerit, fornicator erit.

10 Cum vadit belabe, absolue ligamenta, idolum fac, ad regem intra.  
Semina, uxor accipe.  
Si quis natus fuerit, fier absque veritate; si femina est, absconse nubere amat.

Si aliquis natus fuerit, bonus fict et prosperitas illum sequitur.

12 Quando ierit belsarf, flagitta scandalum. Non semines, non intres ante dominum, non emas. Novas vestes non induas, viam vade.  
Si natus fuerit homo, est dissimilis spiritu; si femina est, mala lingua est.

13 Et ut ierit belugua, fac pro amore, semina, non preliare. Intra ante dominum terre, viam perge.  
Si aliquis homo natus fuerit, malus; femina amatur ab omnibus.

14 Quando descendit belscemel, fac pro scandalo, non semines. Non intres ante dominum, non comparas, non incipias iter.  
Si homo natus fuerit, raptor et malus est.

In the margin L gives the following equivalents:

1. Sarcan, id est cornua Arietis
2. Albotaim, id est venter Arietis
3. —
4. Beltubran, id est oculus Tauri
5. Belcata, id est caput validi canis
6. Belcamina, id est stella parva
7. Alchiraon, brachium Leonis
8. Belsule, id est nebula.
9. Baltarfa, id est oculus Leonis
10. Belabe, id est frons Leonis
11. Beldebra, id est capillus Virginis
12. Belsarf, id est cauda Leonis
13. Belugua, id est canis
14. —


APPENDIX II

The Lunar Mansions in the Kitāb al-bulhān (Bodleian, Oriental 133, fol. 27v)

The Account of the Description of the Twenty-eight Mansions of the Moon:

1. Al-Sharrāin. When the Moon lodges in it, then make in it talismans of love between women, and do not put on new clothing in it, and do not approach kings in it, and deal with its spiritual forces for hatred. Whoever is born, if he is male, the outcome for him is not good; and if she is female, she will be secretly (dissolute). (illustration of a two-headed portent)

2. When the Moon lodges in al-Buṭtain, then make in it talismans of love for kings, but not for women, and make in it amulets, and approach in it kings [and kings] and Emirs, and do not put on new clothing in it. Whatever male is born in it, he will have many enemies, and if she is female she will be immoral, disgraced and hated by men. (illustration of a pot-bellied man)

3. When the Moon lodges in al-Thurayyā, then make in it talismans of love and the loosening of the bound, and the loosening of ( ) in it, and approach kings and dignitaries ( ) in it, and build buildings in it. Whatever male or female is born in it, they will be good and beautiful ( ) and chosen for marriage. And Allah will make it known. (illustration of a candelabra)

4. When the Moon lodges in al-Duburān, then make in it talismans of hatred and enmity, and do not approach) in it kings and dignitaries (and do not) rebuild in it, and do not plant and do not travel. Whoever is born, if he is male, the outcome will not be good, and if she is (female) she will be immoral and men will not love her. (illustration of buttocks)
5. When the Moon (lodges in) al-Haq'a, then make in it (talismans of ), do not sow and do not build, and do not ( ) not good, and put on (new clothing ) travel. Whoever is born ( favoured) among (men). (illustration of a mythical creature)

6. — (illustration of a mythical creature)

7. — (illustration of the forearms)

8. When the Moon lodges in al-Nathra, then make in it talismans of enmity and hatred, and do not put on new clothing in it, and travel in it, and approach kings in it, and do not marry and do not buy and do not sell. Whatever male is born in it, he will be hated and slandered among men. and if she is female she will be favoured among men. (illustration of a rose with four heads growing from it)

9. When the Moon lodges in al-Tarf, then make in it talismans of enmity and bind in it desire, and do not put on new clothing in it, and do not approach kings in it, and sow. Whatever male or female is born in it, they will be unfortunate, wicked, disgraced, not of good conduct. And Allah will make it known. (illustration of the tail-end of a creature)

10. When the Moon lodges in al-Jabha, then make in it (talismans) for the loosing of desire, and make in it amulets, and approach kings in it, and marry and do not put on new clothing in it. Whatever male is born in it will be sly and if she is female she will have a good nature. And Allah will make it known. (illustration of the forehead of a lion)

11. When the Moon lodges in al-Zubra, make in it talismans for love and affection, and approach kings in it, and marry and do not put on new clothing in it and do not travel, and dispatch spies in it, and make foundations for a building in it, and solitude with women will be good in it. And Allah will make it known. (illustration of a piece of iron?)

12. When the Moon lodges in al-Šarf, then make in it talismans of enmity, and make in it amulets, and do not approach kings and do not marry, and do not put on new clothing in it, and travel in it, and in it there is well-being. Whatever male is born in it will be loved, and if she is female she will be immoral. And Allah will make it known. (illustration of turning-away)

13. When the Moon lodges in al-'Awwā, then make in it talismans of love and encounters with dignitaries, and put on new clothing in it. Whatever male is born in it, will bring fortune to his family and to himself, and if she is female, she will be intelligent, favoured among men. And Allah will make it known. (illustration of a barking dog)

14. When the Moon lodges in al-Simak, then make in it talismans of enmity and ( ) and lethal poisons, and do not marry. Whatever male or female is born in it, they will be unfortunate and of bad conduct, slandered in their action. And do not approach kings in it. And Allah will make it known. (illustration of two fish).
Aristotle said: I found in the Hidden Book on the course of the moon in its mansions in the zodiac, matters concerning the government of man himself in his conduct and his affairs together with the technique of nairanjât and their effects. And we describe them in their proper places and context, so that there might be one perfect system and nothing should be found wanting.

Hermes said that the mansions of the moon are twenty-eight, and the stay of the moon in each mansion is twenty-four hours, and that is the completion of a day and a night. If the moon lodges in Sharţain (this is fiery, a malefic, hit by a benefic), then make in it nairanjât for love and affection towards women in particular, and do not put on new clothes on this day. For whoever puts them on when the moon is in this mansion, runs the risk of injury from which he will die, or whoever does this will be close to death. And do not enter the presence of kings on this day, and do not try to seek their patronage, and do not make contact with them. For whoever makes contact with them on this day, will be punished and killed as soon as he makes contact, and whoever calls on them will arouse against himself the spirit of anger in their hearts, and whoever seeks their patronage, will not be lucky with them, and they will quickly bring the harm of punishment to him.

He said: If anyone marries on this day, the wife will be loved by the husband, and the husband by the wife, and they will fulfil each other. And buy slaves and riding animals and women and cows and plant trees on this day and build houses, for the outcome of all this will be entirely praiseworthy. But do not seek to make friends on this day with anyone from whom you seek a lasting intimacy, for those who love will not be lucky. Do not establish anything on a day like this, and do not buy any stored goods for trade, for that will be unfortunate in its outcome. And do not use any spiritual cures or medicine, and do not travel on this day. Do not sow and do not make amulets or invocations on it. Do not practise the Art nor any of its effects on it.

He said: Whoever is born on this day, if he is male, he is wicked, immoral and a spendthrift, and he will not be praised for anything. If the child is female, she is immoral, concealing her dissolute life, a favourite among men, and desirous of them.

(2) Al-Buţain (fortunate, hot and dry). When the moon lodges in it, then make in it nairanjât for affection and love towards kings and the common people and any man you wish, but certainly not towards women. Make amulets in it and the four liberating nairanjât found in the large book al-Istamâkhîs, and practise the Art and invoke the spiritual force in it. Approach kings in it and do not hesitate to ask for their patronage and make contact in it with the brethren, and begin a friendship between them and yourself.

He said: Do not marry in it, and do not buy slaves or any live animal which you wish to keep, and do not buy in it anything for trade, for you will not be able to get rid of it. Do not put on new clothing, for whoever does this will risk being killed on that day. Sow in it, but do not measure your crops. For if anyone measures his crops in it, destruction and ruin will come to them quickly.
Whoever is born on that day, if he is male he will be good, pious, able to keep secrets, praised for his conduct and good in his way of life. If the child is female, she will be immoral, dishonoured, evil in her conduct and hated among men.

(The italicized passages correspond to the predictions in the Greek text on the lunar mansions in Oxford, MS Cromwell 12, edited by S. Weinstock in Catalogus Codicum Astrologorum Graecorum, IX.1 (Brussels, 1951), pp. 141-56.)
The Lunar Mansions; MS Oxford, Bodleian Library, Oriental 133, fol. 27v. [see p.84]
In considering the translating activity in respect of Islamic Spain I shall mainly be looking at Islamic Spain from beyond its borders. Adventurers and scholars were attracted to al-Andalus because of the splendour of Islamic culture and the superiority of Arabic learning. The spoil of the Christian reconquest was not only silks and damask, but also valuable manuscripts. Refugees from Muslim-dominated areas and the intelligentsia who remained in cities reconquered by the Christians were able to impart to those who had been educated in Latin schools the scientific knowledge of a superior culture and to act as interpreters of Arabic texts. Important, too, were the Jewish communities in al-Andalus which absorbed much of Arabic scientific culture and remained largely undisturbed after the Christian reconquest.

Translation, of course, had been taking place at all levels of society within Islamic Spain. The community was multilingual. The official language of the government and of higher education was the literary Arabic of the Quran. Occasionally the colloquial Arabic would be written down—for example, in the poetic form known as the zajal. However, the majority of the populace spoke a Romance language. This is apparent in another poetic form which originated in Spain—the muwashshah—in which the refrain (khurja) is sometimes in a Romance dialect. This refrain is usually sung by a girl: it is significant that the vernacular should be regarded as appropriate to wives and daughters. Another vernacular was the dialect (or rather, dialects) of the Berbers who had come across the Straits of Gibraltar in large numbers with their Arabic leaders. Berber words occur in surprising places, such as in the names of one set of the sixteen figures used in the form of divination called "geomancy", and in the earliest European names for the "Arabic" numerals. Beside Arabic, Latin continued in use as the language of the Church. Many educated Christians, however, adopted the literary language of the Muslims, and incurred disfavour for doing so from the more fanatical of their brethren. Finally the Jewish population still used Hebrew alongside Arabic. Having no special regard for the Arabic of the Quran, they wrote Arabic as they spoke it (while using the Hebrew script), so giving further evidence of the dialect of Arabic used in al-Andalus. The Christian, Jewish and Islamic societies were largely self-governing and had their own laws and judges. However, on many occasions there must have been a need for interpreters. At least one judge for the Christian community in Córdoba also served as their interpreter.
This multilingual society was inherited by the Christian rulers of Spain. One can see this by the number of legal documents in which both Arabic and Latin occur, the Arabic often being a translation or summary of the Latin text for the benefit of an Arabic-speaking plaintiff or defendant. Interpreters would have been present at the proceedings. Sometimes they translated the Latin into the Romance vernacular which would have been understood by both parties. For example, at the end of a Latin act issued by the archbishop of Toledo in 1178, there is a note in Arabic indicating that “Jalid ben Solaiman ben Gasan ben Servando” and “Domingo Salwat” had heard the archdeacon repeat in “Roman” the text of the act. The Muslim community (Mudejars) would continue to use Arabic script even when the Romance language became their mother tongue, so producing the literature known as aljami.

Under Islamic domination several Latin texts were translated into Arabic, including a book on agriculture by Columella, a history by Orosius, a “Roman book” on astrology, and (apparently) Isidore’s *Etymologies*. Christians were responsible for making some of these translations, and a large number of works were translated into Arabic specifically for the ‘Arabicised’ element of the Christian community (though not exclusively, for Muslim scholars also refer to these texts). At least three versions of the Psalms were made, including a verse translation completed by Ḥafṣ al-Qūṭi in 276/889, which was specifically meant to replace the inelegant prose version in circulation at the time. A church calendar was translated and combined with a distinctly Arabic division of the year based on the rising of twenty-eight constellations known as the “lunar mansions”, resulting in the *Calendar of Córdoba* (357/967). Arabicised Christians (called Mozarabs by other Christians) continued to use Arabic under Christian domination and even into the 14th century. This is evident from the number of Latin manuscripts, mainly of Christian content, with Arabic translations or glosses in them. The well-known Arabic-Latin/Latin-Arabic Leiden glossary was most likely written to enable a community whose first literary language was Arabic to understand the Latin rite of the Roman church.

Occasionally Arabic glosses appear in scientific and philosophical works; for example, in a copy of the medical encyclopaedia of Oribasius which was in the cathedral library of Chartres in the Middle Ages, and an 11th-century manuscript of Boethius’s *On Arithmetic* in the monastery of Ripoll in Catalonia. This is significant, for Boethius’s work was the most advanced text on arithmetic before the advent of Arabic learning, and Ripoll was the earliest centre outside al-Andalus to show the influence of this learning. The Mozarab (as he must have been) who wrote Arabic equivalents to Boethius’s definitions of the five species of inequality in that Ripoll manuscript was familiar with the technical terms of Arabic mathematics. It was men such as these who would have been conduits through which Arabic cul-
ture reached the rest of Europe. The transmission of this culture and the information that it imparted concerning Islamic Spain will be the focus of our attention in this article.

II

Before the days of mass education and universal literacy the ability to read and the possession of magical powers often merged in the popular imagination. If the books were not directly concerned with the truths of religion, then the gift of understanding them was thought to be due to the inspiration of demons. Scholars who dealt with Islamic science were regarded with particular suspicion. Gerbert d'Aurillac, one of the first Latin scholars to enquire about Arabic science, according to a story current in the early 13th century, "was the best necromancer in France, whom the demons of the air readily obeyed in all that he required of them by day and night, because of the great sacrifices he offered them."14 These demons taught him how to use an astrolabe.

But to a certain extent the scholars themselves fitted this popular image. In our first encounters with the transmission of Arabic science we find the exact sciences inextricably mixed up with astrology and magic and their transmission hedged with language redolent of a mystery religion. The same scholar would see nothing incongruous in solving a quadratic equation one moment and predicting from the stars whether a man might be killed by falling masonry the next: he might even make a talisman to prevent such a contingency. Thus Adelard of Bath, the early 12th-century English Arabist, translated the raw materials of mathematics—Euclid's *Elements* and al-Khwārizmi's astronomical tables—and also provided versions of an introduction to astrology, a set of astrological aphorisms and a work on making talismans which includes prayers to mice, bidding them to leave a property, and a method for driving scorpions out of his city of Bath.15

When we turn to the situation in al-Andalus we find scholars associated with both the exact sciences and magic. One of these was Adelard's main authority for the astrolabe, Maslama al-Majriṭi (ca. 400/1000). It was his revision of the tables of al-Khwārizmi for the meridian of Córdoba that Adelard had translated, and his text on the astrolabe on whose Latin translation Adelard based his own work *On how to use the Astrolabe*. Yet, from an early date, a comprehensive text on magic (*Ghāyat al-ḥakīm*) and another on alchemy (*Ruṭbat al-ḥakīm*) were ascribed to Maslama. Moreover Maslama introduced to al-Andalus the *Letters of the Brethren of Purity* which are heavily imbued with neo-Platonic and Hermetic religio-philosophical ideas, and imply a kind of intellectual brotherhood.16

The earliest translations from Arabic are in the fields of divination and astrology and those parts of mathematics which prepare the student for these
subjects, such as geometry and astronomy. Western visitors to Muslim towns may have come across crude versions of these techniques. Michael Scot refers to skilled women in the streets and alleys of Tunis who invite newly arrived merchants to ask about their situation, their families and the outcome of their business dealings. Adelard of Bath and his “nephew” had spent a few days with an old sorceress (anus praestigiosa) learning how to perform incantations. Others may have been shown or offered an astrolabe. If the “Carolingian” astrolabe described by Destombes is genuine, the artefact may have paved the way for the Latin texts describing its construction and use.

Divinatory techniques could have been picked up from Arabs by example rather than through texts. For instance, one could learn how to cast lines of dots randomly on the ground and join them together in pairs in order to form the figures used in “the science of the sand”, which became known by the literary Latin term “geomancy”. Or one could learn how to turn the letters of the names of each of two protagonists in a battle or a contest into numbers, to determine which of them would win. Or one could learn how to find out hidden things or predict the future by observing various marks on the shoulder-blade of a sheep which had been slaughtered and boiled until the flesh had fallen from the bone. Most of these techniques could be learnt with the aid of a good memory or, at most, a sheet of parchment giving the names and meanings of the sixteen geomantic figures, a list of the number-letter equivalents, or a plan of the shoulder-blade with the significations of each of its areas written in.

At some stage, however, more detailed explanations were written down. Our earliest Latin text containing information from Arabic sources happens to be of this kind. It was written in the late 10th century, and is known variously as Liber Alchandrei, Mathematica Alhandrei summi astrologi, and Mathematica Alexandri summi astrologi—all these names implying some connection with Alexander the Great of Macedon. A large part of this text consists of “interrogations” posed by the client and “judgements” given by the astrologer on matters of every-day concern, such as marriage, business dealings, the sex of one’s unborn child and the outcome of an illness. The judgement is found by applying to the celestial “places” a number derived from the names of the client and of his mother. This form of judgement is distinctly Arabic, and survives to this day in North Africa. The Arabic origin of the text is made explicit by references to “Saraceni” and “the Arabic language”. The text includes the earliest Latin form of twenty-eight lunar mansions whose appearance in the Calendar of Córdoba has already been mentioned. In fact, the two texts may be contemporary. The Liber Alchandrei recalls the polyglot atmosphere of the capital of al-Andalus, for it includes, alongside Arabic names for the zodiac signs and the planets, Hebrew names for the same terms and for the letters in which the names of the client and his mother must be written, and a letter of Petosiris to Nechepso which
was probably translated from Greek in the late Classical period and part of
the surviving Latin culture in Spain.

The earliest manuscript of the Liber Alchandrei closes with several circu-
lar diagrams which show the names of the twenty-eight lunar mansions, their
constellations and the number-letter equivalents used in making astrological
judgements. The numbers here are written in Roman numerals, but in an
Italian manuscript of medical works similar circular diagrams are filled with
the forms of Arabic numerals which are found on the counters of the abacus
associated with Gerbert d'Aurillac. Richard Lemay has pointed out that
Arabic numerals (which technically should be called "Indian" numerals, and
were so called by the Arabs) were used in very restricted contexts in the
Islamic world in the Middle Ages. One of these contexts was precisely the
form of divination in which numbers were substituted for letters. The
Western equivalents of the "Indian" numerals are the ghubār ("dust")
numerals which appear to have originated in Spain since the forms of 5, 6,
and 8 are derivable from Visigothic script. Ibn Khaldūn in the 8th/14th cen-
tury states that the "ghubār letters" are used for the za'iraja, or magical circle
made up of all kinds of letters and numbers. There is, on the other hand, no
evidence that Arabic merchants or administrators in Spain made use of ghubār
numerals. It is possible that Gerbert, or one of his followers, got the idea of
marking the abacus counters with Arabic numerals from a magical or divina-
tory context in which numbers were used as ciphers, as they are in the Latin
medical manuscript.

The earliest Latin texts on the abacus do not depend on Arabic texts, but
the names of the nine different counters which represented the nine digits
appear to be Arabic and Berber words for the numerals in distorted forms
which suggest an oral transmission. This Gerbertian abacus was popular
throughout Western Europe during the 11th and early 12th century. It was a
teaching tool, enabling students to see how numbers functioned. It was
impractical as a calculating instrument for real-life transactions, and was
probably never used as such. It was the means, however, by which many
European scholars first became aware of Arabic ghubār numerals and some
of their Arabic names, and, at least for the Abbot of Malmesbury, the instru-
ment itself had been "snatched from the Saracens".

Towards the middle of the 6th/12th century the abacus began to be
replaced by a method of calculation with Arabic numerals not marked on
counters but written directly on a board thinly covered with sand, or on parch-
ment. This was the algorism, in which the same Arabic ghubār numerals
were used, and which had been taken, along with the method of calculation,
from a single text by al-Khwārizmi—his On Indian Calculation. Arabic
numerals did not cease to have a magical aura; in fact they continued for
some centuries to be regarded as a secret code and edicts proscribing their
use were promulgated in several cities.
The introduction of the algorism is symptomatic of the change in the process of transmission of Arabic science in the 6th/12th century. The transmission acquires a firm literary basis. This is hinted at in the injunction of Ibn ‘Abdūn, the jurist writing in Seville in the early years of the century, who forbids the selling of books to Jews and Christians, because they translate them and pass them off as their own compositions.34

III

One of the earliest of these translators was Hugo of Santana working in the 12th century in Aragon. He dedicated all the works that have dedications to Michael, bishop of Tarazona from the time of its reconquest (513/1119) until 1151. A near Arabic neighbour of bishop Michael was the last of the Banū Hūd dynasty of Saragossa, Sayf al-Dawla. After the fall of Saragossa to the Christians in 512/1118 the Banū Hūd took up residence in Rueda de Jalón, some 55 kilometres from Tarazona. Sayf al-Dawla himself established quite friendly relations with the king of Aragon, Alfonso VII, whose coronation as Emperor he attended. In 534/1140 or 535/1141 he was obliged to relinquish Rueda de Jalón in exchange for some lands near Toledo.35 What is interesting is that he had a library from which bishop Michael was able to choose some works for Hugo to translate.36

The Banū Hūd had a reputation for their patronage of learning. Both the botanist Ibn Biklarish and the philosopher Ibn Bāijja (Avempace) were in Saragossa. Two members of the dynasty themselves achieved reputations for their remarkable mathematical talents: Aḥmad al-Muqtadir bi-llāh (who ruled from 438/1046 to 474/1081) and his son Yūsuf al-Mu’taman b. Hūd (474/1081-478/1085).37 The latter composed a truly comprehensive book on geometry known as “The Perfection” (Al-İstıkmāl), which drew on a large number of sources, including Euclid’s Elements and Data, the Spherics of Theodosius and Menelaus, the Conics of Apollonius, Archimedes’ On the Sphere and Cylinder, Eutocius’s commentary on this work, Thābit b. Qurra’s treatise on amicable numbers and Ibn al-Haytham’s Optics. Probably during the reign of Aḥmad al-Muqtadir bi-llāh, whose renown extended to astronomy and philosophy, a pupil of Maslama al-Majriti called al-Kirmānī (died 457/1065) introduced the Letters of the Brethren of Purity into Saragossa.38 Perhaps he too brought Maslama’s revision of the tables of al-Khwārizmi from Córdoba to Saragossa, for the lunar visibility tables that survive in Latin only have been recomputed for a latitude which is that of Saragossa.39

Some idea of which texts remained in the library of the Banū Hūd when they moved to Rueda de Jalón can be gauged from the evidence of Hugo’s translations. In only one preface does he mention this library (armarium Rotense), but that is precisely his preface to a commentary on the tables of
al-Khwārizmi which must have been known in Saragossa (it was also translated by Abraham b. Ezra, a Jewish scholar from neighbouring Tudela). Hugo goes on to write that the manuscript was found “among the more secret depths of the library” (inter secretiora bibliotece penetralia). This suggests a part of the library specially designated for the non-Muslim sciences and magic. One hundred years later the French bibliophile, Richard of Fournival, “kept his ‘secret texts’ (tractatus secreti) on astrology, alchemy, and magic in a separate room to which, he claims, only he had access”. Hugo certainly wishes to foster the impression that he is passing on secret knowledge which must not be divulged to other than worthy individuals.

Like his predecessor in Southern Italy, the translator Constantine of Africa, Hugo subsumes his Arabic author’s preface into his own preface, so that it is sometimes difficult to distinguish the words of his source from his own words, where the Arabic origin is unavailable for comparison. But it is apparent that he is in agreement with the tone of his Arabic authors. In the preface to a large book on horoscopic astrology Hugo, following his source, lists some 125 astrological books, whose gist is preserved in two comprehensive volumes. These, we read, “were placed in the hands of a certain wise and most dependable man (for no access to them was allowed to any unworthy or foolish person); thus neither the translation of these books nor their teaching is further granted either to us or to anyone of this generation except to one who is endowed with complete honesty and philosophical understanding”. These are the books whose secret the Arabic author unlocks and Hugo, in turn, reveals to the Latin world.

In his preface to Pseudo-Ptolemy’s Centiloquium (astrological aphorisms), Hugo exhorts Michael “not to commit the secrets of such wisdom (tante sapiencie archana) into the hands of any unworthy individual, or to allow anyone to share in the secrets who rejoices in the number of his books rather than delights in their teaching”. Again, in another preface, he says he has tried to find amongst the Arabs the four species of divination mentioned (and, incidentally, condemned) by Isidore of Seville: divination respectively by earth, water, air and fire. In encountering the Arabic “science of the sand” he thought he had discovered Isidore’s geomancy (“earth-divination”), and he promises to find and to translate texts on the the other “mancies”. But secrets could also be found in the shoulder-blades of sheep for (as we read in Hugo’s preface to one of his two translations of an Arabic text on scapulimancy—a preface which incorporates Arabic material) “the rain brings down the secret (archanum) of God’s teaching and an interior power into the very plants and herbs of the earth, like the manna of God’s own grace and wisdom, and this secret is transferred to the shoulder-blades of the sheep eating this grass”.

Hugo’s interest in secrets and “mancies” suggests more than idle curiosity; he seems to believe (or at least acquiesce to beliefs stated in his sources)
in the secret society of an intellectual élite. This belief is most fully stated in the preface to the text on geomancy where we read:

God the Creator of things, who founded everything as a new creation without an exemplar, deciding in his mind about the future state of things before their actual coming-into-being, distributes to each man as He wishes what He thinks it right to bestow upon the rational creature from the treasury of His whole being. Hence all created beings, whether rational or irrational or inanimate, show the same obedience to Him, and, although in their lives they have descended to the rank of mortal beings, they venerate Him as a result of unity alone. Holding all things in the form of images before they come into being, He pours a kind of intuitive and intellectual notion of them into the secret place [arcanum] of men’s hearts.

Eventually such a state of creation comes into being that God is able to associate by a kind of bond the foremost and most venerable teachers ... so that all discord having been put aside, the rational or "positive justice" can join them together through an equable bond. 

The high-flown language is difficult to follow, but we have here a picture of a special bond between men who have been privileged to receive God’s gift of intuitive knowledge. This bond which produces a state of peace in human society is parallel to the bonds which govern and preserve the universe. It is to this latter topic that Hugo’s most interesting translation is devoted. This is the Secret of Creation of Pseudo-Apollonius, which purports to be Hermes Trismegistus’s account of God’s creation of the world, and of the origins of minerals, plants, animals and men. Throughout the work there is an emphasis on the idea of an underlying unity in nature and of bonds connecting every level of creation. For all things derive from one substance and one seed. This philosophy is epitomised in the document known as the Emerald Tablet which became the credo of the alchemists and of which the earliest known Latin version is within Hugo’s translation of the Secret of Creation.

Hugo’s text is closest to an Arabic manuscript copied in 485/1092, another Arabic copy of which is still in Spain. We have no independent Arabic testimony that the Secret of Creation was in the library of the Banū Ḥūd, but it is worth noting that the text comes from the same milieu and shares some of the same Hermetic and neo-Platonic sources as the Letters of the Brethren of Purity which were in Saragossa. In turn, we have no translation of the Letters attributed to Hugo. However, there are anonymous Latin translations of at least two of these letters, and further evidence may eventually be found of their influence on Latin scholars in the North of Spain.

Not far from Tarazona was Tudela on the river Ebro. This town had important Jewish and Muslim communities and was the home of the Jewish scholars Abraham b. Ezra (1086-1164) and Judah Halevi (d. 1141). The translators Hermann of Carinthia and Robert of Ketton are said to have been
working in the region of the Ebro in 1141, and could well have been in Tudela; Robert was later canon of the church there. Hermann knew several of the same sources as Hugo, and perhaps also had access to the library of the Banū Hūd. For he knows the works of Theodosius and Archimedes, and made versions of Euclid’s *Elements* and al-Khwārizmi’s astronomical tables, all of which were apparently in the Banū Hūd’s possession. In his major original work, the cosmogony called *On the Essences* (*De essentiis*), Hermann cites the Emerald Tablet from the *Secret of Creation* (he is the only Latin scholar besides Hugo who appears to know the latter work), and refers to several other Hermetic works. However, in the preface to *On the Essences*, which is addressed to Robert, he makes a significant contrast between the “secrets” (*secreta*) and the “public schools”. Robert and he have been labouring together night and day on the “intimate treasures of the Arabs” (*intimi Arabum thesauri*) in the “inner sanctuaries of Minerva” (*adyta Minerve*), and Hermann is now considering whether it is appropriate to make the fruits of their research public. He is afraid of committing the crime of Numenius, who divulged the Eleusinian mysteries and consequently saw the Eleusinian goddesses in a dream dressed as prostitutes available for use to all and sundry. In Hermann’s case the Goddess Minerva reassures him—also in a dream—that her attributes are not diminished by being made freely available and should be given out liberally.

Whether Hermann’s decision to make public the secrets of Arabic science represents a change of policy from that of Hugo depends on how much trust we place in the literary style adopted in these translators’ prefaces. It is a fact that Hugo’s translations had a very limited diffusion. Hermann and Robert, on the other hand, advertised their work to the highest European authorities of the time. Robert promises to Peter the Venerable, abbot of Cluny, who was responsible for promoting the Cluniac reform of the Christian church in Spain, “a celestial gift which embraces within itself the whole of science”—i.e., a work on astronomy, whereas Hermann sent one of his translations (that of Ptolemy’s *Planisphere*) to Thierry of Chartres, the foremost educator in France of the second quarter of the 12th century. In the preface to this translation Hermann sketches a history of astronomy, refers to the basic textbooks on the subject, and advertises three of his own works, and one of Robert’s. Thierry was engaged in compiling an annotated “library” of texts on the seven liberal arts, and included two translations from Arabic, which may be in Robert and Hermann’s versions.

A decade or two after Robert and Hermann’s project to translate and send to France texts on geometry and astronomy, an even more comprehensive programme of translations was planned and undertaken, this time in Toledo. The motive force for this programme seems to have been an archdeacon resident in Toledo called Dominicus Gundissalinus. Perhaps in reaction to the idea of a secret intellectual élite, Dominicus considers that it is no longer
possible to be a sage (sapiens); one can only aspire to be proficient in certain sciences, or at least to know something about a few of them.\textsuperscript{58} To facilitate this he describes each of the sciences in turn in his \textit{On the Sciences}, drawing largely on the translation of \textit{al-Fārābī’s Classification of the Sciences} made by Gerard of Cremona.

It is reasonably certain now that Gerard of Cremona worked closely with Dominicus. He is probably to be identified with a “Girardus” described as a deacon in a document of the Cathedral of Toledo of 11 March 1162, and as “Girardus called master” (\textit{Girardus dictus magister}) in two later documents of the Cathedral (March 1174 and March 1176). All three documents are also signed by Dominicus.\textsuperscript{59} \textit{Al- Fārābī’s Classification of the Sciences} provided a template for Gerard on which to pattern the programme of his own translations, several of which were used in turn by Dominicus when he adapted \textit{al-Fārābī’s text into a comprehensive account of philosophy and its parts—On the Division of Philosophy—patterned on schemata developed by Thierry of Chartres and his pupils}.\textsuperscript{60} With Dominicus and Gerard of Cremona we see not only a high public profile given to translations from Arabic, but also an expansion of the range of texts into medicine and philosophy. Gerard translated several of Aristotle’s works and some commentaries on Aristotle by Arabic authors or Greek commentators whose work had been translated into Arabic.\textsuperscript{61} On the other hand, Dominicus and his associates Avendauth and Johannes Hispanus translated the works of Arab and Jewish scholars who had summarised and reinterpreted Aristotle’s philosophy in the light of neo-Platonic trends—i.e., Ibn Sinā, Ibn Gabirol and al-Ghazālī.\textsuperscript{62}

The advertisements of Robert of Ketton and Hermann of Carinthia were clearly effective. John of Salisbury regarded the Arabs as being more advanced than the Latins in geometry and astronomy.\textsuperscript{63} Toledo was the natural place where this Arabic learning could be found. Gerard of Cremona had been attracted to Toledo because of his desire for Ptolemy’s \textit{Almagest}, the 2nd-century A.D. textbook on astronomy. Another scholar, Daniel of Morley, tells a more detailed story about how he came to Toledo. He had at first left England to seek learning in Paris, but, disappointed by what he found there and hearing that “the learning of the Arabs” (\textit{doctrina Arabum}), which consisted almost entirely of the scientific works he was interested in, was in vogue in Toledo, he hurried there, and was not disappointed. He recounts a lecture given by Gerard, on astrology.\textsuperscript{64}

Gerard of Cremona died in 1187. At his death his pupils (\textit{socii}) drew up a list of his many translations from Arabic, since he had been too humble to put his name to many of them.\textsuperscript{65} These \textit{socii} could have included Dominicus and Johannes Hispanus, for the former was still alive in 1181 (and there is no evidence that he died soon after this), and the latter lived until 1215.
The 7th/13th century witnessed a continuation of the translating activity. Two conspicuous elements about this activity should be noted: first, the transmission of the results of the last flowering of philosophy in Islamic Spain; and second, the rise of “official translation”, i.e., translation as part of public policy, either to aggrandise the newly emerging Spanish nation, or to convert the Muslim.

To turn to the first of these: Under the Almohads there occurred an Indian summer for philosophy in Islamic Spain. This took the form of a burst of “fundamentalist” Aristotelianism unparalleled elsewhere in the Arabic word. The central figure is Ibn Ṭufayl (d. 581/1185), the court physician of the Almohad leader in Córdoba and the composer of the philosophical novel Hayy b. Yaqẓān—the story of an orphan on a desert island who discovers the truths of philosophy and religion entirely by a process of deduction. Ibn Ṭufayl had introduced to the Almohad ruler the philosopher Ibn Rushd (Averroes, d. 594/1198), and inspired al-Bītrūjī (Alpetragius) to write his book on astronomy. This book, On the Movements of the Heavens (written ca. 600/1200), was a revolutionary attempt to replace Ptolemy’s astronomical system with a model which was compatible with Aristotelian physics. Averroes in his turn undertook the most ambitious project ever conceived for interpreting Aristotle: three levels of commentaries for the whole of Aristotle’s works, to which a commentary on Plato’s Republic was added. These consisted of: a) summaries of the texts; b) paraphrases; and c) line by line exegeses.

Andalusi Aristotelianism appears to have had little influence on subsequent Arabic scholarship. Its influence on Latin and Hebrew philosophy and science was, on the other hand, immense. It was in this intellectual climate at Córdoba that the philosophy of Maimonides (d. 600/1204) was formed. And within a few years of their composition the works of both al-Bītrūjī and Ibn Rushd were being translated into Latin and Hebrew. The first translations were made in Spain. Michael Scot translated On the Movements of the Heavens in Toledo in 1217, five years after the defeat of the Almohads in the battle of Las Navas de Tolosa. To Michael Scot are also attributed the earliest translations of Averroes, which he probably began in Spain, and continued when he moved to Italy in the 1220s.

The radical nature of this new Aristotelianism and its origin in Spain is indicated by the extreme reaction that it provoked in Paris—in particular, the prohibition promulgated in the University of Paris in 1215 against Aristotle’s works on metaphysics and natural science, the summae of these works (i.e., presumably, the works of Avicenna and Averroes) and the writings of “Mauritius Hispanus”, amongst others. The most plausible explanation of the identity of the latter is that he is Mauritius, archdeacon of Toledo, who sponsored translations of other texts of the Almohads, as we shall see.
The continuation of interest in Aristotelianism in Christian Spain in the 13th century has not yet been explored by scholars, but is evident from the following facts: Alvaro of Toledo (floruit 1267 until after 1286) copied out Michael Scot’s translation of al-Bitrusi’s *On the Movements of the Heavens* and wrote a commentary on Averroës’ *On the Substance of the Globe*. He dedicated the latter to the Archbishop of Toledo, Gonzalo García Gudiel, who himself had collected several manuscripts of the works of Aristotle, Avicenna and Averroës by 1273. The archbishop commissioned a translation of those books on natural science in Avicenna’s *Shifā'* which had not been translated by Dominicus Gundissalinus.

With García Gudiel we come to the very end of the 13th century. If we retrace our steps we can follow the course of “official translations” through the century. The battle of Las Navas de Tolosa (609/1212) and the subsequent capture of Seville and Córdoba, leaving as the only Islamic kingdom in Spain the vassal state of Granada, gave the Christian bishops and kings a great feeling of confidence. We see at least one archbishop and two kings who produce texts in their own names to further the Hispanicisation and Christianisation of the Iberian Peninsula.

Rodrigo Jiménez de Rada, Archbishop of Toledo from 1210 to 1247, wrote the *Historia Gothica* and the *Historia Arabum*, both of which rely heavily on Arabic sources. A canon in his cathedral called Mark was asked by his archdeacon, Mauritius (mentioned above), to translate the Quran and the Profession of Faith of the founder of the Almohad movement. James the Conqueror, king of Catalonia (d. 1276) was more a warrior than a cultural hero, and added Valencia, Murcia and the Balearic Islands to the kingdom of Catalonia. But he also wrote a unique biography, in Catalan—the *Llibre dels feys*—and set up a school for training missionaries.

The most remarkable instance, however, is of course that of Alfonso X, “el Sabio”, king of León and Castile from 1252 until 1284. His nationalism is evident in his great law-codes and histories (of Spain and of the world), which build on the earlier histories of Rodrigo Jiménez and even on the Islamic literature translated by Hermann of Carinthia and Robert of Ketton. Above all, it is evidenced by the fact that he chose to use Castilian as the literary language of his court. He was not so interested in Aristotle, but sponsored the translation of texts on magic, the science of the stars, entertaining stories, and games (including chess, draughts and backgammon). Not only was the language of these translations Spanish, but also he made it seem that the authors themselves were Spanish, calling for example the author of the *Ghayat al-hakim*, “Picatrix Hispanus”. Of course, in a way, they were. The author of *Ghayat al-hakim*, though not Maslama al-Majriti himself, lived in al-Andalus in the 5th/11th century. One or two of the texts on the science of the stars appear to have been written by the translators themselves. The
absence of any Muslim involvement in the translations is notable. Most of Alfonso's translators were Jews, and those who were not Jews were Christians who sometimes translated the Castilian text into Latin.

VI

What could Europeans learn of Islamic Spain from these translations? It must be said, first of all, that works on philosophy and the exact sciences are not likely to give much information about the society in which they were written. However, an informative introduction to the Islamic religion itself could be gained from reading the texts that Peter the Venerable commissioned in the 1140s from Hermann of Carinthia, Robert of Ketton and Peter of Toledo. These were all translations of Arabic texts on Islam, and included the Quran, a life of Muhammad, a history of the world from the Islamic point of view from the Creation to the time of the Prophet, an account of the early caliphs, and a debate between a Muslim and a Christian.79

For all the extremely negative attitude towards Islam shown by Robert of Ketton in his prefaces, the translations themselves are quite faithful to their originals. Peter the Venerable had attached to his team of translators a Muslim called Muhammad, presumably to help in matters of doctrine. The translator of the debate between the Muslim and the Christian (the Apology of al-Kindi), even left in a sentence in which the caliph al-Ma'mun, the judge of the debate, comes down in favour of the Muslim.80 He considered Christianity to be a religion for enjoying life in the world to come, whereas Islam enabled one to enjoy both this world and the next. Unfortunately an early editor of the Latin text erased this approbation of Islam which, consequently, is not found in later manuscripts. Nevertheless the "Toledan collection", as the works commissioned by Peter the Venerable are called, remained a valuable dossier for Westerners wishing to understand Islam. In the 17th century Robert of Ketton's translation of the Quran was still being used by Christian missionaries, and the Apology of al-Kindi has become popular in modern times at the interface of Islam and Christianity in North Africa.81

Other sources for gaining knowledge of Spanish Islamic society are the works of astrology and divination. Richard Lemay has pointed out that in some manuscripts of John of Seville's translation (529/1135) of Abū Ma'shar's *Greater Introduction to Astrology (235/849) there are annotations explaining some of the terms used, including: "Note that Abū Ma'shar calls 'aldea' the habitations (villulae) in which the more noble of the Arabs dwell, i.e., the places of tents, since noble Arabs always dwell in tents and not in cities"; the same annotator interprets "cities and halls" (civitates et aulas) as alcasares (the Spanish word from al-qaṣr, "castle").82

Associated with astronomical tables in two manuscripts of the 6th/12th century is a bilingual Arabic-Latin fortune-telling table which indicates the
activity someone should be engaging in depending on the sign of the zodiac in which each of the planets is situated. The activities are all pleasant and presumably recall the recreations of a leisured inhabitant of al-Andalus: e.g., hearing or playing musical instruments (including the rabâb, the shawm, the horn, various kinds of drum, and singing), riding through beautiful places, resting in the shade, buying or building a house or guest-quarters, decorating a reception room, buying slippers, smelling roses or irises, entering a bath, wearing multi-coloured clothing or silks or brocade or a long-sleeved gown, hunting ducks or hares and hunting with a falcon, playing with a girl, drinking by a river (either grape-wine—khāmr, or date-wine—nabīdī), and finally eating all kinds of delicious food. These include lamb, chicken, a young dove, partridges, thrushes, dates, a pie made of borage, a cake (halwā), aubergines, artichokes, dill, tafāyā (interpreted in Latin as “meat with coriander”) and mushrooms.

Other astrological works refer to the best time to learn to play the “lyre” (presumably the ‘ūd), the drum (tanbūr) and trumpets, and give advice on digging irrigation ditches, which includes descriptions of the shadūf (translated as “stork” in Latin), the sāniya or “water scoop”, and the nāṭūra or water-wheel:

In digging beds for irrigation channels, let the Moon be in a good position ... [If all this is done] hindrance from digging the channel is avoided and the abundance and the salubrity of the water is assured ... In making certain machines which are accustomed to be used by certain peoples for drawing up water, and which, because of their appearance, they call in the vernacular [vulgari nomine] “storks”, let the Ascendent and the Cardines be firm ... For the manufacture of wheels which the Arabs call azeniae or annorae the aforesaid method for wells should be followed. Both machines are useful for drawing forth water for irrigating fields.

More immediately relevant to Islamic Spain are the texts on divination by sheeps’ shoulder-blades. These seem to have been elaborated on Spanish soil. For in both Arabic and Latin texts there are references to Córdoba, Saragossa and other capitals of the ṭā’īfa kingdoms of al-Andalus. In one Arabic text the two main divisions of the Arabs in Spain—the family of Fihr and the family of Marwān—are mentioned. In both an Arabic and a Latin text the tribal divisions of the Berbers—the Butr and Barānis—are also named. The texts give intimate details of family life, indicating whether the husband will dominate his wife or vice versa, how many servants there are in the house and whether they are black, Arabs or Christians, and have straight or curly hair.

Latin-reading Europeans, however, did not read these texts in order to find out more about Islamic Spain. They were interested in the texts for practical purposes or for making progress in mathematics or philosophy. The Arabs were not mere conduits of Ancient Greek learning. Admittedly, translators were searching out Ancient Greek works and occasionally complained
when they could only find an Arabic translation of a Greek work.\textsuperscript{88} Gerard of Cremona, Robert of Ketton and Hermann of Carinthia were all aiming for the \textit{Almagest} of Ptolemy, Constantine of Africa wanted to introduce to the Latins Galen and Hippocrates. But it was acknowledged that scholars writing in Arabic had developed, added to, or made more accessible, the texts of Antiquity. Understanding the \textit{Almagest} may have been the aim of every aspiring astronomer, but most scholars in the Middle Ages, including Dante, found it easier to use the shorter \textit{Elements of Astronomy} of al-Farghānī.\textsuperscript{89} Ptolemy’s \textit{Tetrabiblos} was regarded as the fountainhead of teaching on astrology; yet the works of Abū Ma’shar and al-Qabisi were much more frequently copied and cited.\textsuperscript{90} Avicenna’s \textit{ Sufficiency (Shifā’)}, as its title implied, provided a full curriculum in philosophy and, partly because it gave clear-cut answers rather than left questions hanging in the air, it was easier to manage than the several books of Aristotle’s philosophy and was consequently popular. Averroes, on the other hand, with his three tiers of commentary to each of Aristotle’s works, provided a thorough-going method for a detailed study of Aristotle and a model for Latin commentaries from the mid-7th/13th century onwards.\textsuperscript{91} A mark of his success is the fact that a far greater number of his commentaries survive in Latin than in the original Arabic.\textsuperscript{92}

The Arabs of the Middle Ages seem to have had a special flair for mathematics, and the Latin translations in this field provide only a dim reflection of the true splendour of the achievements of men like al-\textsuperscript{-}Mu’taman b. Hüd or Omar Khayyam.\textsuperscript{93} The translations did, however, introduce into the West calculation with Arabic numerals, algebra, trigonometry and advanced geometry. In medicine, above all, Arabic works held sway in the Middle Ages. One need only mention the names which became familiar in the Latin forms of Avicenna (this time as author of the \textit{Canon of Medicine}), Rhazes, Mesue, Isaac, and Abulcasim.\textsuperscript{94}

Most of these texts had originally been translated in Spain.\textsuperscript{95} Many of them had been written by Muslims (or, to a lesser extent, Christians or Jews) resident in Spain. We have already mentioned Maslama al-Majriti, al-Biṭrūji, Averroes, and Ibn Bajja, the last of whose views were known through the commentaries of Averroes. But there were others, such as ‘Arib b. Sa’d, who contributed to the composition of the \textit{Calendar of Córdoba}, Abraham bar Ḥiyya (d. c. 531/1136), the author of a book on trigonometry translated by Plato of Tivoli under the title \textit{Liber embadorum} (“Book of areas”),\textsuperscript{96} the 5th/11th-century mathematician and astronomer Ibn Mu‘adh of Jaén whose works on atmospheric refraction (\textit{De crepusculis}) and \textit{Tables of Jaén} were translated by Gerard of Cremona,\textsuperscript{97} and Ibn al-Zarqalluh whose astronomical tables composed for Toledo in ca. 462/1070 became the standard tables in use in Latin translation in the West between the late 12th and early 14th centuries.\textsuperscript{98} But Arabic texts also arrived in al-Andalus from the furthest parts of
the Islamic world, and this, in itself, testifies to the brilliance of the academic society in Islamic Spain. Adelard of Bath had regarded Arabic learning as synonymous with rational thought. What Hugo of Santalla said of his own subject would have been echoed by many of his fellow Latins concerning other subjects:

It befits us to imitate the Arabs especially, for they are as it were our teachers and precursors in this art.


4 Roger Wright, Late Latin and Early Romance, Liverpool, 1982, pp. 151-63.


6 Examples of documents in which Arabic and Latin occur can be found in F. J. Hernández, Los cartularios de Toledo, Madrid, 1985, plates 6, 7, 9, 11 and 13.


19 Marcel Destombes, "Un astrolabe carolingien et l'origine de nos chiffres arabes", Archives Internationales d'Histoire des Sciences, 58-59, 1962, pp. 3-45. The genuineness of this astrolabe has been discussed at a recent conference in Paris.


23 Millás Vallicrosa, Assaig, pp. 67-84; A. Van de Vyver, "Les plus anciennes traductions latines médiévales (Xe-Xie siècles) de traités d'astronomie et d'astrologie", Osiris, 1, 1936, pp. 666-84. This work should be viewed as part of the large body of apocryphal literature couched in the form of correspondence between Aristotle and his royal pupil Alexander the Great; see C. Burnett, "Arabic, Greek and Latin Works on Astrological Magic Attributed to Aristotle", in Pseudo-Aristotle in the Middle Ages, ed. Jill Kraye, W. F. Ryan and C. B. Schmitt, London, 1986, pp. 84-96.


25 Paris, Bibliothèque nationale, lat. 17868, fol. 16v. The diagrams are reproduced in E. Wickersheimer, "Figures médico-astrológiques des IXe, Xe et XIe siècles", Janus, 19, 1914, p. 175.

26 Rome, Biblioteca Alessandrina, MS l.f.18, N.171, fol. 3r, reproduced in M. Pasca (ed.), La scuola medica Salernitana, 1988, p. 53.

27 R. Lemay, "Arabic Numerals", in Dictionary of the Middle Ages, ed. J. R. Strayer, I, New York, 1982, p. 384: "the number of Arabic ... manuscripts that use the Hindu numerals for divination and for magic far exceeds those that deal seriously with mathematics proper".

28 Ibid., p. 385.


31 William, Abbot of Malmesbury, described Gerbert as "the first to snatch the abacus from the Saracens and give it rules for use"; N. Bubnov, Gerberti Opera Mathematica, Berlin, 1899, p. 387.


34 E. Lévi-Provençal and E. García Gómez, Sevilla a comienzos del siglo XII, Madrid, 1948, p. 173.


38 Veranet, op. cit., p. 32.

39 I owe this information to Dr Jan Hogendijk.


43 Prologue, sentences 42-43.

44 Haskins, op. cit., p. 70.

45 Preface to his Art of Geomancy, edited in Haskins, ibid., pp. 78-79.

46 Burnett, "Arabic Divination and Celtic Lore", p. 35.

47 Haskins, op. cit., p. 78.


50 For example, both cite the Hermetic book Kitāb al-ismā'ātīs and both have a detailed account of the development of the embryo according to the influence of the planets.


53 Haskins, op. cit., p. 55.


56 Ibid., pp. 6, 8-9.

57 Thierry’s collection of texts on the seven liberal arts, entitled Hepateuchon, is discussed in E. Jeanneau, “Note sur l’École de Chartres”, Studii Medievali, 3rd series, 5, 1964, pp. 821-65. The recent editors of the version of Euclid’s Elements in the Hepateuchon have proposed that it is by Robert (see H. L. L. Busard and M. Folkerts (eds.), The Latin Translation of Euclid’s Elements known as Version II (in press)), whereas the tables of al-Khwārizmī could be Hermann’s revision of Adelard’s version; see H. Suter, with A. Bjørnbo and R. Besthorn, Die astronomischen Tafeln des Muhammad ibn Mūsā al-Khwārizmī in der Bearbeitung des Maslama ibn Ahmad al-Majrīṭī und der lateinischen Übersetzung des Athelard von Bath, Copenhagen, 1914, p. xiii.


62 Jolivet, op. cit


64 G. Maurach (ed.), Daniel von Morley, Philosophia, in Mittel lateinisches Jahrbuch, 14, 1979, pp. 212 and 244-45.

65 The list has been printed several times and is most conveniently reproduced in E. Grant (ed.), A Source Book in Medieval Science, Cambridge (Mass.), 1974, pp. 35-38.


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73 It is debatable to what extent these men can be called the "authors" of the works published under their names. However, what is important is that they wanted it to be known that these texts were their own.
78 Thomann, "The name Picatrix".
79 D’Alverny, "Deux traductions latines du Coran au moyen âge".
80 Ibid., p. 95.
84 The activities are described in single words or short phrases consisting of a maṣdar construction in Arabic and an infinitive construction in Latin: "to eat a cake", "to hear a drum", "marriage", etc. Similar culinary ingredients can be found in the 7th/13th-century Andalusian cookery-book published by A. Huici Miranda, La cocina hispano-magrebí en la época almohade según un manuscrito andaluz, Madrid, 1965.
86 Oxford, Bodleian Library, MS Bodley 430, fol. 75rb.
87 Burnett, "Arabic Divination and Celtic Lore".
88 This was the case with Eugene of Palermo (6th/12th century) who was obliged to use the Arabic version of Ptolemy's Optics; see d’Alverny, "Translations and Translators". The Greek version has yet to be found.
89 The version of al-Farqānī used by Dante is edited by R. Campani, Città di Castello, 1910.
90 This is the case, for example, in the large-scale introduction to philosophy, the Liber Introductorius of Michael Scot.
91 D. A. Callus, "Introduction of Aristotelian Learning to Oxford", Proceedings of the British Academy, 29, 1943, shows how Latin commentators were influenced by the methodology of Avicenna and Averroes; see also J. Marenbon, Later Medieval Philosophy (1150-1350), London, 1987, pp. 50-62.
92 Rosemann, op. cit. Averroes' popularity continued into the Renaissance when several more of his works were translated into Latin: C. B. Schmitt, "Renaissance Averroism Studied through the Venetian Editions of Aristotle-Averroes", Convegno internazionale. L’Averroismo in Italia, Rome, 1979, pp. 121-42.
THE TRANSLATING ACTIVITY IN MEDIEVAL SPAIN

95 J. A. Sánchez Pérez, Biografias de Matemáticos Arabes que florecieron en España, Madrid, 1921.

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THE LEGEND OF THE THREE HERMES AND ABÛ MA'ASHAR'S KITĀB AL-ULUF
IN THE LATIN MIDDLE AGES

In 1968 the Warburg Institute published a full-scale study of the Kitāb al-Uluf of Abû Ma'shar Ja'far ibn Muhammad al-Balkhi.1 In this strange treatise of astrological history the legend of the three Hermes appears to have been first formulated: the first all-wise Hermes lived in Egypt before the flood, and is identical with Enoch; the second Hermes lived in Babylon and revived the sciences after the flood; the third Hermes is, once again, in Egypt. He taught alchemy and passed on his wisdom to Asclepius. This third Hermes corresponds to the Hermes of the Corpus Hermeticum.2

Three centuries after the death of Abû Ma'shar the legend appears in three related prologues to Latin works purporting to be retaining the antediluvian wisdom of the Hermetic tradition.3 The Hermes have been accommodated to Old Testament history, and the second Hermes has become Noah, but the story bears an obvious relation to Abû Ma'shar's version and is associated with alchemic works of Arabic origin. The story appears in its least adulterated form in the translator's prologue to the Septem tractatus Hermetis sapientia triplexis:

In historiae divinarum rerum, tres praeclaros viros philosophos, quemlibet vocatum Hermetem, legimus. Horum primus Enoch ante diluvium fuit, qui angelis comitantibus, igneo curru in coelum abit. Secundus autem Noe, qui in archa, Dei iussu, a diluvio multarum aquarum salvus evasit. Eorum enim alterutrum alio nomine Hermes, alio nomine vocatus est Mercurius, ad differentiam Hermetis, qui post diluvium regnavit in Aegypto. Hic enim tertius clarissimus vir, qui regali dianematis decoratus, diu rex Aegypto imperavit, a trina virtute Ter magnus dictus est. Ipsum namque ferunt Regem, Philosophum, atque Prophetam fuisse, qui et totius liberalis mechanicaeque disciplinae inventor furtur exitus.

In the thirteenth century Abû Ma'shar himself is still referred to as an authority on the 'second Hermes' by the author of the Summa Philosophiae of ps.-Grosseteste. In this Summa we read that the second Hermes was the nephew of the first, Egyptian, Hermes, and 'as Abû Ma'shar witnesses 'inter alia an astrologer and alchemist.4

Since Abû Ma'shar's legend was frequently excerpted from the Kitāb al-Uluf in later Arabic works, it is probable that, even before it reached the Latin world, it had gained a currency independent of its source. There are, however, two references to the Kitāb al-Uluf itself in a Latin work of the twelfth century, which have not, so far as I know, received any comment, but which could suggest a direct knowledge of the work by at least one Latin writer, and might provide a clue to the diffusion of its doctrine in the West.

This Latin source is the De Essentiis, written

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1 David Pingree, The Thousands of Abû Ma'shar, London 1968 (Studies of the Warburg Institute, XXX).
3 The Prophetae Castrensis (i) preceding the Liber de Compositione Alchemiae of Morienus, the translator's prologue (ii) to the Septem tractatus Hermetis sapientia triplexis (texts i and ii published by J. Ruska, 'Zwei Bücher De Compositione Alchemiae und ihre Vorreden', Archiv für Geschichte der Mathematik, der Naturwissenschaft und der Technik, xi, 1958, pp. 28–37) and the prologue (iii) to the anonymous Liber Hermetis Mercurii Triplexis de VI rurum principiis (ed. T. Silverstein, Archives d'histoire doctrinale et littéraire du Moyen Âge, xiii, 1955, pp. 217–305). Plessner ('Hirmis', p. 464) relates Ruska's texts to Abû Ma'shar's legend. The legend seems to have passed from ii to i (as Ruska shows) to iii (in which the work of Morienus is mentioned). The dates and authorship of these prologues are still in doubt, but it is tempting to maintain, in some way, the traditional association of i with the Robert of Keton (sometimes known as 'Castrensis') who was a close friend of Hermann of Carinthia (see below), and to whom Hermann dedicated the De Essentiis and his translation of Abû Ma'shar's 'Greater Introduction'.

in Béziers in 1143 by Hermann of Carinthia, who worked primarily as a translator of Arabic astronomical and astrological works in the south of France and the north of Spain, but also had connexions with the School of Chartres. In the first passage Hermann is discussing the distances of the planets from the earth:

Atque ad hunc modum interpositorum quoque dimensio in promptu proportione inter circuitus collecta quousque a Saturno deinceps usque ad speram octavam restet 366ies tantum quanta intervallo Satumus multitum, tertium scilicet inter 4 mundi circuitus vel singuli quarumdam stellarum reditus certas temporis differentias metiuntur, quam magis integrum et generalem omnium siderum et stellarum circuitum necessaria totius mundi novitas consequitur! Hinc enim eluviones, hinc exusiones mundi mutuautur phisici.

The meaning of the ‘third of the four orbits’ is explained a little further on, when Hermann is discussing the ‘differences of time’ which are astrologically operative. The celebris differences are those of the year, the month, and the day, determined by the sun, the moon, and the outermost (ninth) sphere, respectively. The probabilis differences are those determined by the circuits of the planets Mercury, Venus, Mars, Jupiter and Saturn. The ‘necessary’ difference is determined, above all, by the movement of all the planets and the fixed stars, and hence is related to precession (i.e. the very slow movement of the ephemeris point with respect to the fixed stars—explained, in the Ptolemaic system, as an eastward movement of the fixed stars, or eighth sphere), to which Hermann was also referring in the first passage:

Necessariam Abumaixar in Libro Millenario quadripartito subdividit, circulum totum imitatione quadrantium per 4 primos numerorum gradus multiplicans, computo ex prima celebres specie inducto—primam quidem numerat annis 360, secundam 3,600, tertiam 36,000, quartam 360,000. Nos tamen tertiam excipientes proprie et velut privilegio quodam ‘necessitatis’ vocabulo significari volumus—licit ceteris nequaquam immunibus. Si enim vel singuli quarumdam stellarum redundit certas temporis differentias metiuntur, quanto magis integrum et generalem omnium siderum et stellarum circuitum necessaria totius mundi novitas consequitur! Hinc enim eluviones, hinc exusiones mundi mutuautur phisici.


2 See Alonso ed., p. 56, for the context; for greater clarity I have substituted Arabic numerals for the Roman numerals of the manuscripts; all the manuscripts have in libro millenario written above the Arabic words. Hermann appears to have arrived at '366 times' through a series of mathematical blunders, starting with a basic misapprehension that 'the ratio of diameters is half that of circumferences' (Alonso ed., p. 56).
measure out certain differences of time, how much more will a necessary radical change to the whole universe follow one complete general revolution of all the planets and stars! From this scientists derive the floods and conflagrations of the universe.)

That Hermann refers to the *Kitāb al-Ulāf* here is confirmed by al-Bīrūnī’s quotation of the same passage. Neither do the three differences of time (*celebris, probabilis, and necessaria*) derive from Abū Ma’shar, nor does the Arabic astrologer connect any of the divisions with the movement of the stars. Hermann seems to be aware of breaking new ground in his definition of the ‘necessary’ difference of time; and his innovation lies precisely in his blending of diverse traditions—which is a notable characteristic of the *De Essentiis* as a whole. But what is especially interesting is that Hermann should use information from the *Kitāb al-Ulāf* at all. The work is no longer extant in full in Arabic, and our only testimoniates to it are the fragments and summaries in later Arabic works. Was a complete copy of the *Kitāb* available to Hermann? Do we know that the original existed in Spain in the twelfth century? Might the Latin title which Hermann gives the work in the second reference, imply that a Latin translation was made?

The occurrence of the Arabic word *fi* (meaning ‘in’) in Hermann’s first reference to the *Kitāb*, suggests that he found the phrase ‘Abū Ma’shar *fi* *Kitāb al-Ulāf* intact in an Arabic secondary source. However, Hermann was, himself, very familiar with several works of Abū Ma’shar. He had translated the ‘Greater Introduction to Astrology’ (*Kitāb al-madkhal al-kabīr ilā ‘ilm aḥkām an-nuṭūj*) and, in the *De Essentiis*, he refers to the *Kitāb al-Qirānāt*, and to his own translation of Abū Ma’shar’s annales. He also says that he has used a set of astronomical tables by Abū Ma’shar, which seem to be the *Zīj al-Hāzārat*; these give another part of the Persian doctrine found in the *Kitāb al-Ulāf*. There appears to be no evidence that Abū Ma’shar himself quotes the *Kitāb al-Ulāf* in any of these works, but it is quite likely that an Arabic manuscript would include this treatise alongside one or more of his other works.

In general, Hermann follows Abū Ma’shar’s authority without question. He believes that astrology originated with the Indians, and migrated westwards via the Persians and the Arabs. The fathers of astrology in the *De Essentiis*—Hermes et Astalius [i.e. Asclepius] Pesarum astrologi, pupils of ‘Abidemon [i.e. Agathodaimon] Indorum rex’—clearly belong to that ‘strange mingling of the traditions of

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1 See Alonso ed., p. 68.
2 Al-Bīrūnī, *Qānūn al-Ma’sūdī*, iii, Hyderabad 1954-1956, pp. 1474-9, summarised in Fingerre. *Thousand, p. 59. Al-Bīrūnī refers to the *Kitāb al-Ulāf* by name, and quotes the text in greater detail than Hermann, who mentions only the divisions whose Arabic name is the *Tasjīrdī. For a clear account of the principle of Abū Ma’shar’s divisions see E. S. Kennedy, ’Rami

3 For the Great Year (*magnus annus* or *annus certissimus*) Hermann’s principal sources are Plato, *Timaeus 39D; Cicero, *Somnium Scipionis*, 7; Macrobius, *Commentarii in Somnium Scipionis*, ii.118-17 (see P. R. Coleman-Norton, ’Cicero’s doctrine of the Great Year’, *Laval théologique et philosophique*, iii, 1942, pp. 293-301, and B. L. van der Waerden, *Das Große Jahr und die ewige Wiederkehr*, Hermes, lxv, 1952, pp. 199-55). When it was related to any astronomical periodicity at all, the Great Year was equal to the lowest common multiple of the periods of all the planets; with the discovery of precession, the evolution of the eighth sphere was included, and this, in itself, provided the period of the Great Year. The inspiration of Hermann’s *celebris* and *probabilis* differences is clearly *Timaeus 39C-D; in using the word *necessaria* he may have been influenced by the connotation of ‘destiny’ in the Arabic word for ‘division’ (*jism*) used by Abū Ma’shar in this context.

4 We know that in the eleventh century in Spain *Ṣā‘īd al-Andalusi (1029-70)* used the *Kitāb al-Ulāf* as a source in his *Kitāb šabqāt al-amān* (cf. Fingerre, *Thousand, p. 14*). Fingerre lists our testimoniates to the *Kitāb al-Ulāf* on pp. 14, 21-27; none of the works mentioned here appears to have been known to Hermann.

5 Three Hermes and Abū Ma’shar
Iran and Harran\textsuperscript{18}, which is so prominent in the \textit{Kitāb al-Ulūf}. I suggest that Hermann might have been partly responsible for extending these traditions into the Latin world, and that, through the \textit{De Essentiis}, we have glimpses of a further stage in the history of the \textit{Kitāb al-Ulūf}.  

\textsuperscript{18} Pingree, \textit{Thousands}, p. 18.
HERMANN OF CARINTHIA AND
THE KITAB AL-ISTAMATIS:
FURTHER EVIDENCE FOR THE
TRANSMISSION OF
HERMETIC MAGIC

In a discussion of the nature of incorporeal spirits in the De Essentia (completed at Béziers in 1143) Hermann of Carinthia1 quotes a passage from a book which he calls 'Aristotle's Data Neiringet'.2 The passage reads as follows:

1 Aristotle relates that first in the days of the king of the Medes, at Thebes, the spirit of Venus came to a certain man called Iaoth of the same region in a dream, and addressed him in this way: 1) When the Sun is in the sign of Gemini, and the Moon is in Cancer, on the day of Venus, [3] you will undress, wash, perfume yourself and put on a ram in my name and in [the name of] the wise man of the same region in a dream, and have taken up a white ram with a halter, go alone under a smooth date-palm, and there you will sacrifice your victim, calling on these names. [6] Afterwards, whenever you call them, ministers for whatever you desire will be present to you. [7] Only make sure that you bring into the same ceremony as companions only close friends and worthy individuals. De Essentia 72E-F.

Thus LC; (C gives charten for chaten; LC have capisteria). The quotation in N is slightly different: Aristoteles vero primum in diebus Medorum regis, Thebe cuidam faeth eiusdem regionis spiritum Ven­ eros in sompniis venisse tradit, eumque sic affatum: 3) Qua deinde, quotiens invocaveris, aderunt tibi omnis teretis arborem palmi proficiscere, [5] ibique immo­ repto deinde ariete albo cum capistro solus sub arbore palmi

gionem inducas.


2 Thus N; C gives metinget, C gives data followed by a lacuna. I am grateful to Professor Richard Lemay of the City University, New York, for pointing out the correct reading.

3 The fourth, the clime of Venus. The wise Aris­ totle said: there was a wise man of the fourth clime to whom her (Venus's) spirit used to be intimate in the desert, and he was called Sháuth . . . . The wise Arist­ totle said, the spirit of Venus was intimate with him and spoke in his language and ordered him and said: [2] 'When the Sun is in Pisces, and the Moon is in Cancer, then choose a Friday [3] and wash yourself and clean yourself and perfume yourself, [4] and hasten and enter a walled garden and aim for a round date-palm or another tree, and go under it. And take with you a ram and a knife. [5] And approach the ram in my name and in [the name of] my spirit. And you should say: Dídás Ghalilás Haslás Damárís Tilsán Samlus Arúsh DáJharísh. [6] And I will

I have argued in my edition of Hermann's De Essentia (forthcoming) that the differences between N and LC suggest a revision to the text which appears to have been made by Hermann himself.

4 For a catalogue of these works see Burnett, 'Arabic into Latin', art. cit. n. 1 above.

5 De Essentia 72D-E and 56C. Hermann may have known the text directly (ed. U. Weisser, Buch über das Geheimnis der Schächtung, Aleppo 1979) in the same MS used by the translator Hugo of Santalla. Hugo's Latin translation of De Secreta Naturae is being prepared for publication by Mile M.-T. D'Alverny and Mme Hudry.

6 De Essentia 72D: 'sic Hermes in Aurea Virga . . . Hermes quidem ipso privati sui sub coeloginibus ad et facta retractat. This reference does not seem to be related to any extant Latin text called Aurea Virga. However, Hermes's Aurea Virga is also cited in the preface to Liber Hermeticus de Sex Principiis (a composite work, perhaps of the late twelfth century) ed. T. Silverstein, Archæos d'histoire doctrinale et littéraire du moyenâge, xxxi, 1955, p. 247, and may correspond to an Arabic work with the same title — Hermes, k. Qudib al-dhabah (Hermes, the book on the Golden Bough'), Ibn al-Nadim, Thibrat, ed. Fliggl, p. 267.15). Other references to Hermes in De Essentia (58E, 59A, 59G) are taken from his translation of Abú Ma'Qar's Másīs Introductorium, where Hermes is cited as an authority (Book vi, Ch. 1, pr. Erhard Raitdelt, Augsburg 1489, fol. 30v). Hermann also refers several times to the Aristotelis of Hermes Trismegistus, the one Hermetic work amongst his Latin sources.


come into your presence. And ask what you want and wish for what you desire. [7] And take disciples whom you might teach so that they might learn the same thing also.

This version is close enough to Hermann's citation to be its source. Hermann adds a reference to a date and a place ('in the days of the king of the Medes, at Thebes'), but since the names he uses are Latin, this could be an interpolation. He slightly abbreviates the Arabic, omitting the name of Venus's spirit. His substitution of Gemini for Pisces is probably a straightforward error caused by the similarity of the symbols II and Ⅲ, and his version of part [7] is probably due to misinterpretation of the Arabic. Given the notorious unreliability of transliterated proper names, Shāūth is remarkably close to laoth. But what is most significant is that the Arabic word which Hermann leaves untranslated — *chatien* — occurs in this very MS (*ḥā'ītan*, 'walled garden' [4]). Hermann had evidently failed to understand the Arabic, perhaps thinking that *ḥā'ītan* referred to a ceremonial garment of some sort. But by merely transliterating the word he has given us a valuable clue to the origin of his citation. For, of the MSS of the *k. al-ʾIstāmašis*, Marsh 556 ('the commentary') is the only one that gives the reading *ḥā'ītan*. Is it possible then, that Hermann knew the *k. al-ʾIstāmašis* in the same version as that found in Marsh 556; or might there have been an intermediary source, through which Hermann knew the work?

The most likely of these sources would be the *Ghāyat al-ḥakim* known in Latin as the *Picatrix*. This is an Arabic compendium of Hermetic science attributed falsely to Maslama al-Majrīṭī, but apparently composed in Spain in the eleventh century. The work was translated into Spanish and thence into Latin under the auspices of Alfonso X, King of Castile, in the second half of the thirteenth century. There is no evidence of an earlier Latin translation; however, Hermann could have known the work in the original Arabic. A large portion of the *k. al-ʾIstāmašis*, including the passage with which we are concerned, is contained in the *Ghāyat*, and the title is given: 'Aristotle's work, addressed to Alexander, called *kitāb al-ʾIstāmašis*.' However, Hermann's quotation does not correspond to the version in the *Ghāyat*, which is considerably abbreviated:

[1] And as for the summoning of the spirit of Venus, [2] then aim for the time when the Sun is in the beginning of Pisces and the Moon is in Cancer, and that very Friday, [3] clean and perfume yourself [4] and enter a bath, and aim for a date-palm or any kind of tree, and go under it. And take with you a ram and a knife and [5] you should say: Didās, Ghīlūs, Hamīlus, Damāris, Timās, Samlūs, Arhūs, Hašāris. [6] And ask what you like, and wish for what you want. 11

There is, however, another text which can be brought into consideration — a Latin work with the promising title, *Liber Antimaquis*. This occurs in a fourteenth-century MS in the Sloane collection of the British Library. The text is incomplete, the folios are in the wrong order, and two folios can be shown to be missing. 12 It turns out...
TRANSMISSION OF HERMETIC MAGIC 169

that the Liber Antimaquis is based on the first part of the Arabic work occurring in MS Paris ar. 2577, fols 93v–105v, whose opening words are: 'Hunain ibn Ishâq says: Among the books of Aristotle which we have found and which we have translated from Greek into Arabic there exists the book of the spiritualities composed by Hermes.' Further on, this Arabic work is said to be a sequel to k. al-Istamâkhis. It is presumably from this latter title that the Liber Antimaquis takes its name. However, a large part of the contents of this 'book of the causes of spiritualities', including sections also in the Liber Antimaquis, correspond to the contents of the k. al-Istamâkhis in Marsh 5 6.14 The passage we have been discussing is found on fol. 96v of the Liber Antimaquis:


Fols 104–105' contain the end of a work of scurrilous tales of Italian provenance which I have not identified. The Liber Antimaquis starts on fol. 105' and is continuous except for the breaks caused by the loss of the bifolium between fols 91v and 96v, 97v and 102v. The work breaks off completely at the end of fol. 103v. The last part of the Liber Antimaquis includes spells employing Scandinavian runes (fols 101v–102) and Christian spells (fols 102v–103) and would not therefore appear to be of Arabic origin.

14 S fols 104–1071' corresponds, sometimes closely, sometimes only approximatively, and abbreviating considerably, to P fols 38–60. The work translated by 'Ij CUTIN begins six pages after the beginning of a work described as 'the book of Hermes on spiritualities' (kitâb Hirmis fil-I-râhâniyya, P fols 35v–104), which in turn is called 'the second part'. The 'first part' (P fols 1v–34) is called Hermes's kitâb al-Ustuwwa'taš (کتاب الرستووقی) on fol. 1', but kitâb al-Ustuwwaš (کتاب الرستووقی) on fol. 34'.


[2] When the Sun enters the beginning of Pisces and the Moon is in Cancer, on Friday and at Venus's hour [5], say these names: Dabras etc. [6] And seek whatever you want from the spirit and he will give it to you.

The relation of the Liber Antimaquis to its Arabic source, and the inter-relationship of several Arabic works with similar names and a large overlap in subject-matter (such as k. al-Istamâkhis, k. al-Istamâtis, and k. Ustuwwuwaš) need further investigation.16 Even Hermann may have known two different texts, as the variation between the MSS of the De Essentia attest.17 The title Hermann gives to the book is Aristotelis data neiringet, which could well be the title of one of the texts he knew (perhaps kitâb dhât al-niranjâl li-Aristutlâlis, 'Aristotle's book on the essence of the talismans'). One may compare this title with the statement at the beginning of the 'book of the causes of spiritualities, translated by Hunain', that 'in this work Aristotle treats of the causes of the spiritualities and the talismans' (islâl al-rûhânîyâl wa'l-niranjâl). 18

In the course of this short survey of the source of a quotation from a magical work in Hermann of Carinha's De Essentia it has become clear that there was more than one route by which the Hermetic tradition of magic may have passed from Arabic into Latin. The Ghâyat al-hakim, or Picatrix is the best known, but it by no means holds the field. The date of the composition of the Liber Antimaquis is unknown, but Hermann of Carinha's citation of a work by 'Aristotle' on talismans gives evidence that Hermetic magical texts were known to Latin scholars at least a century before the Alphonsine translations.

16 For these works see Ullmann, op. cit. n. 7 above, pp. 374–75, and F. Sezgin, Geschichte des Arabischen Schriftstums, vii, Leiden 1979, p. 57.

17 Professor David Pingree has pointed out to me that the form of the quotation in De Essentia MS N (fol. 3 above) may include under the words lslâl Persiam regis a reference to agird (agird), the Persian King from whose accession the Persian era was computed.

18 P fol. 38'. For the term niranj see Ullmann, op. cit. n. 7 above, p. 363: 'A niranj is a magical tool of a practical kind, for whose manufacture often long recipes with every conceivable ingredient are demanded' (my translation).
The *kitāb al-İstamāṭīs* and a Manuscript of Astrological and Astronomical Works from Barcelona (Biblioteca de Catalunya, 634)\(^1\)

In 1981 I published a short note describing several texts which suggested that an important Arabic work on astrological magic—the *kitāb al-İstamāṭīs*—was known to Latin scholars from at least the second quarter of the twelfth century.\(^2\) In the same note I referred to a fragment of the only Latin translation of the work known to me at the time, in a manuscript bound into British Library, Sloane 3854, which must be dated to the fifteenth century, since it includes the last few tales of the *Facetiae* of Poggio Bracciolini (written between 1430 and 1453). Consequently, I discovered a version of part of the same work in a manuscript which has been in Barcelona since at least the mid-fifteenth century, and was probably written in the early years of that century. In this article I propose to describe this manuscript, which contains some unusual works, and to edit the fragment of the *kitāb al-İstamāṭīs* it contains along with the corresponding passage in Sloane 3854.

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Barcelona, Biblioteca de Catalunya, 634, belongs to the Dalmases collection, which consists entirely of manuscripts from the city. It is an octavo manuscript consisting of 91 folios arranged in seven quires. Most of the quires consist of eight folios, of which the outermost and innermost are of vellum and those inbetween are of paper. The text is written in one column, and copious diagrams and tables are included.

The use of the manuscript by Catalan speakers is clear from the notes on the penultimate flyleaf (fol. 91v). These indicate a purchase (presumably that of the manuscript itself) for five *maravedi* in November 1446. The Castilian and Catalan names of what seem to be the sellers (?)—'petrus'

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\(^1\) This is a revision of the unpublished original English version of the Catalan article 'El *kitāb al-İstamāṭīs* i un manuscrit Barceloní d’obres astrologiques i astronòmiques', *Llengua i Literatura*, 2, 1987, pp. 431–51. The material for this paper was gathered in the course of a visit to Spain in May, 1984, which was made possible by a grant from the British Academy. I am grateful to Xavier Gil Pujol, David Pingree, Jaume Riera i Sans, José Chabás, Joanna Weinberg, and Lola Badia for their advice.

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alvero sindicus (?) e simon (?) puig—and the merchant—‘aristotill pau mercader’—are given at the bottom of the page, and the name of what is presumably the owner is written immediately below these three names: ‘iohan benares ho benavares’ (i.e., Joan Bonares or Benavarrès). In the centre of the page there is a table for the year 1479, written entirely in Catalan: a list of dates covering a ten-month period is followed by the names of the days of the week and their order within the week, the hour and minute of the day, and the signs and degrees corresponding to these times. The final column, which is blank, is headed coniunctio, and this heading would indicate the the subject of the table is the conjunctions of the Sun and Moon—i.e., the occurrences of New Moons—over the period concerned.3

There are no other recognisably Catalan words in the texts of the manuscript, though some of the unusual Latin words (see below) may exhibit Catalan characteristics in their vocabulary or orthography. The hand responsible for the Catalan on fol. 92v has also written the date 1486 in the margin of the astronomical tables on fol. 55r. What is apparently a later hand has attempted some ‘name-divination’ (onomancy) on fol. 78v, using the names Ambrosius and Catharina, Thomas and Francina; I cannot say whether these are Latin forms of distinctively Catalan names of the period.

The manuscript is not a deluxe copy. It is rather a notebook for the amateur or professional practitioner of astrology, and, as such, it is untidy and not straightforward to describe. If we leave out of consideration for the moment the glosses and additional material inserted on originally blank folios and in vacant spaces, the manuscript consists of the following works, written entirely in one hand:4

1) Fols 2v–14v. <Iohannes de Sacrobosco> Tractatus spere. A very common elementary introduction to astronomy, described in detail by L. Thorndike, The Sphere of Sacrobosco and its Commentators, Chicago, 1949. In this manuscript the work is preceded (fol. 2v) and followed (fols 14r–v) by diagrams illustrating the text, including a diagram with moving parts demonstrating how eclipses occur (fol. 14v).

2) Fols 15r–26v. Rabi Abraam, De prima forma cursus planetarum. This is the work which includes a long passage from the kitāb al-İstamātis, and which will be discussed in detail below.

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3 The Catalan values do not correspond exactly to the actual times and longitudes given in Herman Goldstine’s New and Full Moons 1001 B.C. to A.D. 1651, Philadelphia, 1973, p. 207.

4 Names and titles in pointed brackets are supplied by me; otherwise they are in the form found in the manuscript.
3) Fol. 27r. Quando Luna intrat quodlibet signum quis effectus (sic) sequetur. Verses on blood-letting according to the position of the Moon in the signs of the zodiac. A very common text, excerpted from the Regimen sanitatis Salernitanum, ed. Salvatore de Renzi, Collectio Salernitana, 5, Naples, 1859, p. 40.

4) Fols 27r–v. Two jejune astrological paragraphs follow, beginning Predictorum signorum quedam sunt mobilia...and Aries in capite de prima triplicitate masculinum (headed: De qualitatibus et naturis signorum).

5) Between fols 27 and 28 four folios have been cut out. The glosses that can still be read indicate the subject-matter was astrological.

6) Fol. 28r. a) a circular diagram using onomancy for indicating whether the patient will live or die, commonly called 'the sphere of Pythagoras'; see E. Wickersheimer, 'Figures médico-astrologiques des ix°, xi°, et xi° siècles', Janus, 19, 1914, pp. 1-21.
b) a circular diagram illustrating the relationships of the signs of the zodiac to each other. The first tropical sign, Aries, is ascendens and related to fire; the rubric of the second tropical sign has been cut off with the trimming of the folio; the third, Libra, is descendens and related to water; the fourth, Capricorn, is augmentans and related to air. The cardinal, succedent and cadent houses are described rather unusually as, respectively, cavilla, propinquus and cadens. Cavilla occurs in Mediaeval Latin texts elsewhere with the meaning of 'wooden or iron peg',5 which is the primary meaning of the usual Arabic word for 'cardine': 'watad'.

7) Fol. 28v. a) a brief excerpt on zodiacal onomancy. b) a table showing the approximate position of the Moon on the ecliptic on each day of each month.

8) Fol. 29r. A more detailed version of the table given in 7b, described in the canon as Tabula magistri Petri de Dacia de loco Lune inventiendo. This table is edited from other manuscripts by F. Saaby Pedersen in Petri Philomenae de Dacia et Petri de S. Audomaro Opera Quadrivialia, I, Copenhagen, 1983, p. 360.

9) Fols 29v–31r are empty except for some later jottings.

10) Fol 31v. A table giving the latitude and longitude of certain fixed stars.


12) Fols 41r–47v. <Profatius Iudaeus, Quadrans novus, translated by Ermengaud de Blaise>. Incipit tractatus Perfecti Judei de Marcilia super

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5 Hence 'cavilha' (Portuguese) and 'cheville' (French), with the same meaning.
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quadrante translatus de ebraico in latinum a magistro Ermengaudo Blasini secundum vocem eiusdem apud Montem Pesulanum. This translation was made in 1290; TK, col. 1300.

13) Fols 48r–78r. Canon (fols 48r–54r) and tables (fols 54v–78r) for the movement of the Sun and the Moon. The canon is headed: Declaratio tabularum infra sequencium quibus cognoscitur eclipsis solaris et lunaris, and begins: ‘Quia scientia mathematicalis inter alias scientias est singularis...’. Amongst the authorities cited are Ptolemy and ille egregius doctor rabi moyses in libro iudiciorum sanctificationis mensis (i.e., the section of Moses Maimonides’s Mishneh Torah on the laws on the Sanctification of the New Moon), and the starting year (‘radix’) is 1362. These are the tables for the meridian of Perpignan drawn up by Jacob Poel (Bonjorn) in 1361, and discussed by L. Thorndike in Isis, 34, 1942, pp. 6–7, ibid., 35, 1943, p. 410, and José Chabás in Análisis del contenido astronómico de las tables de Jacob ben David Bonjorn, tesis doctoral, Facultad de Física, Universidad de Barcelona, 1989. On fol. 51v the scribe betrays vernacular influence by writing cauculatione for calculatione.

14) Fol. 78v. Originally a blank folio, followed by several folios which have been cut out.

15) Fol. 79r. The end of an astrological treatise, similar in form to the works on natives born under each of the lunar houses in the Liber Alchandrei (Paris, Bibliothèque nationale, lat. 17868, fols 6r–8v) and to that edited by E. Svenberg in Lunaria et Zodiologia Latina, Gothenburg, 1963, pp. 45–59.

16) Fols 79v–83v, Centiloquium Ptolomei: ‘Scientia stellarum ex te et illis est...’. This is the version of the widespread Centiloquium falsely attributed to Ptolemy, made by Plato of Tivoli, who was active in Barcelona in the second quarter of the twelfth century.

17) a) Fols 84r–87v, Tractatus Davidis ludei: ‘Quia ut dicit Tolomeus in Centiloquio, vultus huius seculi sunt vultibus celestibus similes’. This work, which is not mentioned in the catalogue of Thorndike and Kibre, is avowedly intended for doctors who need to know astrology in the everyday practice of their profession (‘tractatum...de hiis que indiget medicus coltudie in dando laxativa, ciropos, et vomitia et in faciendo flebotomias...’).

b) Fols 88r–90r. Two tables, the first showing several sets of attributes for the signs of the zodiac, the second, corresponding sets for the planets. The tables, in that they include the parts of the body and the illnesses associated with each of the signs of the zodiac and the planets, are an appendix to the foregoing work.

6 The contents are briefly described and placed in context in my article ‘Astrology and Medicine in the Middle Ages’, Bulletin of the Society for the Social History of Medicine, 37, 1985, pp. 16–18.
Of the above works, nos 2, 15 and 17 have not been identified in any other manuscript. It is noticeable that several of the works included in the manuscript are by, or associated with, Jewish astrologers. Thus no. 2 is by a 'Rabi Abraam' and no. 12 by Profatius Iudaeeus (i.e., Jacob ben Machir ben Tibbon). No. 13 is the work of the Jew Jacob Peol and refers to Maimonides in very deferential terms. No. 16 is a translation by Plato of Tivoli, whose close association with Abraham bar Hiyya is well-known, and the last author in the manuscript, who quotes from Plato's version of the Centiloquium, is a 'David Iudaeeus'. The most common onomastic texts have a Hebrew association, as do the earliest texts in the West concerning the lunar mansions. Most striking is that the letters of the Hebrew alphabet appear to have been used to number the tables, though most of these letters have now been partially or totally cut off in the trimming of the folios. A phrase consisting of at least ten Hebrew letters has been cut off in the top margin of fol. 71v, within the tables.

However, to off-set this Jewishness, several pious formulae have been added which express the Christian faith:

Fol. 13v. 'Explicit spera Iohannis de Sacrobosco qui in pace requiescat. Amen.'
Fol. 40v. 'Explicit liber practice astrolabii. Benedictus sit dominus deus Ihesus Christus Amen.'
Fol. 54r (the end of the canons): 'Et facit relucere faciem eius cum illo lumine quod dedit ei Deus benedictus, qui est lux perfecta, fortis et continua, ex cuius habundancia relucere tenebre, ut dixit Propheta: Terra illuminata est gloria eius' (Apoc. 18, 1). Dominus Deus Sabbaoth revertere nos et reluce faciem tuam, et salvi erimus. Amen.'
Fol. 87v. 'Totum tamen est in potestate Dei qui est medicus omnis carnis, et est magus et faciens mirabilia magna solus, et nullus alius ab ipso, qui vivit et regnat in secula seculorum. Amen.'

Those works whose place of composition is known, come from Catalonia and the neighbouring Provence. Plato of Tivoli and Abraham bar Hiyya worked in Barcelona. Ermengaud de Blaise made his translation in Montpellier, but is also associated with Barcelona where his uncle, Arnald of Villanova resided. The Tibbonid family were active in several towns in Provence, and Jacob Poel (Bonjorn) wrote tables for both Perpignan and Barcelona. A more narrow association of some of these works with Petrus Ceremoniosus (Peter IV, king of Aragon, d. 1387) who commissioned the Barcelona tables, might be possible.

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8 That a considerable number of astrological and magical works survived in the Royal Library is shown by the inventory of the books of King Martin of Aragon (d. 1410), edited in J. Massó i Torrents, 'Inventari dels béns mobles del rey Martí
One assiduous glossator has read through most of the manuscript, making notes in a small, neat hand of a date not far removed from that of the main scribe. His annotations are mainly of an astrological nature, but he also shows a considerable interest in Classical mythology (e.g., in an excursus on Saturn on fol. 23v) and quotes from Isidore and Prester John. The Catalan notes in a later hand have already been referred to. There are further notes in Latin on fols 65r–v which mention the year 1506.

What might be the original scribe has written against the table of fol. 65v ‘in an no .mccccxiii. servit hec tabula’ (cut off by the margin). That is, ‘this table is valid in 1414’. An early fifteenth-century date would fit the script of the manuscript.

We have, therefore, a manuscript of astrological works, many written by Jews, compiled towards the beginning of the fifteenth century, and perhaps sold to a Jewish merchant by a certain Pedro Alvaro and Simó Puig in 1446, and bought by a Joan Benarès who may have made notes in the manuscript in Catalan for the year 1479. He or his successors were still using the manuscript in the early sixteenth century, and it has remained in Barcelona until the present day.

* * * *

The text in this manuscript on which I wish to concentrate is the second work, occurring on fols 15r–26v. This appears to be a single work. The contents, however, fall into three disparate categories, as we shall see, and one is inclined to think that a single author has brought together chapters from three different sources in a misguided attempt to compose an introduction to astronomy and astrology.

I. The first source is indicated in the title of the first chapter: *secundum rabi abraam de prima forma cursus planetarum*. One immediately thinks of Abraham bar Hiyya, and indeed, the first five chapters of the work are a translation or summary of a substantial portion of the Jewish exegete’s *On the Form of the Earth* (*Šurat ha-‘areṣ*). This was very popular in Jewish circles, but, so far, no Medieval Latin translation of the work has been identified. The first chapter begins: ‘Declaratum est in libris antiquorum philosophorum quod figura universalis omnium celorum est figura sperica’. The problem is posed that, in that astronomy is based on...
natural philosophy and therefore all circular movements should be uniform, why is it that the planets seem to move now faster, now slower. Geometry provides the answer by means of eccentric and epicyclic circles, which give the two paradigms (formae) for the planets’ movements. The first chapter is devoted to describing the first forma (= Šurat ha-‘ares, II, §10), the second to the second forma (= Šurat ha-‘ares, II, §11). In the third chapter the movement of the Sun is explained in terms of the eccentric paradigm (= Šurat ha-‘ares, II, §12–13), while in the fourth and fifth chapters the more complex movements of the Moon are described (= Šurat ha-‘ares, III).

The consistent use of the word super in place of de for ‘about’ would suggest that the author was thinking in the vernacular (compare Castilian and Catalan sobre), but whether that is the implication of odd sentences like the following is not clear to me:

Fol. 17r: ‘Tu non potes stare super proportione cursus Solis equalis, nisi prius investiges numerum dierum anni eius’. A more correct Latin version of this would be: ‘Non poteris rationem uniformis Solis cursus invenire, nisi prius numerum dierum anni eius investigaveris’. But in Catalan the sentence would run: ‘Tu no pots entendre sobre la porporció del curs igual del sol, si primer no investigues el número dels dies del seu any’.

Vernacular influence on the Latin text is also evident in the common use of single consonants in place of double (mitit, afert, afligunt, mitet etc.), and the use of non-Classical words such as bladus (‘cereal’), baro (‘man/husband’) and cavilla (‘cardinal house’).

II. On fol. 22v the subject turns from planetary theory to the computus. A chapter on the divisions of time (de multiplicatione et diminutione numeri temporum et dierum), based not on the sexagesimal system known since the introduction of Arabic works in the twelfth century, but on the old system of atoms, moments, parts, minutes, points and hours described by Bede and Isidore, is followed by a paragraph on the course of the Moon which these time units are employed, which may be the De luna of Walcher of Malvern.10

III. The third section of this compilation begins on fol. 23r with a chapter headed De naturis et proprietatibus planetarum. This chapter is followed by another De amicicia vel inimicicia planetarum, which ends abruptly on fol 26v without an explicit, and corresponds to a section in the work which I have previously described as the kitāb al-Iṣṭamātīs.11

11 Millás Vallicrosa (La obra “Forma da la tierra”), claims that (1) Šurat ha-‘ares was intended to be the first part of a larger work in which the second and third parts were extant works on astronomy and astronomical tables, and that (2)
In Arabic there are several works with similar-sounding names which transmit the same subject-matter, often arranged in different sequences and put down in different wording, but consistently ascribed to Hermes. Whether behind the Arabic texts there lies an original Greek or Syriac document which first set forth this Hermetic material has yet to be discovered. That this Hermetic tradition passed over into the Latin-reading world is demonstrated by the fragments of Latin works containing the same material in the manuscripts of the Sloane Collection and the Biblioteca de Catalunya. To put the Latin fragments into context I shall first describe the Arabic material as it is found in MS Paris, Bibliothèque nationale, ar. 2577.

This text belongs to the class of works with names ending in -âtîs, -îtîs, -âtâs and -âkhîs. The mare’s-nest that these texts form is illustrated by the difficulty in finding the correct title of the text in the Paris manuscript. On the first page it is called kitâb al-Usfûwâtâs of Hermes the Wise. Then on fol. 11r of the work we read ‘Aristotle the translator of this book, said that Hermes said... ’; and Ǧâla Hîrmis (‘Hermes said’) alternates with Ǧâla Aristâtâtîlis qâla Hîrmis (‘Aristotle said that Hermes said’). On fol. 34r there is the ambiguous reference to ‘the end of the kitâb al-Usrûras (sic) and this is the first part of the book’. The second book begins with the words ‘The second part of the book of Hermes on the spiritual forces’ (‘rûhâniyyât’), and again begins with the now familiar formula Ǧâla Aristâtâtîlis qâla Hîrmis. The same words occur several folios later, but this time the text begins:

Hunain ibn Ishâq said: this is one of the books of Aristotle which we found and translated from Greek into Arabic. It is the book of the causes (‘îlal’) of the spiritual forces by Hermes, and their division over the 7 regions (‘âqlim’). And this is the book in which Aristotle explained the causes of spiritual forces and nairanjâd and their quality (‘kaifiyyatiha’) and their actions (‘a’mâliha’) and their essences (‘jawâhiriha’) and their differences divided according to the 7 regions. And this is what Alexander demanded from Aristotle the Wise when he had completed the kitâb al-Isṭamâkhîs, which he had composed for him on his journey to Persia.

Abraham bar Ḥiyya announced that he would complement this astronomical work with an astrological one, but that (3) this astrological text was never completed, or at least did not survive (see pp. 18–19). It is worth considering whether the third section of our text is related to the lost or uncompleted work of Abraham. The second section of our text is, however, totally foreign to the astronomy of Abraham in which the sexagesimal system is used throughout.
Finally the colophon of the manuscript gives the name of the whole work as 'the book of Hermes on the spiritual forces', and this is the name we adopt. But within the text in the Paris manuscript further sources are given, with the names 'Hermes' book of the hidden and concealed Secrets', 'Hermes' book of the deposit', and 'Hermes' book of the secrets of the world'.

The work begins with a detailed account of the precise relationship between the megacosm and the microcosm, which is valid at both a spiritual and a corporeal level. The megacosm—or universe—has as its outermost component the firmament under which is the corporeal sphere of the twelve signs of the zodiac. The seven planes, which are 'spiritual' entities, act as 'doors' through which the spiritual power of the firmament passes to the signs of the zodiac and to the earth.\(^\text{12}\) Man's head corresponds to the firmament, his chest to the sphere of the twelve signs, and his feet to the earth. Through the seven 'doors' of his head—two eyes, two ears, two nostrils and mouth—which are assigned to each of the seven planets—the spiritual influx passes into the chest, where it rules the seven interior organs, the heart, the stomach, the lungs, the liver, the spleen and the two kidneys. In each of these organs resides one psychological faculty, such as intelligence, anger, love, etc... There is a second division whereby the whole of man from head to toe is divided amongst the signs of the zodiac from Aries to Pisces. This is the familiar astrological 'melothesia', but then, just as the planets have their exaltations in certain signs of the zodiac, so the spirits of those planets rule in the parts of the body assigned to the signs in which the planet has its exaltation.

Then in man, too, there are correspondences with the whole of the created world: the heart is in sympathy with two-footed animals, the liver with four-footed animals; to the lungs belong birds, to the spleen, fish; while insects are assigned to the kidneys. More obvious parallels are drawn for the blood (= water), the veins (= rivers), the sinews and nails, which are like rocks, and the bones which are like the mountains. The hair is like plants and trees, while the parts of the body without hair are like deserts.

The spiritual forces multiply like bacteria within man. Venus's spiritual forces are divided through 360 veins; another 900 veins contain Mars' spirits; Jupiter's spirits occupy each of the 560 measures of blood, whereas 12 measure of saliva are occupied by Mercury's spirits. The

\(^{12}\) For the implication that the signs of the zodiac lie below the planets, compare the similar view that the fixed stars lie between the orbits of the Moon and Mercury, found in several Indian astronomical works and 'Jafar Indus' (a Latin translation from Arabic made by Hugo of Santalla in the mid-twelfth century); see D. Pingree, 'The Indian and Pseudo-Indian Passages in Greek and Latin Astronomical and Astrological Texts', *Viator*, 7, 1976, pp. 141–95 (174).
96,000 hairs are thronged with Saturn's spirits, whereas the mere 28 measures of man's brain belong to the Moon. Finally, 360 measures of fat belong to the spirits of the Sun.

But this is to describe the end-product. In the beginning the earth was without any spiritual content at all. For its first 33,000 years of existence it was barren and without life. Then the spiritual force of the planets became apparent in the waters, and fishes, followed by insects, appeared. After another 11,000 years there appeared four-footed animals. Finally, 55,000 years after the beginning, man appeared on the face of the earth.

Now an interesting variant of the story of Adam and Eve (called here Admānūs and Haywānūs) is given. All the planets except Saturn were in their exaltations: this meant that they were literally nearer to the spiritual reservoir of the firmament, and, therefore, the spiritual powers that they relayed to the earth were more intense than at any other time. These spiritual forces coalesced into a spiritual being which is called in the manuscript Ḥādūs. Then, by gathering together spiritual forces from the firmament, the zodiac, the planets and the earth, and by sheer willing and concentration of thought, Ḥādūs was able to bring into being Admānūs, at first as a kind of zombie without intelligence; then, with a further injection of spirits, as a fully-developed man. Admānūs gazes in wonder at his creator. He is lost in contemplation of him, and is fully contented because of his total trust in him. But Ḥādūs induces a deep sleep on Admānūs, and extracts part of his flesh and spirits, from which he creates Haywānūs—at first as a kind of two-dimensional picture without intelligence. Admānūs becomes so engrossed by this picture that it takes on full humanity, and entices him away from the contemplation of his creator Ḥādūs, and into loving and trusting Haywānūs instead, until their mutual feeling is eventually consummated in union.

There follows a eulogy of the greatness of Man. He has power over all creatures; he knows all knowledge; he can do all things, see all things, hear all things, eat all things, drink all things. This is because he is the form of forms, embodying in himself the whole of creation, to which he is also connected by the matrix of spiritual forces.

From this natural relationship with all things as the microcosm, and as a result of the wisdom infused in him from on high, man has the power to manipulate nature. And it is the instructions for doing this—i.e., for working magic—that occupy the rest of this long work. The 'first part' of the work ends with an account of the purpose of the magical images or talismans, to be made in each of the 28 mansions of the Moon. The second part of the work—Ḥunain ibn Ishāq's translation of Hermes' book of the causes of spiritual forces—specifies that different procedures for
working magic must be followed in each of the seven regions of the world. For each of these regions is under the dominion of a different planet, which dictates the character, the religion and the laws of the people under its jurisdiction. To each of the planets and to each of the spiritual forces of their different ‘directions’ a magical name is given. Three of the planets’ spiritual forces—the upper, the infront and the behind—are not composed with earthly beings; but the four others are so composed. For all these composed spiritual forces there are particular animals, trees, herbs, gems and minerals. For example, to the Sun are ascribed rapacious animals, including the Filam in China, which is like an elephant, but has a long neck instead of a trunk, wild cows, lions and poisonous snakes, all fragrant trees with fruit that has a good taste, such as figs, quinces, apples and pears, and every red spice, good to smell, like nard, sweet cyperus and sandalwood, rice and white beans, and gold, ruby, carnelian and every red gem.

A story is told concerning the revelation of the knowledge of the spiritual forces of the planets for each region. We will summarize, as an example, the story concerning Saturn’s region, which is India (‘Hind’).

At a time when the inhabitants of India had no law and were like wild animals in their way of life, their King, called Safnadūla, was visited in a dream by the spirit of Saturn in the form of a black man. Acting according to Saturn’s instructions, Safnadūla summoned 72 leaders of the people of his region, on an appointed day and at a specified place, where, after fumigation of specific organic and inorganic matters and a sacrifice in front of a statue of Saturn, the same black man came out of the statue, dressed in clothes coloured black, yellow and green, and endowed each of the 72 elders with one of the 72 spirits of Saturn. From these spirits they were given knowledge, and were able to exercise control over their affairs. Moreover, after appropriate purifications, wearing of ceremonial clothing, sacrifice, preparation of food and incantations (the magical words to be addressed to each planet are given) each could summon up his spirit in visible form, and that spirit would do his bidding.

The knowledge with which the 72 elders are endowed is primarily that of making talismans or nairanjāt (the Arabic form of a Persian word for the same object) and the rest of the section on each planet is devoted to the recipes for making poisons and potions (with their antidotes) with such ingredients as monkey brain, buffalo milk, elephant urine, and other noxious things; but also herbs and spices such as cloves and camphor. Finally, there are instructions for making the signet ring of each planet. The kind of gem to be set in the ring is described first. On this, on the planet’s day and at the planet’s hour, the image of the planet is inscribed on the outside, and on the inside magic letters or cryptographs are
written. Then the stone is set in a ring of a particular metal, and the ring gives its wearer particular powers.

* * * *

Whether all this material was ever translated into Latin we do not yet know. The section on talismans to be made in each of the twenty-eight mansions of the Moon formed a separate tract in Arabic, which was either incorporated into the book of Hermes on the spiritual forces, or excerpted from it; it appears in a Latin translation.¹³ The fragment of the translation in the Sloane manuscript headed 'Antimaquis' ( = Istamâkhîs?), in addition to the material shared with the Barcelona fragment, includes the description of the microcosm, the spiritual forces of each of the planets, and the various animals, plants, spices, minerals and gems associated with them. The section shared by the Sloane and the Barcelona manuscript corresponds to the opening of the second part of Hermes' book on the spiritual forces, as found in the Paris manuscript, and also in MS Oxford, Marsh 556, where the material appears under the title 'kitâb al-Mâdîtîs ...a commentary on the kitâb al-Îstamâtîs'.

In the following edition the orthography of the Latin manuscripts has been retained, and no attempt has been made to emend the two texts even in places where the errors are blatant (as for example fortuitum for fornictionem in sentences 89 and 108 in the Sloane manuscript). In the case of unique manuscripts of texts emendations can only be made on the basis of guesswork, and the very mistakes and peculiarities of spelling can reveal information about the translators or scribes of the texts. Punctuation has been modernized and sentence numbers have been added. Missing letters in words, and missing sentences or parts of sentences have been signalled by pointed brackets.¹⁴


¹⁴ An edition of the entire Sloane fragment (the Liber Antimaquis), together with a detailed comparison with the Arabic text, will be published in volume V of Hermes latinus, ed. P. Lucentini.
Iste liber est spiritualium operum aristotilis et est liber Antimaquis qui est liber secretorum Hermetis. Opera mira possunt operari per hunc librum et est liber antiquus septem planetarum.

Liber Antimaquis

Cuilibet populo septem climatum pertinet unus modus spirituum. Quia quilibet ibi habet partem suam per corpus et membra ita quod isti et iste ordinaciones ita spiritualia sunt secundum divisiones corporum planetarum septem et secundum gressus eius per 12 signa. Quia per ista poterimus intelligere eius fortunam vel infortunam quia de illis veniunt in mundum spiritus qui sunt visi ad quamlibet gentem septem climatum. Et quilibet planeta habet spiritum proprium qui descendit de eo et gubernat habitatores qui sunt in suo climate. Et quilibet spiritus contrarium et scissorem alterius planete cui adversatur in factus suis. Item quilibet illorum habet adiutorium alterius planete qui est de natura eius. Maior mundus est divisus in 12 partes et illud est celum. Et celum ambulat in circuitu per 12 signa. Signa autem sunt duodecim et planetae septem. Et isti sunt gubernatores mundi. Et terra similiter divisa est in partes duodecim sicut firmamentum est, de quatuor quadratis et septem membris. Quatuor quadrati sunt quatuor qualitates naturarum quae sunt calidum, frigidum, humidum, siccum. Septem membra sunt septem climata que sunt divisa per septem planetas que sunt gubernatores mundi. Et innunt virtutes suas et virtutes 12 signorum et suorum spirituum omnibus rebus terrestribus. Et sicut firmamentum est divisum in 12 signa, ita terra in 12 partes sic quod quodlibet signum habet potestatem in parte sua.

Aries est divisio terre de Zim usque ad finem terre quam incipit primus planetae. Taurus est divisio Acius et illud est templum Alboloth usque ad finem terre secunde planete. Gemini est divisio terre Morabis et est ab Foxell usque ad finem tertia planete. Leo divisio terre Romanorum et Annahius usque ad finem quarte planete. Leo divisio terre Romanorum et Annahius /fol. 106v/ usque ad finem terre quinte planete. Virginis est divisio Gibelyz et Gellach et Belhan usque ad finem sexte planete. Libra est divisio terre Babilonie et Adraygur (ad Raygur MS) et Fessen et terra Turcorum usque ad finem septime planete. Scorpius est divisio terre de Achivos que sunt Montana Achaaurus et terre eorum et habitaciones. Sagittarius est divisio terre Helicianios que est terra de Lalan Dorcha Echra et Hanilis terre orientalis et quod continentur in eis.
De amicitia vel inimicitia planetarum

[29] Item sciendum quod in mundo sunt quatuor anguli, scilicet oriens, occidens, septentrio, et meridies, et hii sunt divisi secundum quatuor qualitates,

[44] Pro cuius evidencia est sciendum quod quando unus planeta intrat domum alterius vel in suam exaltationem, turbat virtutem illius in suo climate, et mutat naturam alterius in suam. [45] Nam si unus planeta facit amiciciam cum alio, tunc gentes illius climatis habent amiciciam inter se. Si autem unus planeta facit inimiciciam cum alio, tunc gentes illius climatis habebunt inimiciciam inter se, et hoc contingit ratione virtutis et influenciarum a dictis planetis procedentum.


[44] Quando unus planeta intravit domum alterius aut suam exaltacionem, impediet virtutem eius in suo climate et mutabit naturam eius, secundum quod fuerit potestas eius in eo aut secundum quod fuerit amicus vel inimicus illius planete. [45] Quia iste septem planete habent amiciam et inimiciam et convenieniam et disconvenieniam, quidam cum aliis, ut videmus gentes unius climatis quod aliquando est amicicia (est) inter eos, aliquando inimiciam, propter virtutes spirituales /fol. 107v/ que a planetis veniunt.

[58] Iupiter quando intrat domum Saturni, facit temperale et docet hominibus illius climatis sapientiam et scientiam et eorum turbat infortunium, datque eis fortitudinem ex sua natura. [59] Et si intrat in sua exaltatione, generat in regibus bonam voluntatem erga populos illius climatis, et facient eis bonum et cum illis gaudebunt. [60] Si intrat domum Martis, auffert ab eo malam voluntatem quam habebat ad populos illius climatis, et non se interficiant, et concordabit eos et faciet esse bone voluntatis. [61] Et si intrat in sua exaltatione, faciet esse reges bone voluntatis erga populos et gaudebunt cum eis. [62] Si intrat domum Solis, crescit populus illius climatis magna sapientia et scientia, et erunt magni et acuti intellectus. [63] Et si intrat in sua exaltatione, faciet illos intelligere scientias quas intelligere et scire laborant et que antea nesciebant. [64] Et si intrat domum Veneris, concordabit populos illius climatis in eadem voluntate et bonum eis faciet et defendet ab eorum inimicis. [65] Et si intrat in sua exaltatione, gaudebunt populi cum eorum regibus, et erunt securi a pestilenцияs et infirmitatibus. [66] Si intrat domum Mercurii, illud clima omni bono habundabit, et erit fertile et bonum annum panis et fructuum habebunt gentes, et custodientur a pestilenцияs. [67] Et si intrat in sua exaltatione, permutabit eis malum regem pro bono, qui eos tenebit in iusticia et directo et eis faciet multum bonum. [68] Si intrat domum Lune, generalit in populus illius climatis magnum intellectum et subtilitatem. [69] Et si intrat in sua exaltatione, rex illius clime erit bene fortunatus et bone venture, et omnes populi gaudebunt cum eo.


[70] Si Mars intrat domum Saturni, facit quod populus illius climatis interficatur quidam cum aliis. [71] Et si intrat exaltacionem eius, facit populum climatis interficere regem suum. [72] Si Mars intrat domum Iovis, securat eum, nil mali faciens ei. [73] Et si intrat eius /fol. 109r/ exaltacionem <...>. [74] Si Mars intraverit domum Solis, devincitur ab eo, non potens ei facere malum aliquod. [75] Si Mars intrat domum Veneris, iuvat populum illius climatis ad interficiendum inimicos suos. [76] Si Mars intrat domum Mercurii, damnatur populus illius climatis contra regem suum et exponunt eum. [77] Et si intraverit eius exaltacionem, interficiet regem suum et interficietur <quidam> cum aliis. [78] Et cum Mars intrat domum Lune, non potest ei facere malum.

[79] Si Sol intrat domum Saturni, mittit illuc spiritum suum fortunatum; ita clima illud erit habundans et populus concordabit cum rege suo. [80] Et si intrat eius exaltacionem, dabit bonam voluntatem regi contra populum suum et erit supplicans eis et honorabit eos et gaudebit cum eis et ipsi cum eo. [81] Quando Sol intrat domum Iovis et eius exaltacionem, crescit populo illius climatis magnus intellectus, sapiencia multa et bonum. [82] Cum Sol intrat domum Martis, custodiet populum illius climatis cum suo spiritu fortunato et aliquod facient malum quibusdam aliis. [83] Et quando intrat eius exaltacionem, dat regi bonam voluntatem contra populum suum et populo contra regem. /fol. 109v/ [84] Si Sol intrat domum Veneris, dirigit populum
Barcelona MS


Hii enim planete eorum spiritus et virtutes quas recipiunt a .xii. signis zodiaci, transmitunt omnibus rebus creatis secundum astrologos.
illius climatis ad omne bonum, faciens eos veraces et legales et mittit pacem inter eos. [85] ... [86] ... > [87] Et quando intrat eius exaltacionem, populus illius climatis recipiet placitum a rege suo. [88] Quando Sol intrat domum Line, crescit bonum illius climatis et sapientia et potestas.


[99] Mercurius quando intrat domum Saturni non impedit populum suum < ... > [100] Quando Mercurius intrat domum Loeis, faciet eius contrarium et quod habebunt potestatem super alios. [101] Et quando intrat suam exaltacionem, mittet discordiam inter populum et regem in suo climate. [102] Et quando intrat domum Martis, est damnum populo illius climatis et non diligent se et mittet inter eos terorem et metum, paupertatem et malum. [103] Et quando intrat exaltacionem, mittit guerram inter populos et interficiuntur sine causa <[104] ... [105] ... > [106] Et quando Mercurius /fol. 110v/ intrat domum Solis, erit illud clima habundans bonis. <[107] ... >

Scandinavian Runes
in a Latin Magical Treatise

Postscript by Marie Stoklund

* Manuscript Sloane 3854 of the British Library is of interest because it contains the fullest known Latin version of an important Arabic Hermetic treatise concerning astral magic.¹ The original work, the kitāb al-Iṣṭamāṭis, was a source of the best-known medieval compendium on magic, the Ghayat al-Hakīm (known in its thirteenth-century Latin translation as Picatrix). Hermann of Carinthia in 1143 cited a passage from al-Iṣṭamāṭis in Latin, and William of Auvergne appears to have known the work in the early thirteenth century.² Sloane 3854 provides evidence that a large portion at least of al-Iṣṭamāṭis was translated into Latin. The heading of the work in the manuscript is:

   Iste liber est spiritualium operum Aristotelis et est liber Antimaquis qui est liber secretorum Hermetis. Opera mira possunt operari per hunc librum et est liber antiquus septem planetarum. Liber Antimaquis.³

   (This book belongs to the spiritual works of Aristotle, and it is the book Antimaquis, which is the book of the secrets of Hermes. Wonderful works can be effected through this book and it is the ancient book of the seven planets. The book Antimaquis.)

* Sloane 3854 is of fourteenth-century Italian provenance. The four gatherings which contain the work (together with a fragment of salacious novelle with topical Italian references) have evidently been taken from another manuscript. They have been subjected to some confusion, perhaps deliberately engineered by the “magician”: folios have been sewn into the gatherings in the wrong order, and two gatherings have been interchanged. More-

I should like to express my gratitude to Dr. Ray Page of Corpus Christi College, Cambridge; to Professor Paul Kunitzsch of Munich; and to an anonymous referee for reading a previous draft of this article and providing helpful comments and information.

³ Sloane 3854, fol. 105v.

I. Magic rings; the Conte de Sarzana Magical Manuscript, p. 96.
THE EARLIEST CHIROMANCY IN THE WEST

The practice of reading the future, or divining the character and disposition of a person from the lines and other indications in the palm of the hand, is ancient and widespread. For the classical tradition we have references in Artemidorus, Pollux and Suidas. 1 An observation by Aristotle in his Historia animalium 1.15 concerning the significance of the lines in the palm added a certain respectability to the subject. 2 However, the practice remained at a popular level of culture. No treatise appears to have survived from classical times. The only Greek text known has been transmitted in two manuscripts of the thirteenth and the fifteenth century respectively, 3 and there is no way of telling how much the text predates the earlier manuscript.

The detailed investigations of Craig, 4 Thorn-dike, 5 Pack, 6 and Schmitt and Knox 7 have turned up no Latin manuscript on the subject earlier than the thirteenth century. Moreover, even references to the practice of chiromancy in Latin works appear to be absent between classical times and the mid-twelfth century. 8 John of Salisbury, in his Policraticus, refers to

1 The references to chiromancy in Greek works have been conveniently brought together by F. Boll in Catalogus codicum astrologorum Graecorum vii, Brussels 1908, pp. 235–37.
2 Hist. anim. 1.15, 495b32: ‘The palm of the hand is fleshy and divided by lines – one or two passing across the whole palm for those who live long, two lines which do not pass right across for the short-lived.’
3 Ed. F. Boll, op. cit., pp. 237–44. The Greek text includes the astrological dimension found in Craig’s classes ii and iii (see n. 4 below). There is an Arabic tradition of palmistry-treatises (e.g. MSS Berlin, Ahlwardt 4255–8) but this appears to have no relevance to the Western tradition. For Hebrew chiromancy see the article on ‘Chiromancy (Palmistry)’ by G. Scholem in Encyclopaedia Judaica, v, 1971, cols 477–79.
8 Juvenal (Satire vi.585) refers to a client presenting his forehead and hand to soothsayers; Pliny, Nat. hist. xii, 114 cites Aristotle’s statement (n. 2 above). Neither the current medieval Latin dictionaries nor Pack in his survey of medieval lists of condemned divinatory practices (‘Pseudo-Aristoteles: Chiromantia’), as in n. 6 above, pp. 289–91) attests to another reference to chiromancy before the De divisione philosophiae of Dominicus Gundissalinus (written c. 1160); ed. L. Baur, pp. 119–20: ‘cum enim multe sint scientiae iudicandi de proposita questione ut ... ciromancia in manu, et multe alie ... hec [sc. astronomia] ceteris dignior est ... ’ and John of Salisbury’s Policraticus (see below). These two works are the earliest texts in which the terms chiromantia and chiromantia appear in Latin. Neither the practice nor the terms are mentioned in Hugo of St Victor’s Didascaliae. The appearance of the term chiromantia in the mid-twelfth century might be compared with the adoption, at about the same time, of the word geomantia for a kind of divination which was being introduced from Arabs — the ‘ilm al-raml’ or ‘sand-divination’ (see T. Charmasson, Recherches sur une technique divinatoire: la géomancie dans l’occident médiéval, Geneva–Paris 1980). The use of the word chiro (from Greek khiro) for hand or palm is universal in the early Latin texts, but has not been noted in the published dictionaries. Unless it can be shown that Latin chiromancy derives from Greek — for which at present there is no evidence — I would attribute the use of this word to the same scholastic trend which substituted Greek terms for Arabic in scientific translations from Arabic of the twelfth century (e.g. the above-mentioned geomantia, terms such as telematica, geneologia in astrological works, and parallelogramma and isosceles in geometry).
chiromancy as a new form of divination which has lately sprung up. The Poliatericus was completed in 1159, and it is at precisely this time that a hitherto unnoticed text on chiromancy was copied into a Latin manuscript at Canterbury — the so-called Eadwine Psalter (henceforth Ead). This chiromancy (henceforth chiro.A) is not unknown. It is found in Oxford, Bodleian Library, MS Ashmole 399, fol. 16v–17r (B: Pl. 50), ibid., fol. 60v– A (V), British Library, Sloane 2090, fol. 125–26 (S), and Sloane 323, fol. 189r–191r (Z). Of these, text B in Ashmole 399 — a late-thirteenth-century deluxe edition of works on divination and medicine whose detailed illustrations are well-known — is closest to Ead. Nevertheless the readings of Ead seem to be more dependable than those of any other manuscript. Ead lacks the illustrations of the hands that are found in the other manuscripts. These, however, are not referred to in the text, and it is possible that they are subsequent to chiro.A in that phrases from them are used in the rubrics to the hands.

The addition of the word etc at the end of the text in Ead might suggest that this copy is incomplete. However, all the other manuscripts of chiro.A end in the same place, with the exception of S which continues with a completely new (though related) text (chiro.A2) which will be mentioned again below. Ead is obviously a neat copy of another exemplar — the errors palice: for palme: attests to this — but we appear to be close to the source of the tradition of chiro.A.

Is it possible that chiro.A is the earliest form of a chiromancy in the West, and is there a possibility that its occurrence in a Canterbury Psalter of c. 1160 is not accidental? In comparing chiro.A with other medieval texts on chiromancy one is struck by its

9 Poliatericus. ed. C. C. J. Webb. Oxford 1909, 1:50: 'Varro autem curiosissimus inter philosophos quattuor species divinatian ab elementis mutuata est, piro-mantiam scilicet, aerimantiam, vdrromantiam et geomantiam, multasque species videbis ex his capitibus; crucem nona exempli causa vel paucia subiciam.' ibid., 1:12, p. 52: 'Chironomantici sunt qui a manuum inspectione rerum vatianciant abscindat.'

10 The MS is at present Cambridge, Trinity College R.17.1 and has been reproduced in facsimile in M. R. James, The Canterbury Psalter, London 1935. Recent scholarship places the completion of this elaborate Psalter in c. 1160. The chiromancy together with an onomancy have been added at the end of the manuscript by one of the scribes who has copied the Psalms. This chiromancy is edited and translated in the Appendix.


12 See Ashmole 399, fol. 17r (Pl. 50) for a particularly fine example of the hands.

13 Chiro.A, 29 corresponds to a rubric on the thumb of the right hand, reading: 'Hec sunt signa fideltatis et infidelitatis, quae si coeunt, infidelitatem et suspensionem signant' (S, fol. 126v); chiro.A, 51 corresponds to a rubric referring to lines at the base of the little finger of the right hand: 'Hec sunt signa vulnerum corporis infra genua — magna futurorum, parva præteritorum;' for chiro.A, 52 see the rubric to similar signs at the base of the middle finger: 'Hec sunt signa vulnerum corporis — lata futurorum, subtilia præteritorum.' It is possible that the space at the bottom of the second column on fol. 282 of Ead was intended for the hands. Hands with the same rubrics accompany tracts on palmistry other than chiro.A (e.g. the text in Parâ B 155; Thorndike, as in n. 52, p. 678), which suggests that the tradition of the illustrations should be considered separately from that of the texts.

14 The texts used for purpose of comparison are the following: I Chiro.A2, incipit: 'Tres sunt fideles linee in planicie cyros...'; Sloane 323 (Z), fol. 191v–. II Chiro.B1, incipit: 'Linee naturales tres sunt in planite omnis ciros...'; Cambridge, Trinity 0:2:5, fol. 128v–130v (T), ibid., fols 212v–216v (U), Schlagl, Stiftsbibliothek 144, fols 46–47 (S), Paris BN nouv.acq.iat. 893(P), fols 96v–97. This version is attributed to 'Adelardus' in SP (P). 'Sciumd est tamen quod quaedam ars reperta est naturalis a quodam philosopho Eadumundo qui antea fuerat Saracenus et vocabatur Maneanus, sed trans-subiit hanc artem Magister Adelwardus de Greco in Latinum'; S'.... et reperta philosopho qui Saracenus vocatus est et est translata ad nostram lingwam per Magistrum Adelardum.' If a connection can be made with Adelard of Bath (c. 1080–1152) this would place this chiromancy earlier than chiro.A and the references in Gundissalinus and John of Salisbury. However, the attributions sound manufactured, Adelard never translated from Greek, and in discussing why the fingers are of unequal length and the palm is concave in his Quaestiones naturales (ed. Müller, pp. 40–41) Adelard shows no evidence of being interested in palmistry. Nevertheless the attributions must have been made whilst the name of the translator Adelard was still fresh in people's minds; i.e. in the twelfth century rather than the fourteenth. III Chiro. B2, an abbreviated and edited version of chiro. B1, printed as the first part of Liber cheirumantiae incerto autore with Antiachii Tiberii Doctoris de cheirumantia libri III, Mainz 1541 (incipit: 'In principio cheirumantiae scien­ dum est...') IV Chiro.B3 is the second and longer part of the Liber cheirumantiae incerto autore (incipit: 'Nota de triangulo. Trianguius aequilaterus fidelem...')
The data are written down stenographically, without elaboration, and with little attempt at explaining terms or ordering the material. Some terms are unproductive in other chiromantic works: e.g. the middle fingers are numbered from the smallest (Secundus a minimo, tertius a minimo), the hollow of the palm is called the fovea (elsewhere concavitas), the blade is the conus percussionis (elsewhere conus ictus), and the flat part is the mensa (elsewhere tabula). No sentences seem to be lifted from other known chiromancies. The note form and haphazard arrangement of the material suggest that the author was jotting down common lore, which included some discrepancies (alternative opinions are introduced by secundum quosdam), and is close to oral sources.

The appearance of chiro.A in a psalter is surprising. All the other texts on chiromancy mentioned in this article are found in manuscripts of popular science and divination, and are often adjacent to physiognomies. However, a notable feature of chiro.A is its references to matters of interest to the clergy:

39 A cross ... in another part of the flat part (denotes) confession.

10 If around the foot of the first natural line (a mark) like a 'c' should occur — this is of this sort: he will be a bishop.

45 If a kind of triangle lies next to it in the flat part it denotes a prebend.

The only other chiromancy which refers to the Church so directly is the brief additional text appended to chiro.A in Sloane 323 (chiro.A2):

59 When it extends as far as the first finger, he will be a monk.

71 This mark is the sign of a parish income (preshbyterium).

80 This is a sign of someone being elected or freely blessing.

chiro.D (see below). V Chiro.C precedes chiro. A in Bodleian, Ashmole 399 on fol. 50v (incipit: Tres sunt lineae naturales omnis chiros ...). VI Chiro. D and VII Chiro. E are the texts edited by Pack, as in n. 6 above. All these texts belong to classes I and IV in Craig's classification scheme (see n. 4 above). In the case of all the texts except those edited by Pack the references are to the sentences of my own transcripts.

15 E.g. Ashmole 399 includes a physiognomy on fols 1–13v, and the onomancy known as ‘The Victorious and the Vanquished’ on fol. 59v; in Cambridge, Trinity 0.2.5 and Sloane 323, the chiromancy follows a physiognomy.

81 This is a sign of someone despising the clergy.

86 This sign is of a blessing: this of a curse. Among the rubrics on the illustrated hands (some of which, as we have seen, correspond to sentences in chiro.A), there are:

2 This sign signifies the sign of the staff (bacul; possibly corresponding to chiro.A, 10).

21 This line beside the triangle, if it is quite long, is a sign of a good confession.

In other works on palmistry the ecclesiastical relevance appears to be deliberately toned down. Instead of ‘a sign of a good confession’ we find ‘a sign of a good conversion’. At the end of chiro.B3 we read:

If, in the hand of a peasant the sign of a bishopric is found, one should not say that he will become a bishop or a prelate, but that he will have honour according to his estate.

Are we justified in seeing an ecclesiastical context for the writing-down of chiro.A?

It is one of those nice coincidences that the only instance of the practice of chiromancy that is known in the twelfth century could be related precisely to Canterbury, and to the year 1157. The context, once again, is John of Salisbury’s Policraticus. In chastising Thomas Becket for
believing in soothsayers John claims that the future Archbishop of Canterbury consulted a chiromancer before setting out on an expedition against the inhabitants of North Wales. 20

20 Poliorcetius II.27 (ed. C. C. J. Webb, 1.143): 'Chiromantici quoque vera quae in rugis manuum latent se nosse gloriantur. Quorum errorem, quia ratione non nititur, non necessae est rationibus impugnare, licet eo ipso illos expugnet ratio quod deficient ratione... Cum adversus Nivicollinos Britones regia esset expeditio producenda, in quo te consultus aruspex praemonuit?... Item chiromanticus adhibitus et consultus quid contulit?'

Webb, the editor of Poliorcetius, suggests that this was the expedition that Henry II embarked on in 1157. Could Becket’s chiromancer have been reading in Ead that ‘If from the middle of the second finger to the table a strong rod passes through, it indicates as many captures as rods’, or ‘If another line descends from it towards the index finger, it shows that he will die in foreign parts?’

APPENDIX

The Chiromancy in Cambridge, Trinity College, MS R.17.1, fol. 282⁴ (Ead)

I have tried to provide a faithful transcription from Ead, occasionally relegating to a footnote an obviously incorrect reading. Readings from the other MSS (listed above p. 190) are given only when they serve to clarify what may be a misreading in Ead, or when they offer an interesting alternative. Editorial additions are placed in pointed brackets, deletions in square. The scribe is inconsistent in representing classical ae, writing both letters on one occasion (æ8 iuncturate), but otherwise varying between e with cedilla and e without cedilla. I have rendered all e-cedillas as ae.

1. Lineae naturales ii. sunt in planitie omnis chyros. 2. A pede igitur superioris lineae rimula directa versus mediam, et ab illa alia obliquata versus eandem, triangulum facit, et superior linea trianguli vitam pro quantitate sui metitur. 3. Si vero ipsi obliquate inhereat extra apertum, furti naturaliter argumentum est. 4. Si strictum anguli vacuo fuerit, honestae mortis signum est. 5. Si vero ante finem anguli transverso rimula transierit, et ab illa usque ad finem alia dirigatur, armis mori ostendit. 6. Sed si transversam fonderit, et finem transierit, aqua vel igne mortem venturam denuntiat: versus finem longior, aqua; superius, igne. 7. Si in latitudine trianguli hoc signum fuerit, signum est matrimonii; si inequalis, adulterii. 8. Et si aliquam istarum non pervenientem ad medium
naturalem rimula ex media naturali veniens in capite tetigerit, suspendetur. 10 Si circa pedem naturalis prime quasi .c. fuerit huiusmodi — episcopus erit. 11 Si iuxta ipsum alia extensa in summitate sui versus foro rimula[m ita]lem habuerit, rex. 12 Si ab illa rimulae procedentes inferiorius respiciant, divicias nuntiant. 13 Si iuxta pedem ipsi quasi 4 o. c. adherant, superculorum (fraterculorum vel testicularium B) amissio. 14 Si .ii.r virge BAS ipsi in capitis suis afigantur, et una virgula eas per medium findat, — lepram. 15 Si eidem vel ei qui triangulum facit talis curvatura apponatur, eam quam super habuerit habere certificat. 16 Si a pede prime naturalis vel ab alia pede venientem rimula procedens versus conum exierit, peregre ibit. 17 Si prima naturalis a sui apponatur, earn quam super habuerit habere certificat quasi .c. fuerit huiusmodi extransverso transiens matern patri preponit. 18 Si a pede prime naturalis vel ab alia lineas pollicis parentele indicas (indices BAS, ii.r) inter duas iuncturam parentelae indicas (indices BAS) — cito rimulae fortiter finderint, matris lectum parvit, paucam et parvam. 21 Si in fovea chyros quasi duo .c. connexa fuerint, in duello vel in bello hominem interficiet. 22 Si montem manus rimula versus pollicem tendens fortiter finderit, consanguinitatis violabit. 23 Si mons /fol. 282b plenus est rimulis, ab infirmitatibus plenus est rimulis. 24 Si montem manus rimula versus pollicem tendens fortiter finderit, consanguinitatis violabit. 25 In indice (et invidi diam A) lineam finem respiciens patrem matri, extransverso transiens matrem patri preponit. 26 Si has lineas pollicis parentele indicas (indices BAS) .ii r. rimulae fortiter finderint, matris lectum violabit. 27 Post has lineas si in ultima iunctura pollicis subitus ipsum (ipsam B) supra lineam iuncturae hec figura 21 apparuit, matrem vel germanam corruptem. 28 Si hec eadem linea iuncturae fortiter sine interruptione pollicem cinxerit, suspendetur. 29 Hec eadem fidelitatis et infidelitatis index est: si fere cingat, infidelitatis; si non, fidelitatis. 30 Unguis pollicis recurvus per reach the middle natural line, he will be hanged. 10 If, around the foot of the first natural line, (a mark) like a 'c' should occur — this is of this sort: — he will be a bishop. 11 If, beside it, another crease extending at its highest end towards the hollow part has such (a figure): he will be a king. 12 If creases from that line look lower down, they announce riches. 13 If, by its foot as it were two 'o's stick to it, (it signifies) the loss of his testicles or little brothers (B). 14 If three rods are fixed (to each other) by their ends, and one little rod cuts them through the middle — (it signifies) leprosy. 15 If such a curved shape is next to it or to that which makes the triangle, it asserts that he has that (girl?) which he had before. 16 If a crease runs from the foot of the first natural line or from another foot, towards the 'cone', he will go on a journey. 17 If the first natural line is red from its middle to its foot, (it signifies) a pain in the head. 18 If it is red from its middle to its end, it reveals pain in the neck. 19 When the Life Line proceeds from it, if it is like that in the beginning, (it signifies) pain in the heart. 20 The last natural line like this in its end indicates pain in the belly. 21 If, in the hollow part of the hand there are as it were two 'c's connected together, he will kill a man in a duel or in a battle. 22 If a crease stretching towards the thumb strongly cuts the 'hill' of the hand, it is the pleasure of relationship, or, according to some, vehement anger. 23 If the 'hill' is full of creases, it shows that he will (quickly B) escape from illnesses; if it has few, the contrary; or, according to some, if there are many, it bodes good fortune in his flocks; if not, then not. 24 Between the two joints of the thumb on the side facing the 'hill', if many large creases pass transversely, it shows a great and numerous number of kin; if the creases are few and small, the number of kin is small and few. 25 On the index finger a line looking towards its end places the father above the mother; if it passes transversely, it places the mother above the father. 26 If two creases strongly cut these lines of the thumb indicating kin, he will violate his mother's bed. 27 After these lines, if, in the last joint of the thumb underneath it, above the line of the joint, this figure appears: he will corrupt his mother or sister. 28 If this same line of juncture circles the thumb strongly without interruption, he will be hanged. 29 This same (line) is an indication of faithfulness and unfaithfulness: if it almost circles (the thumb) it indicates unfaithfulness; if not, faithfulness. 30 If the nail of the thumb is uncurved
naturam nummosum innuit. 31 In cono percussionis manus lineae abintus vel everso venere si multae et non implicitie fuerint, honestatem; si paucus vel implicite, paucitatem denunient. 32 Si in ipso cono hec figura G extra versus dorsum resperexerit, patricia vel saltem proximica et fratricida vel sormicida (sororicida AS). 33 Tali signo quasi sagittata (sagitta AS) ab ipso cono intus acumen suum porrigrigente , quotquot rimule mediam naturalem divisereunt, sive inferiorum tangant sive non, pueros denunciunt; si non, alterius rei note. 34 Rimule eadem naturali adherentes sive supra sive infra recte levem, arcuate et minus apparentes gravem — licet occultam — iram (rem AS) manifestant. 35 Hoc idem est, in superiori divise a medio loco extra[a]. 36 Si in media naturali quasi punctum unum appaeretur, unum oculum amittet; si duo, duos. 37 Si vero supra se in fovea quasi G/ incepert, et per ipsam transiens in mensa cornua posuerit, nota quidem est conversio-nis. 38 In quacumque sui parte magis ab ultima desisterit eo tempore vite plus felicitatis ostendit vel portendit. 39 Et si ipsi circa finem sui in ipsa mensa quasi crux +. adiaceat, vim notat; domi-nanda (dominantis S) alibi in mensa, confessione,m., vel secundum quodam luxuriam. 40 Si ultima linea naturalis gradatim versus indicem descenderit, gradatim felicitatem accumulat. 41 Si quasi subito se precipitaverit, subitum bonum amplificat. 42 Si vero sursum tetenderit, con-trarium operatur, nisi alia subitus probihebat. 43 Hec eadem sursum tendens labore proprio degere non negat. 44 Et si ab ipsa, alia versus indicem A descenderebatur (AS) mori in exoticis arguit. 45 Sed si ipsi in mensa quasi triangulos adiaceat A/ prebendam notat. 46 Si autem a media secundi. [o] ad ipsam fortis virga transeant G, in viris (innuit S) tot captiones quot virge; in mulieribus partus hoc idem notat hec figura G; et si intus ad mensam magis quam extra se sparsiter, tanto graviorem captionem pronuntiabit. 47 Et si in mensa hoc signum apparuit,3 humani sanguinis by nature it indicates a moneyed man. 31 In the 'cone' of the blade of the hand lines coming from within — or vice versa — if they are many and not intertwined, announce honourability; if they are few and intertwined, niggardliness. 32 If, in the 'cone' itself, this shape G looks out towards the back, (he will) kill his father, or at least kill a relative or a brother or a sister. 33 Such a sign, as if in the shape of an arrow, stretching from the 'cone' itself within its peak , however many creases divide the middle natural line, whether they touch the lower one or not, announce boy children; if not, they denote the other alternative. 34 Creases attached to the same natural line — whether they are above or below — when straight they reveal an insignificant matter, when arched and less apparent, they reveal a serious — though hidden — matter. 35 It is the same when in the case of the superior (line) the (creases) are divided from the middle point outwards. 36 If, in the middle natural line, a kind of single point appears, he will lose an eye; if two, both (eyes). 37 But if in the hollow part above it a kind of g, begins (to be formed) and, passing through the line, it places its horns on the flat of the hand, it is a sign of conversion. 38 On whatever side it is more distant from the last line, it shows and portends more happiness at that time of life. 39 And if round about its end in the flat part itself a kind of cross lies next to it, it denotes force; if it dominates in another part of the flat part, (it denotes) confession, or, according to some, profigacy. 40 If the last natural line descends gradually towards the index-finger, he gains in happiness gradually. 41 If it launches itself in a sudden way, it increases a sudden boon. 42 But if it tends in an upward direction, the opposite is the case, unless another line below prevents it. 43 This same line tending upwards does not deny that he will live his life by his own labour. 44 And if from it another line descends towards the index finger it proves that he will die in foreign parts. 45 But if a kind of triangle lies next to it in the flat part — it denotes a prebend. 46 But if from the middle (line) of the second (finger) a strong rod passes through it — there are as many captivities as rods; in women this same figure denotes childbirth; and if it has distributed itself more on the inside of the flat part than on the outside, it will announce a much more serious captivity. 47 And if in the flat part this sign appears, it proves the thirst (AS) for human

1 Bends here.
2 S adds: Si paue et parve, paue et parentem etiam invidiam, non pueros.
3 Sign missing.
factum (sitim AS) probat. 48 Hoc signum in mensa conversum existens 8, meretricem figurat. 49 Et secundum quosdam si ab ultima linea non directe sed oblique per mensam ad medium naturalem rimulam se porrexerit, quandoque exhereditabitur tarde, vel non. 50 Secundum loca mense inter ultimam lineam naturalem et quantitatem auricularis rimulae parve sive transverso sive ex directo positae, vulnera brachiorum vel manuum significant. 51 Et a fine minimi usque ad finem secundi rimule simili modo dispostae, vulnera pedum vel crurium designant. 52 Et a fine secundi aut minimo usque ad finem tercii rimulae etiam parvae tantum sursum tendentes, vulnera corporis (capitas AS) producunt — ubi autem illi tres digitae palmae coniunguntur. 53 Si rimule eorum medietate diviserint, vulnera in lateribus indices sunt. 54 Rimula ab ultima naturali ad quartum digitum directa pro sui pressura et sui fortione et ad AS medium digitum porrctione[m] amplioris ingenii et pluriunm et profundarum scientiarum nota est. 55 Post istam inter ultimam naturalem et auricularem talis virga exiens comitatus est. 56 Ibidem hoc signum Q, existens, fatetur proximicidiam. 57 Et hoc signum sursum naturalem respiciens, 9 mori cybi penuria; circa eadem loca baculus episcopalis P, castitatem; hoc signum Θ alicubi, pedum amissionem. 58 De occultis alius agetur. (later hand) etc.

blood. 48 This sign turned into the flat part — Q — depicts a prostitute. 49 And, according to some, if a crease extends from the last line — not straight but inclined — through the flat part to the middle natural line, he will be disinherited some time later, or not. 50 Little creases placed transversely or directly along the flat part, between the last natural line and the size (hill?) of the little finger, signify wounds of the arms or hands. 51 Creases in a similar position from the end of the little finger to the end of the second finger indicate wounds of the feet or legs. 52 And from the end of the second or little finger to the end of the third finger creases — even when they are only small — tending upwards produce wounds in the body, where those three fingers are joined to the palm. 53 If the creases divide (cross) their middles, they indicate wounds in the side. 54 A straight crease from the last natural line to the fourth finger, according to its pressure and strength, and by stretching to the middle finger, is a sign of greater intelligence and more and deeper knowledge. 55 Behind this line such a rod going out between the last natural line and the little finger is (a sign) of having company. 56 This sign — Q — existing in that place, acknowledges a slayer of his kin. 57 And this sign looking above the natural line 9 (indicates) death because of lack of food; round about the same spot a bishop’s staff — P — indicates chastity; this sign — Θ — in some place (indicates) the loss of feet. 58 Hidden things are * discussed elsewhere.

4 read montem?
5 nisi Ead.
6 palicie Ead.
7 Sign missing.
9 Sign missing.
The Hands; MS Paris, Bibliothèque nationale, n.a.l. 693 (=P), fols. 95v–96r.
Chiromancy: Supplement

The Principal Latin Texts on Chiromancy Extant in the Middle Ages

I

The preceding article has established that the Latin literary tradition in chiromancy dates back at least to before c. 1160, and not to the thirteenth century, as claimed in previous scholarship. There are four mutually independent sources that can be identified as standing at the beginning of this Latin tradition:

I The Eadwine Chiromancy (Chiro.A; edited above). This is a list of signs occurring in different parts of the hand, without a general description of the hand or an account of the significance of each of the natural lines.

II The Sloane Chiromancy (Chiro.A2; edited below), occurring only in MS British Library, Sloane 323. This gives a very brief description of the indications of each of the three lines, followed by a list of signs whose indications are not governed by their position on the hand. It is conspicuous for its strange vocabulary ('prodice, 'co(r)ponosius' and 'scyros' for the three natural lines; 'alius' apparently for 'second').

III The Adelard Chiromancy or Chiromantia parva (Chiro B 1; edited below). This is the first chiromancy that clearly arranges the material according to the natural lines and the triangle formed by the first three natural lines. In two out of the four known manuscript copies it is attributed to Adelard of Bath.

IV The Hands. Diagrams of the right and left hands, with signs and their indications written on them (edited below; see Plate). Although the indications occasionally correspond to those described in the Eadwine Chiromancy, the wording is not the same, and different information is given on the Hands than in any of the three chiromancies listed above.

The Sloane Chiromancy does not seem to have had any influence. Both the Eadwine and the Adelard Chiromancies were added to the Hands, and all three of these sources were used in later chiromancies. These are as follows:

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1 I am very grateful to the help of Dag Nikolaus Hasse, Danielle Jacquart, Annelies Kuyt, Clare Woods and Irene Zwiep.
V The *Ars chiromantiae* attributed to Aristotle, edited by Pack in 1972,² and described in Schmitt and Knox's *Pseudo-Aristoteles Latinus* as *Chiromantia II*,³ is a compilation from the Eadwine Chiromancy, the Adelard Chiromancy and another text or texts. Its compilatory nature is already stated in the title given to the text in MS Bern, Burgerb. 353, fol.1r: ‘Incipit ars ciromancie ex multis compilata’. After a preface defending the practice (which may be original) the compiler simply copies passages from other works, which can be distinguished as follows:

i) The Adelard Chiromancy is the principal work copied. Almost the whole work is included (only passages about women’s hands 13, 39, 42–45 are omitted).

ii) The Eadwine Chiromancy provides the author with many of the indications of the signs in the hand. E.g., end of c.6 = 18; second half of c.7 = 10–14; beginning of c.8 = 36; end of c.10 = 2–3, 5–7; middle of c.11 = 26–9.

iii) A yet unidentified source (unless this is original) provided the compiler with his theory of the ‘linea prosperitatis’ which ‘some books do not mention’.⁴ This is the source for chapters 4 and 9 and possibly chapter 5 in Pack’s edition, and appears to have provided the compiler with his favoured terms for the lines: ‘linea vitae’, ‘linea mensalis’, ‘linea tabularis’ (as well as the aforementioned ‘linea prosperitatis’). This source may in turn have used the Adelard Chiromancy, since two of the indications from that chiromancy are repeated, once with ‘Adelard’s’ terms (chapter 10), and once with the anonymous source’s terms (chapter 5).

The copying of different sources results in some repetition (e.g., the indications for the loss of one or two eyes is taken from the Eadwine Chiromancy in chapter 8, but from the Adelard Chiromancy in chapter 10). It also results in a multiplicity of names for the lines and the parts of the hand. Pack argues that the *Ars chiromantiae* was written after the death of Albertus Magnus (1280); the earliest manuscript dates from the fourteenth century.

VI The John of Seville Chiromancy. This is the chiromancy attributed to Aristotle, edited by Pack in 1969,⁵ and described in Schmitt and Knox’s

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Pseudo-Aristoteles Latinus as Chiromantia IV. It is an elaborate scholastic text on chiromancy which includes the information found in the Adelard Chiromancy and the Hands but incorporates it into a well-composed treatise. Two manuscripts, Klagenfurt, Bischöfliche Bibliothek, XXX.d.4 and Bern, Burgerb. 353, name 'Johannes Hispalensis' as the 'causa efficiens' of the text, and a postface in the Klagenfurt manuscript, entitled 'Translatoris verba', states that the work was translated from Arabic by him. But this postface merely reproduces the preface to John of Seville's translation of part of Pseudo-Aristotle's Secret of Secrets. The latter work was extremely popular and included a physiognomy. Since chiromancy is the physiognomy of the hand, it may be for this reason that this Chiromancy is attributed to Aristotle in three of the six manuscripts known. At the end of the text in the Bern manuscript, and after the postface in the Klagenfurt manuscript, is a passage on the preparation of the hand for inspection and some general points, which is closer to the text of the Adelard Chiromancy than the equivalent passage in the Ars chiromantiae. The earliest manuscript of the John of Seville Chiromancy is of the fifteenth century.

Richard Pack states⁶ that the John of Seville Chiromancy is, in turn, the source of VII, an epitome by Rodericus de Maioricis (Tractatus cyromancie), which was copied and attributed to 'John the Philosopher' in a manuscript which Lynn Thorndike used for his edition of the work in Speculum, 40, 1965, pp. 684-706. There is a great similarity too, between the contents of (1) the John of Seville Chiromancy, (2) VIII, the 'earliest known book of palmistry in English' edited by Derek Price,⁷ and (3) IX, the Summa chiromantiae, attributed variously to 'John (Regiomontanus)', 'Richard', and 'Aurelian', which was much-copied, and translated into English by John Metham.⁸ Hardin Craig claims that another text on chiromancy, X, beginning Secantur (or Distinguunt) scientiae inter se quemdum res de quibus, res aut ex quibus scientiae..., is an 'amplified treatise of the same general plan and content as the Summa chiromantiae.⁹ In the Summa chiromantiae the 'mounts' of the fingers are assigned to the planets; this astrological aspect is developed in the treatise beginning Secantur scientiae...

That this Latin tradition depended on any earlier Greek or Arabic texts has not yet been demonstrated. The only earlier literary tradition in chiromancy so far discovered in the Mediterranean area is in Hebrew, in which the earliest texts date from the fourth century A.D.¹⁰ The

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⁹ Ibid., pp. xxvi-xxvii.
¹⁰ G. Scholem, article 'Chiromancy (Palmistry)' in Encyclopaedia Judaica, V, 1971; idem, 'Hakkarat panim we-sidre sarțuțin' ('Physiognomy and Chiromancy') [in
The attribution of the Adelard Chiromancy is more cogent, considering that the treatise stands at the beginning of the Latin chiromantic tradition. However, the style does not match that of Adelard’s known translations from Arabic, and there is no evidence that he translated from Greek. All that the attribution might suggest is that this chiromancy originated in England where the earliest manuscripts of the Eadwine Chiromancy and the Hands are also to be found. Unlike in other literary traditions, these Latin chiromantic texts do not seem to have developed from sections on the hand in physiognomic texts. The discovery that the earliest forms of Latin chiromantic texts were simple sets of instructions, sometimes merely written on the hands, suggests an oral origin of the literary form, and it might be futile to look for literary precedents in another language.

Since there is so much variation between manuscripts, and little sense of a ‘canonical’ text, it is difficult to establish a critical text. Many problems of interpretation remain. The editions and translations that follow are provisional. < > indicate editorial addition; [ ] editorial deletion; ( ) translation of an alternate passage, or translators addition.

Hebrew], in Sefer Assaf, 1953, pp. 459–95; and P. Schäfer, Hekhalot-Studien, Tübingen, 1988, pp. 84–95. These texts belong to the tradition of Merkavah mysticism and bear little resemblance to the Latin texts discussed here.

According to the David Pingree (personal communication) this was the case in Sanskrit.

For a parallel literary development of a technique from simple instructions to a fully-fledged scholastic treatise see the case of rhythmomachy, fully documented in A. Borst, Das mittelalterliche Zahlenkampfspiel, Heidelberg, 1986.
The Terminology of the Texts

<table>
<thead>
<tr>
<th></th>
<th>Eadwine</th>
<th>Sloane</th>
<th>Adelard</th>
<th>Ars</th>
<th>John of S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The natural lines</strong> (the word ‘linea’ is assumed where necessary):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life line</td>
<td>vitae</td>
<td>scyros?</td>
<td>dextra</td>
<td>vitae</td>
<td>vitae/dextra</td>
</tr>
<tr>
<td>Head line</td>
<td>media</td>
<td>produce?</td>
<td>superior</td>
<td>tabularis/</td>
<td>mediana/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mediana/</td>
<td>sinistra</td>
</tr>
<tr>
<td>Heart line</td>
<td>prima/</td>
<td>co(r)pono-</td>
<td>mensalis</td>
<td>mensalis</td>
<td>ultima/mensalis/moralis</td>
</tr>
<tr>
<td></td>
<td>superior</td>
<td>sius?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fate line</td>
<td>ultima?</td>
<td>inferior</td>
<td>prosperitatis</td>
<td>tertia/</td>
<td>basis trianguli</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The fingers</strong> (‘digitus’ is assumed except in the case of ‘pollex’):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>thumb</td>
<td>pollex</td>
<td>pollex</td>
<td>pollex</td>
<td>pollex</td>
<td></td>
</tr>
<tr>
<td>index</td>
<td>quartus/</td>
<td>index</td>
<td>index</td>
<td>index</td>
<td></td>
</tr>
<tr>
<td>middle</td>
<td>tertius/</td>
<td>longus</td>
<td>medius</td>
<td>medius</td>
<td>medius</td>
</tr>
<tr>
<td></td>
<td>medius</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ring</td>
<td>secundus</td>
<td>alias</td>
<td>auricularis</td>
<td>medicus</td>
<td></td>
</tr>
<tr>
<td>little</td>
<td>minimus/</td>
<td>primus</td>
<td>auricularis</td>
<td>auricularis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>auricularis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The parts of the hand</strong> (‘manus’ is assumed):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hollow</td>
<td>fovea</td>
<td>fovea</td>
<td>concavitas/</td>
<td>concavum</td>
<td></td>
</tr>
<tr>
<td>table</td>
<td>mensa</td>
<td>mensa</td>
<td>tabula</td>
<td>moles/ictus</td>
<td>ictus/acumen/</td>
</tr>
<tr>
<td>side/blade</td>
<td>percussio/</td>
<td>latus</td>
<td></td>
<td>incisio</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ictus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The ‘mounts’</strong> (‘m.’ = ‘mons’):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of fingers</td>
<td>conus</td>
<td>conus</td>
<td>m. pollicis</td>
<td>m. digitorum</td>
<td>m. pollicis</td>
</tr>
<tr>
<td>of thumb</td>
<td>mons/conus</td>
<td></td>
<td>m. pollicis</td>
<td>m. ictus</td>
<td></td>
</tr>
<tr>
<td>of the side</td>
<td>percussionis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: the ‘fate line’ and the ‘linea prosperitatis’ appear to be the same, but are probably different from the ‘base of the triangle’ which is admitted to be a very faint line in most cases.
II


59 Tres sunt fideles lineae in planicie cyros: prodice, coponosius, scyros.
60 Cum extenditur per median planiciem alicuius (MS alicuius) eorum per manum, cum extendatur usque ad primum digitum monachus erit. 61 Cum ad alium digitum extendatur, in aqua peribit. 62 Cum digito longo tendatur, signum est crudelitatis usque ad maximum. 63 Perpendiculus est quedam linea, que si sit arta et non longa, signum est confessionis interius et amittet unum pedem. 64 Corponosius est linea que si sit omni modo brevis, signum est maxime pecunie et nummorum et animalium. 65 Si omnino maxima, signum est amoris iusti a dominis in senectute et non in puercia. 66 Si sit in parte rubea et in parte alterius coloris quem ego bene scio, signum est heretici.

67 Ista figura signum est subitaneo mortis in illo <vel> proximo anno et eius pecunie destruentur ante mortem.

68 Ista figura signum est matris avaricie et patris largitas. 69 In quacumque manu reperiatur ista figura, est signum patris largitatis vel avaricie matris [largitatis] et sui ipsius, vel ille vel aliquis fratrum suorum suspendetur. /fol. 191v/

70 Ista figura est signum diviciarum parentum et ille idem erit sapiens homo.

71 Hec figura est signum presbiterii.

72 Hec figura est signum episcopi.


74 Hec crux extra manum signum est apulsi. 75 Si sit intra (MS infra), rex erit.

76 Hec figura signum est milicie et maxime valentis in illa.

77 Hoc signum est navigii.
Translation

59 There are three dependable lines in the palm of the hand, the *prodice*, the *coponosius* and the *scyros*.13 60 When one of them extends through the hand through the middle of the palm, if it extends as far as the first finger, he will be a monk. 61 If it extends to the second (?) finger, he will die in water. 62 If it extends to the long finger, it is a sign of the greatest possible cruelty. 63 The *perpendicular*14 is a certain line, which, if it is narrow and not long, is a sign of inner confession, and he will lose one foot. 64 The *corponosius* is a line which, if it is short in every way, is a sign of the greatest quantity of money, coins and animals. 65 If it is of the largest possible extent in every respect, it is a sign of righteous love from masters, in old age rather than in youth. 66 If it is partly red and partly of the other colour which I know well, it is a sign of a heretic.

67 This mark is a sign of sudden death in that <or the> next year and his money will be lost before he dies.

68 This mark is a sign of the miserliness of the mother and the generosity of the father. 69 In whatever hand this mark is found, it is a sign of the generosity of the father or the miserliness of the mother and of himself, or he or one of his brothers will be hung.

70 This mark is a sign of the wealth of his parents, and he will be a wise man.

71 This mark is a sign of a priest's office.

72 This mark is a sign of a bishop.

73 This mark denotes harm to his cow or mare.

74 This cross outside the hand is a sign of someone deposed. 75 If it is within, he will be king.

76 This mark is a sign of service as a soldier and of someone very successful in it.

77 This is a sign of service at sea.

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13 The origin of these terms is obscure. Two of the terminations of the words are the same as those of two of the lines of the triangle in the Greek chiromancy published by F. Boll, *Catalogus codicum astrologorum graecorum*, VII, Brussels, 1908, pp. 237-44: 'ζωιφόρος, χροινική'.

14 This is probably the same as the *prodice* in 59.
CHIROMANCY: SUPPLEMENT

78  Hoc est signum puppilli.
79  Hec figura est orphani.
80  Hoc signum est electi vel libenter benedicentis.
81  Hoc signum est alicuius despicientis clerum.
82  Hec figura est signum corruptionis (MS corruptione) alicuius divitis.
83  Hec figura est signum stulti.
84  Hec figura est signum latronis.
85  Hec signum est fidelis.
86  Hoc est signum false li<n>gwe.
87  Hoc signum est benedictionis,
88  hoc maledictionis.

III The Adelard Chiromancy

_P_ Paris, Bibliothèque nationale, n.a.l. 693, s.xiii, fols 96v–97r
_S_ Schlägl 144, s.xv, fols. 46r–7r
_T_ Cambridge, Trinity 0.2.5, s.xv, fols. 128ra–130rb
_U_ Cambridge, Trinity 0.2.5, s.xvi, fols. 212r–216v.

_T_ includes an extra section after sentence 44, which repeats many of the indications, including those referring to women (headed 'De mulieribus').

*Mainz.* A slightly abbreviated and 'edited' version, printed as the first part of the text entitled *Liber cheiromantiae incerto authore* in *Antiochi Tiberii Doctoris de cheiromantia libri III*, Mainz, 1541. Sentences 14, 19–20 and 22, the first half of sentence 24, sentence 26, the end of sentence 30 and sentence 37 are omitted. In addition there is extra information concerning women's indications:
This is a sign of a ward.

This is a sign of an orphan.

This is a sign of someone being elected or freely blessing.

This is a sign of someone despising the clergy.

This mark is a sign of the harm of a rich man.

This mark is the sign of a fool.

This mark is the sign of a robber.

This is a mark of a trustworthy man (or believer).

This is the sign of a false tongue.

This is a sign of blessing.

This, of a curse.

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44: 'vel si in medio talis figura apparerit vel sic , ex adulterio concept, vel si in medio talis figura vel sic fuerit, et rubeus angulus, vel si quasi tales figuras masculum ferre impregnatum significat.'

The manuscripts vary a great deal in their expression, and there are obvious corruptions in all of them. The following edition is based on MS P with variants from other manuscripts mentioned only when they are adopted instead of those of P. Trivial variants in P (such as the confusion between 'e' and 'i') are not mentioned. I am very grateful to Danielle Jacquart for collating the manuscript. Most of the figures in the text are missing.
Chiromantia Parval

1 Lineae naturales tres sunt in planitie omnis cyros, que triangulum constituunt. Est et alia adiacens que mensalis vocatur eo quod per longitudinem mense ciros extendatur. 2 Linearum quaedam sunt naturales tantum, quaedam naturales et accidentales et quaedam accidentales tantum. 3 Item naturalium quaedam recte, quaedam oblique, quaedam grosse, quaedam subtiles, quaedam acute, quaedam obtuse, quaedam rubee et quaedam pallide, quaedam fisse, quaedam continue. Similiter naturalium et accidentalium vel et accidentalium tantum. 4 Naturales tantum dices illas lineas que naturaliter cuiuslibet hominis cyros insunt, ut triangulum et lineam mensalem. 5 Naturales et accidentalium tantum dices illas que singulariter secundum naturam subiecto alicui insunt et eiusmodem fatum sive de preteritis sive de presentibus sive de futuris accidentaliter denunciant. 6 Accidentales tantum dices illas que ex nimio calore sive ex nimio frigore sive ex defectu sanguinis eveniunt, que qualiter dinoce possunt in sequentibus docebimus. Hee etenim in omnibus sunt semper fallaces, sed quoniam secundum naturales tantum et naturales et accidentalium tantum verum in accidentibus occurrit iudicium, de illis, ceteris postpositis, primo dicendum est.

7 Igitur a triangulo quem, ut dictum est, tres lineae naturales constituunt, incipiamus ostendendo quid qualiter dispositus habeat designare. 8 Et quoniam triangulorum quaedam sunt equilateri, quaedam lineae habentes inequalia, quaedam subtiles, quaedam grossas, quaedam angulos obtusos, quaedam acutos, de singulis singillum dicendum est. 9 Triangulus equilaterus, fidelem, longam vitam predicat, amabilem, famosum. 10 Linea superior in triangulo si ceteris longior apparuerit, furem predicat; si minor, contrarium; si grossior, homicidam; si subttilior, lascivium; si rubea, sanguinis effusionem; si pallida, suspensionem. In eadem si gradus fuerit, adulterium in viro significat, in muliere castitatem.

11 Linea dextra in omnibus est contrarium, linea inferior utrisque semidivisa. 12 Si superior angulus acutus fuerit et planus, ingenium acutum et fraudulentum et mendacem significat; si obtusus, parentelem infirmam.

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15 *No title in P. Chiromancia parva S, Ars ciromanciae U, Chiromantia seu Palmistria T (in lower margin).
16 ST, PU om.
17 S, qui PTU
18 et alia STU etiam in- P
19 vel et accidentalium S, PTU om.
20 STU, P om.
21 incipiamus ostendendo STU, intendendo P
22 quidam...quidam etc. STU quidem...quidem etc. P
23 STU, angulis P
24 T, homicidium U, homicida P
25 inferior utrisque SU, in omnibus P
The Small Chiromancy

1. There are three natural lines on the flat part of each hand; these make up a triangle. There is another next to this which is called the 'table line', because it extends across the length of the table of the hand. 2. Some lines are natural only, some are natural and accidental, some are accidental only. 3. Likewise, of the natural lines, some are straight, others oblique, some thick, others thin, some sharp, others blunt, some red, others pale, some divided, others continuous. The same applies to the natural-and-accidental lines and the accidental-only. 4. You will call 'natural only' those lines which are naturally in the hand of each man, such as the triangular and the table line. 5. You will call 'natural and accidental only' those lines which individually are in some subject by nature, and accidentally reveal his fate, whether in respect to past things, or present or future. 6. We call 'accidental only' those which arise from too much heat or too much cold or from a malfunction of the blood; we will teach how they can be distinguished in what follows. For these are always misleading in all (hands), but since true judgement concerning happenings (?) comes about from the natural-only and the natural-and-accidental-only lines, about these one must speak first, postponing the others.

7. Therefore, let us start from the triangle, which, as has been said, three natural lines constitute, showing what it has to indicate according to its disposition. 8. And since some triangles are equilateral, others have lines of unequal length, some thin (lines), others thick, some (having) obtuse angles, others acute, one must speak about each kind separately. 9. An equilateral triangle predicts a trustworthy man (or believer), a long life, and a man capable of being loved, and famous. 10. If the upper line in the triangle appears to be longer than the rest, it predicts a thief; if shorter, the opposite; if thicker, a murderer; if thinner, wantonness; if red, loss of blood; if pale, hanging. If there is a step in it, it indicates adultery in a man, but chastity in a woman.

11. The right line is contrary in every respect, the lower line is divided between both. 12. If the higher angle is acute and flat, it indicates an acute intelligent and a deceitful, lying man; if it is obtuse, an insecure
13 Inferior in dextra ex toto contrarium si in viris, per contrarium in mulieribus invenies. 14 Tercius angulus si fuerit acutus, vitam metitur et salutem; si obtusus et pallidus, mortem sive infirmitatem. 15 Triangulus si in aliqua parte sui non cohereat,26 stulticiam affirmat aut maxime luxuriosum.

16 Si in triangulo superius talis figura apparuerit errupted, in viro demenciam et mulieris lascivium [sic] significat. 17 Si in dextra linea trianguli .o. apparuerit, unum oculum amittet; si duo, duos. 18 Si multe rimule eandem fiderint, regiones multas visurum vel vidisse denunciant. 19 Hec eadem in radice sua si plures lineas ad modum crucis expanserit [sic] et unum o., signum est boni finis et confessionis bone.

20 Superior linea in triangulo si in radice plures lineas ad modum 26 emiserit, infirmitates multas ante mortem significat. Si aliquam sorori sua emiserit, damnum parentibus infert et mortem alicui. 21 Si in capite trianguli linea ad modum 特产 pluribus locis se erexerit27 de gradu in gradum, diviciarum augmentum significat. Si autem se inclinaverit, de malo in peius reducit. 22 In eodem loco si in parte dextra figura talis apparuerit , divicias, dignitates, amicicias cum timore et dolore verissime predicat. Si superius quasi .3. apparuerit, infirmitatem secundum quantitatem sui eodem anno predicat.28

23 Linea mensalis si obliqua fuerit, affirmat triangulum,29 si recta, iusticiam subiecti. Hec eadem si mensam exerit, iracundum et nequam signat. 24 In eadem si gradus fuerit et ascenderit secundum quantitatem30 sui, honores signat, et si ab eadem in capite versus indicem linea recta31 ascenderit, si digitum medium fiderit, audaciam et32 probum significat. 25 Si inter duos digitos se33 extenderit, per vulnura moriturum predicat. 26 Eandem si multe rimule fiderint iuxta radicem, multa vulnera in iuventute; si iuxta capud, multa vulnera34 circa frontem portendit; si grossa, capitalia; si subtilis, in femoribus;35 si rubea, in pectore. 27 Si a linea mensali aliqua36 rimula versus medium se porrexerit, labores multos37 et magnos et angustias portendit. 28 Eadem si subtilis fuerit et
CHIROMANCY: SUPPLEMENT

patronage. 13 The lower (line, angle ?) on the right (hand) is completely contrary if in men, but you will find the opposite in women.\textsuperscript{38} 14 If the third angle is acute, it measures out life and good health; if it is obtuse and pale, death or illness. 15 If the triangle gapes in any part of it, it affirms foolishness or a man who is very licentious.

16 If in the upper part of the triangle such a mark appears \textsuperscript{8}, it indicates madness in a man, but wantonness in a woman. 17 If in the right line of the triangle an \textsuperscript{9} appears, he will lose one eye; if two, two. 18 If many little fissures cut the same (line), they indicate that he will see or has seen many regions. 19 If this same (line) spreads out into many little lines in its root like a cross, and (there is) one \textsuperscript{10}, this is a sign of a good end and good confession.

20 If the upper line in the triangle sends out many lines in its root in the likeness of \textsuperscript{2a}, it indicates many illnesses before death. If it sends a line to its sister (line), it brings harm to his parents and death to someone. 21 If in the head of the triangle, the line raises itself from step to step in the likeness of \textsuperscript{5v}, in many places, it predicts the increase of riches. But if it sinks, it brings him down from bad to worse. 22 In the same place if on the right side such a mark appears \textsuperscript{4}, it predicts most truly riches, honours and friendships with fear and grief. If something like \textsuperscript{7} appears above, it predicts illness in the same year according to its size.

23 If the table line is oblique, it affirms the triangle (or an unjust man); if straight, the justice of the subject. If this line goes out of the table, it indicates an angry and wicked man. 24 If there is a step in the same (line) and it ascends, it indicates honours according to its size, and if from the same (line) from its head towards the index finger a straight line goes up, if it cuts the middle finger, it indicates a bold and upright man. 25 If it extends between the two fingers, it predicts that he will die from wounds. 26 If many fissures cut this same line at its root, there are many wounds in his youth; if at its head, it portends many wounds on his forehead; if thick, head-wounds; if thin, in his thighs; if red, in his breast. 27 If a fissure extends from the table line towards the middle, it portends great and many labours and hardships. 28 If it is thin and red, it diminishes

\textsuperscript{38} For 12–13 the Mainz text reads: 'If the higher angle is acute, it indicates life and good health, if it is obtuse or pale, illness and death. 13 It is opposite in the right hand of a man. In women you will find what has been mentioned.'
rubea, minuit\textsuperscript{39} predicta; si grossa et pallida, dauguet.\textsuperscript{29} Si pluribus locis intercisa, labores et angustias requie intercidit.\textsuperscript{40}

\textbf{30} Si inter lineam mensalem et auricularem linea apparuerit erecta et subtilis, in viris avariciam et sceleris alicuius consci\ae\ em significat; si obliqua et grossa, largitatem et famosum. Econtra (? in mulieribus, si erecta et subtilis, virginitatem; si grossa et obliqua, contrarium. Eandem quotcumque\textsuperscript{41} linee, tot hominum notiores (?\textsuperscript{42} sub eadem lineatione pretendit.\textsuperscript{31} Iuxta eandem a latere manus inter lineam mensalem et auricularem quotcumque linee apparuerint, totidem designant nupcias, excepta prima linea.\textsuperscript{43} Si oblique fuerint, peractas; si recte, futuras.\textsuperscript{32} Sub eisdem in eodem latere inimicos indicabit. Quotcumque ibi\textsuperscript{44} linee se coniunxerint,\textsuperscript{45} totidem inimicos presentes portendit. Et si valde erecte et acute fuerint, mortiferos. Si aliqua linea eas transeat, parentes proprios indicat.\textsuperscript{33} Hee etiam linee amicos hoc modo\textsuperscript{46} probant. Si in pluribus locis—videlicet capite, medio et radice—se coadunaverint, et amicis-simos secundum qualitatem sui denunciat.

\textbf{34} Ex alia parte manus in cono si in inferiori parte quatuor linee seu plures se extenderint, divicias in puericia secundum quantitatem sui\textsuperscript{47} denunciat; si in medio cono, divicias maximas in iuventute; si iuxta unguem pollicis, plurimas in senectute.\textsuperscript{35} Has omnes si plures lineas transierint, infortunium\textsuperscript{48} in ipsis possessionibus secundum quantitatem sui portendunt. Et si rubeae fuerint, parentem invidiam; si pallide, avarum et cupidum.

\textbf{36} Si in superiori parte pollicis iuxta unguem apparuerit talis figura , leprosum denunciat, odium omni homini inducit, furem, adulterium.\textsuperscript{37} Sub eadem si .o. apparuerit, famosum denunciat. Si inferius apparuerit,\textsuperscript{49} suspendetur; si superius, submergetur.\textsuperscript{38} Unguis naturaliter curvus numerosum\textsuperscript{50} significat si rubeus fuerit;\textsuperscript{51} si planus et pallidus, infortunatum.

\textbf{39} Hec omnia tam in viris quam in mulieribus sunt consideranda, diversis manibus, temporibus ac diebus.\textsuperscript{40} Dextra enim viri vere augmentatur,

\textsuperscript{39} SU, inmittit P
\textsuperscript{40} S, requiem interdicit P
\textsuperscript{41} SU, quecumque P
\textsuperscript{42} S, hominum notiones U, viventes (?) P
\textsuperscript{43} excepta prima linea T, PSU om.
\textsuperscript{44} S, due PT
\textsuperscript{45} S, connexerint P
\textsuperscript{46} hoc modo STU, carissimos P
\textsuperscript{47} S, P om.
\textsuperscript{48} SU, infortunia P
\textsuperscript{49} famosum . . . apparuerit T, SU (‘rubeus’ for ‘inferius’), P om.
\textsuperscript{50} STU, damnosum P
\textsuperscript{51} si rubeus fuerit SU, T (‘famosum’ for ‘fuerit’), P om.
these; if it is thick and pale, it increases them. **29** If it is cut in many places, it intersperses the labours and hardships with rest.\(^{52}\)

**30** If an straight, thin line appears between the table line and the little finger, it indicates miserliness in men and a man conscious of some crime; if it is oblique and thick, generosity and a famous man. On the contrary, in women if it is straight and thin, virginity; if it is thick and oblique, the opposite. However many lines (cut) the same line, it portends so many more famous men according to the same lineation (?). **31** By this line on the side of the hand between the table line and the little finger, however lines appear, so many marriages they indicate, the first line excepted. If they are oblique, past marriages; if straight, future ones. **32** Under the same lines on the same side it will indicate enemies. However many lines join there, it portends that so many enemies are present. And if they are very sharp and straight, mortal (enemies). If a line passes through them, it will indicate his own parents. **33** These lines prove friends in this way. If they join in many places—i.e., in the head, the middle and the root—they announce very close friends too according to their kind.

**34** On the other side of the hand, in the cone (mount of the thumb) if on the lower side four or more lines appear and extend, they announce riches in childhood according to their quantity; if in the middle of the cone, greatest riches in youth; if next to the nail of the thumb, most riches in old age. **35** If more lines pass through all these lines, they portend harm to his very possessions according to their number. And if they are red, the envy of his parents; if white, that he is miserly and greedy.

**36** If in the upper part of the thumb, next to the nail, a certain figure like this appears , it announces that he is suffering from leprosy, it brings in the hatred to all men, a thief, adultery. **37** If an .o. appears under the same part, it announces a famous man. If it appears lower down, he will be hung; if higher up, he will be drowned. **38** If the nail naturally curves, it announces that he has money if it is red; if it is flat and pale, a misfortune and an unlucky man.

**39** All these should be considered as much in men as in women, but in different hands, in different seasons and on different days. **40** For the right hand of the man increases in spring, the left hand brings judgement (?)

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\(^{52}\) The *Mainz* text reads: ‘If it is cut in many places, it indicates labours and griefs, if it is not cut, it shows rest.’
sinistra instantiam inducit. Econverso mulieris sinistra vere augmentatur, dextra instanciam inducit.\textsuperscript{53} Item tempore estivo dextra viri se magis indicat, tempore yemali sinistra mulieris non fallit. \textsuperscript{41} Item diem Solis et diem Iovis vir vendicat; diem Lune et diem Veneris mulier approbat.\textsuperscript{54}

\textbf{42} Sunt etiam alie quedam lineae in mulieribus mulierum\textsuperscript{55} secretiora indicantes. Has hoc modo invenies. \textbf{43} Inspice triangulum, si in eo quasi multa foramina fuerint et rubedo inserta pregnantem indicabit. \textbf{44} Si in medio talis figura apparuerit $\mathbf{\nabla}$, ex adulterio concepit. In eodem triangulo in parte inferiori si planus fuerit angulus et rubeus, masculo impregnatam significat. \textbf{45} Si figuram quasi .y. inveneres, feminam, si se inclinaverit ad angulum; et quotcumque tales figure se similiter inclinaverint, totidem filiabus impregnatam indicabit. \textbf{46} Item de filiis si recte fuerint figure.

\textbf{47} Cum ergo volueris per hanc artem operari, dies predictos observa et manum querentis tali modo iudicabis. \textbf{48} In primis aqua calida manum diligenter abluas donec cutis contrahatur. Deinde sicca et\textsuperscript{56} manu tua frica eam diu et secundum lineas satis apparentes et colores ut predictum est iudicabis.\textsuperscript{57} \textbf{49} Lineae quas videris\textsuperscript{58} discoherentes et subtiles, accidentales esse scias; has pretermittas\textsuperscript{59} ne falsum incurras.

\textit{P adds:} \textbf{50} Extitit in Britannia quidam religiosus anachorita cui Deus sua gratia viris et mulieribus angelo nuntiante revelavit hec signa profectura. \textbf{51} Huius namque frater morbo preoccupatus est; pro cuius salute Hilaricus (?), vir iste devotus Deo, flexis in terra genibus, extensis in celum manibus, oravit ut ei dominus signum vite vel mortis fratris sui certe patecerit. \textbf{52} Dominus igitur eius adimplevit votum. Surgens namque ab oratione (?) huiusmodi staturam marmoream coram se prospexit in qua maris dextram, mulieris sinistram sculptam discernit, in quibus signa predicta indicata sunt. \textbf{53} Sciendum est tamen quod qued quodam ars reperta est naturalis a quodam philosopho Eadmundo qui ante fuerat Saracenus et vocabatur Maneanus, sed transtulit hunc [sic] artem Magister Adulwardus de greco in latinum.

\textit{S adds:} \textbf{50} Et subdit quod in Britannia hec ars sit cuidam religiosissimo anachorite revelata et hec quod quod illas lineas accidentales quare predicebat nota (?) vera. \textbf{53} Sed quod lineas naturales est scientia naturalis. Et reperta a philosopho quodam qui Saracenus vocatus est et est translata ad nostram lingwam per Magistrum Adelardum. Explicit Chiromantia Minor.

\textit{T adds designs of the hands. These precede the text in P where they are entitled ‘dextera viri’ and ‘sinistra mulieris’ (with viri and mulieris partly in Greek letters, partly in code).}

\textsuperscript{53} Econverso...inducit SU contra in mulieribus T, P om.  
\textsuperscript{54} STU, appellat P  
\textsuperscript{55} U, mulieris T, SP om.  
\textsuperscript{56} sicca et U, siccata PS  
\textsuperscript{57} STU, indicabit P  
\textsuperscript{58} STU, videre P  
\textsuperscript{59} STU, preteritas P
On the other hand the left hand of a woman increases in spring, the right hand brings judgement (?). In summertime the right hand of the man shows itself more clearly, in wintertime the left hand of the woman does not fail. 41 The man claims Sunday and Thursday; the woman approves Monday and Friday.

42 There are also certain other lines in women indicating the more secret matters of women. You will find them in this way. 43 Look at the triangle, and if there are many holes, as it were, and a red colour is introduced, then it will indicate that she is pregnant. 44 If in the middle there is a figure like , she has conceived adulterously. If in the same triangle, on the lower side, there is a plain, red angle, it indicates she is pregnant with a male child. 45 If you find a mark like a .y., a female, if it inclines towards the angle; and however many such marks incline in a similar way, it will indicate that she is pregnant with so many daughters. 46 The same is indicated in respect to sons, if the marks are straight.

47 When you wish to practise this art, observe the aforementioned days and you will judge the hand of the client in such a way. 48 First you should carefully wash the hand with hot water until the skin contracts. Then dry it and rub it for some time with your hand, and you will judge according to the lines which are sufficiently distinct and their colours, as has been explained. 49 But you should know that the non-cohering and thin lines that you notice are accidental; you should disregard these lest you fall into falsehood.

P adds: 50 There was in Britain a certain religious ancorite to whom God in His grace revealed through the message of an angel these signs which would benefit men and women. 51 For his brother was burdened by an illness. To save him Hilaricus (?), that man, devoted to God, having bent his knees to the ground and extended his hands to heaven, prayed that the Lord might reveal to him a clear sign of the recovery or death of his brother. 52 The Lord therefore fulfilled his prayer. For rising from his prayer, he saw infront of him a marble statue of this kind on which he noticed that a right hand of a man and a left hand of a woman were sculpted in which the aforementioned signs were indicated. 53 One should know, however, that a certain natural art was discovered by a certain philosopher, Eadmund, who was previously a Saracen and was called Manean, but Master Adelard translated this art from Greek into Latin.

S adds: 50 And he adds that this art was revealed in Britain to a certain very religious ancorite, and this, in respect to those accidental lines by which he made predictions is a true revelation (?), 53 but in respect to the natural lines it is a natural science. This was discovered by a certain philosopher called ‘Saracenus’ and is translated into our language by Master Adelard. The Lesser Chiromancy ends.
IV. The Hands

The Hands. Similar rubrics are found in the same positions on the depictions of the hands which accompany (1) the Eadwine Chiromancy in MSS Oxford, Bodleian, Ashmole 399, fol. 17r (B), British Library, Sloane 2030, fol. 126r (S), and ibid. Sloane 323, fol. 188r (Z), (2) the

Figure 1. The Left Hand (S)
Adelard Chiromancy in MSS Paris, BN, n.a.l. 693, fols 95v and 96r (P), Trinity, O.2.5, 129v–30r (T), and Schlägl, Stiftsbibliothek 144, and the chiromancy of 'John the Philosopher' published by Thorndike (Paris, BN, lat. 1215). The following texts are from B and S (B's readings are given first). The position of the predictions on the hand can be found by consulting the Plates, and Figures I and II below.

Figure II. The Right Hand (S)
CHIROMANCY: SUPPLEMENT

Dextra viri

1 [Linee] nupciarum. Quot lineas tales post primam habuerit, tot uxoribus nubet; et si longiores, nobiliores.

1 Hec sunt lineae nupciarum. Quot tales lineas post primam habuerit, tot feminas habebit; si fuerint longiores post nobiliores erunt.

2 Signa vulnerum genibus infra—magna futurorum, parva preteritorum.

2 Hec sunt signa vulnerum corporis infra genua—magna futurorum, parva preteritorum.

3 Hec linea subintrans auricularem vite mutacionem designat (BS the same).

4 Signa vulnerum in femore—si magna futurum, parva preteritorum.

4 Hec sunt signa vulnerum in femore—maxima futurorum, parva preteritorum.

5 Hec linea lata non longa, temeritatis est nota.

5 Hec linea lata non longa inter digitos extensa temeritatis est nota.

6 Signa vulnerum in corpore—lata futurorum, parva preteritorum.

6 Hec sunt signa vulnerum corporis—lata futurorum, subtilia preteritorum.

7 Hec linea si inter digitos extenditur, signum est mortis ex vulnere. Si super digitum extendatur, et alia linea super indicem, signum est mortis subitaneae.

7 Hec linea si inter digitos istos bene extenditur, signum est mortis ex vulnere. Et si super medium digitum extendatur et alia super indicem, signum est subitanee mortis.

8 Hec linea si ad aliam obliquatur in illo anno infirmabitur (BS the same).

9 Signa vulnerum capitis—magna futurorum, parva preteritorum.

60 P, masculi T.
61 Cf. T: ‘Hec linea si fuerit extensa inter digitos paupertatem signat’.
The Right Hand, of the Man

1 These are the lines of marriage. However many such lines he has after the first, so many wives he will have. If the lines are longer, the wives afterwards will be more noble (B: the longer, the nobler) (cf. Adelard Chiromancy 31).

2 These are the signs of wounds on the body below the knees—large ones indicate future (wounds), small ones, past (cf. Eadwine Chiromancy 51).

3 These lines entering the little finger indicate a change in life.

4 These are the signs of wounds in the thigh—large (S: very large) ones indicate future (wounds), small ones, past.

5 This line, when it is broad and not long (S adds: extending between the fingers), is an indication of rashness.

6 These are the signs of wounds in the body—broad ones indicate future (wounds), thin (B: small) ones, past (cf. Eadwine Chiromancy 52).

7 If this line extends (S adds: considerably) between those fingers, it is a sign of death from a wound. If it extends over the middle (B omits) finger, and another line over the index finger, it is a sign of sudden death.

8 If this line is oblique to another, he will be ill in that year.

9 These are the signs of wounds in the head—large ones indicate future (wounds), small ones, past.
9 Hec sunt signa vulnerum capitis—magna futurorum, parva preteritorum.

10 B omits.

10 Hec crux dignitatem baculi significat.

11 Hee sunt signa fidelitatis et infidelitatis, que si co<h>erent, infidelitatem et suspensionem significant.

11 Hee sunt signa fidelitatis et infidelitatis, que si coeunt, infidelitatem et suspensionem significant.

12 Hec linea nec alicubi incipiens, nec alicubi finiens, signum est honoris vel terminalis puncti.

12 Hec linea si alicubi sit incipiens sive exiens, signum subiti honoris est vel terminalis puncti.

13 Hec crux fidem ponit et cum fide recedit.

13 Hec crux fidem ponit et de re recedit.62

14 Hec crux est alicuius literati.

14 Hec crux est si<gnum> alicuius literati.

15 Hec linea non lata usque ad digitum audaciam s(significat).

15 Hec linea non lata set longa audaciam denotat usque ad digitum extensa.

16 Hec significant votum incompletum, sed si crux findit, votum completum.

17 Hec sunt signa voti completi (BS the same).

18 Signa diviciarum in senectute.

18 Hec sunt signa diviciarum in senectute.

10 This cross signifies the honour of a staff.63

11 These are the signs of faithfulness and unfaithfulness: if they join, they indicate unfaithfulness and hanging (cf. Eadwine Chiromancy 28–9).

12 If this sign begins or ends in any place (B: neither begins nor ends in any place), it is a sign of promotion coming suddenly (B omits) or of a terminal point (?).

13 This cross establishes faith and takes away faith when it goes.

14 This cross is a sign of some literate person.

15 If this line is not broad (S adds: but long) and extends as far as the finger, it indicates boldness.

16 These (lines) indicate an unfulfilled prayer (or vow), but if a cross cuts (them), a fulfilled prayer (or vow).

17 These are the signs of a fulfilled prayer (or vow).

18 These are the signs of riches in old age.

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63 This is presumably a bishop's or abbot's crozier.
19 Signa divicie in medio evo.

19 In medio evo.

20 Hec in iuventute (*BS the same*).

21 Hec crux exiens vitam remordet.

21 Hec crux exiens vitam removet et eius contrarium inducit. Que quanto plus exierit, tanto magis mox excedit.\(^{64}\)

22 Signa voti incompleti.

22 Hec sunt signa voti completi.

23 Si per medium triangulum multe linee extenduntur, signum est naufragii.

23 Si per medium triangulum extendit signum est naufragii.

24 Guttam significat (*B omits*).

25 Hec linea si longa extendatur iuxta triangulum signum est bone confessionis.

25 Hec linea bene extensa iuxta triangulum, signum est bone confessionis.

**Sinistra mulieris\(^{65}\)**

1 Quot lineas tales post primam habuerit, tot viris desponsabitur. Et si maiores sint secunde quam prime, nobiliores erunt mariti quam ipsa sponsa (*B omits*).

2 Hee linee innumerabiles meretricem designant.

2 Linee hee meretricem significant.

\(^{64}\) Cf. *T*: 'Que quanto plus extenditur, tanto magis mox accedit'.

\(^{65}\) *P*, femelle *T*. 
19 These are the signs of riches in middle age.

20 These, in youth. (18–20 = Adelard Chiromancy 34).

21 This cross coming to an end, removes life, and its opposite brings (life). The more it goes away, the sooner (life) departs.

22 These are signs of a fulfilled (B: unfulfilled) prayer (or vow).

23 If many lines extend (S: it extends) through the middle of the triangle it is sign of shipwreck.

24. It signifies a drop of water (?).\textsuperscript{66}

25 If this line is well (B: long) extended along the side of the triangle, it is a sign of a good confession.

The Left Hand, of the Woman

(Only those rubrics with different significances from those of the Man are translated).

1 However many such lines she has after the first, so many husbands will she marry. If the second lines are bigger than the first, the husbands will be more noble than the wife herself.\textsuperscript{67}

2 These lines (if they are without number) indicate a prostitute.

\textsuperscript{66} The same word occurs in the John of Seville Chiromancy, l.18 (ed. Pack, 1969, p. 221): ‘et si ab ea multe procedant linee versus finem, guttam portendunt illum habitationum ante mortem’.

\textsuperscript{67} This legend is written between the ring and the little fingers in S and no mark is shown on the hand.
3 Filiarum, quia si hac parte plures lineas quam ex alia habuerit plures natos habebit quam natas, ex alia parte econverso (B omits).

4 Signa filiorum. Signa virorum quia post primam si longiores lineae, [si] filiarum nobiliores erunt viri.

4 Filiarum domini. Cum longiores sint nobiliores erunt nati.

5 Si hac parte fuerint plures lineae, plures filios habebit quam filias; si ex altera parte, econverso.

5 Si ex hac parte plures sint, plures filios habebit quam filias.

6 Hic digitus si in minimis signis fuerit, mulierem liberam esse a curis terrenis.

6 Hic digitus immunis a signis significat mulierem esse liberam a cunctis terrenis.

7 Hec linea inter digitos extensa signum est mortis in partu; si super medium extendatur et alia super indicem, signum mortis subitanee.

7 Hec linea exiens, signum est mortis infantis, id est per infantem, sed si super digitum medium porrigatur et alia super indicem, signum mortis subitanea.

8 Hec linea, si ad aliam obliquatur, in anno illo infirmabitur (B omits).

9 Hec sunt signa vulnerum capitis, magna futurorum, parva preteritorum (BS the same).

10 Hec crux honorem baculi significat (B omits).

11 Hec signa infidelitatem significant, que si coeant, infidelitatem et suspensionem (BS the same).

13 Hec crux honorem baculi significat

13 Hec crux fidem ponit cum fide recedit.

15 Hec linea brevis et lata virginitatem designat; si subtilis existat, incorrupta esse designat, si lata, corrupta est.
3 Of daughters, because if in this part she has more lines than in (the) other part, she will have more sons than daughters. It is the converse in (the) other part.  

4 Signs of sons. Signs of husbands, because if after the first (line) the lines are longer, the husbands of the daughters will be more noble (S: The masters of daughters. When they are longer, they will be more noble by birth).

5 If in this part there are more lines, she will have more sons than daughters. (B adds: If on the other side, the converse.)

6 If this finger has no signs on it (B: if it is with very small signs), it indicates that the wife is free from earthly cares (S: from all earthly things).

7 If this line extends (B adds: between the fingers), it is a sign of death of a child—i.e., because of a child (B: in childbirth). If it extends over the middle finger, and another (line) over the index finger, it is a sign of sudden death.

8 (The same).

9–11, 13 (The same).

15 This line, short and broad, indicates virginity; if it is thin, it indicates that she is incorrupt, if it is broad, she is corrupted.

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68 The wording is clearer in *Ars chiromantiae* 7 (ed. Pack, 1972, p. 315): 'item si sub medio digito plures lineas quam in alia parte habuerit, plures filios quam filias habebit'. The John of Seville Chiromancy describes the indications in this way (I.19; ed. Pack, 1969, p. 222): 'ciromantici dicunt quod mulier habens plures lineas inter medium et medicum quam inter medicum et auricularem habilior est ad generandum filios quam filias et e contrario, linee enim inter medium et medicum filios significant, inter medicum et auricularem, filias.'
15 Hec linea si lata fuerit inviolentam (?) significat esse; si subtilis, corruptam.69

16 Hec significant votum completum (B omits).

17 Signum voti impleti (B omits).

18 Similiter hic.

18 Hec sunt signa diviciarum.

19 Similiter hic.

19 Hec sunt signa in medio evo.

20 Similiter hic.

20 Hec in iuventute.

21 Hec crux exiens vitam removet et eius contrarium inducit, scilicet mortem (B omits).70

23 Hec linea si per medium triangulum extenditur, signum est naufragii (B omits).

25 Signa bone confessionis.

25 Hec linea si bene extensa fuerit iuxta triangulum, signum est bone confessionis.

69 Cf. T: 'Hec linea si fuerit lata, significat inviolatam'.

70 Cf. T: 'Hec crux exiens vitam removet. Quanto hec crux extendit, tanto mors propinquior erit'.
16 These signify a fulfilled prayer (or vow).

17–21 (The same).

23 (The same).

25 (The same).
THE EADWINE PSALTER
AND THE WESTERN TRADITION
OF THE ONOMANCY
IN PSEUDO-ARISTOTLE'S
SECRET OF SECRETS

This article addresses the problem of how a certain form of divination from the numerical value of names appears both in a mid-twelfth century English psalter and in the Arabic—but not the Latin—versions of Pseudo-Aristotle's Secret of Secrets, and investigates the possibility of a Western tradition for this form of divination, independent of the Secret of Secrets.¹

One of the best-known surviving medieval psalters is manuscript Cambridge, Trinity College, R.17.1. This is commonly referred to as either the 'Canterbury Psalter', in that it contains a detailed plan of the water-works of Christchurch Cathedral Priory in Canterbury, and was written there in ca. 1160, or the 'Eadwine Psalter', in that a certain Eadwine—whose full-length portrait adorns the penultimate folio—appears to have been responsible for the production of the manuscript. The manuscript was reproduced in facsimile by Montague Rhodes James in 1935² and is currently being subjected to a detailed analysis by several * scholars, under the direction of Margaret Gibson. While much attention has been paid to the illustrations, the water-works plan and the Anglo-Saxon and Norman-French glosses, two prognostic texts, written at the end of the manuscript at the same time as the rest of the manuscript,

¹ I am very grateful to Margaret Gibson for drawing my attention to this ms.; to Linda Voigt for detailed criticism of my paper, for checking the transcriptions of early English texts, and for allowing me to see in advance an article of hers; and to Will Ryan for advice on the Russian onomancy.
have passed almost unnoticed. The first of these (on fol. 282r), which I have discussed elsewhere, is the earliest text (by about hundred years) of any Latin work on palmistry that we possess, and is contemporary with the earliest mentions of palmistry in Western Medieval literature, one of which, by a nice coincidence, involves Thomas Becket, Canterbury, and the year 1157. The second prognostic text (fol. 282v) consists of the tables for a kind of prognostication based on the letters of the client’s name. There are four tables:

A. The planetary weekdays and their numerical equivalents.
B. The victorious and vanquished numbers.
C. The determination of the divisor according to the topic (‘For the sick and for combat divide by 9; for husbands and wives, by 7’)
D. The letters of the alphabet and their numerical equivalents.

From related versions it is possible to work out the instructions which are tacitly understood in these tables:

To determine which of two combatants will win you take the name of each of them separately. You find the numerical equivalents of the letters from table D and add them up. You divide the totals by nine and note the remainder, which will be a number from 1 to 9 (a remainder of 0 counts as 9). Then you consult table B and find out which number conquers which, and this will indicate the victor.

In the case of a sick man you determine his remainder as before, and you compare that with the remainder of the number given to the planet on whose weekday the person fell sick.

To find out which one of a married couple will survive the other you add up the numerical values of their names as before, but instead of dividing by nine, you divide by seven, and then consult table B.

Onomantic texts are found in English liturgical books from an early date. Two examples are the Leofric missal, which includes such a text amongst a group of additions made ca. 970 at Glastonbury, and a


(5) A transcription of the full text appears in Appendix 2, Text B, below.

(6) Note that in judicial astrology the seventh astrological ‘place’ is the ‘place’ of marriage.

(7) Oxford, Bodleian, Bodl. 579, see C. Singer, Early English Magic and Medicine, in his From Magic to Science, London, 1928, pp. 144-6, and the article cited in the following note.
Psalter written at Winchester ca. 1050. However, these early versions belong to the Greek-Latin tradition of *The Letter of Pelosiris to Nechepso* and the closely related ‘Sphere of Life and Death’ (or ‘Sphere of Pythagoras’); the name of only one client is involved; the sum of the numerical equivalents of the name is divided by 30 (or 28 or 29), and the remainder is found in one of six compartments within a rectangle or sphere, which are headed ‘great life, medium life, small life, great death, medium death, small death’ respectively.

The tables in the Eadwine Psalter are interesting in that they belong to a different tradition of onomancy which we may call ‘The Victorious and the Vanquished’. The essential element of this form of divination is a set of nine tables listing all the possible combinations in pairs of the first nine digits, and indicating for each pair which number ‘conquers’ which (i.e. table B in the Eadwine Psalter). This is found in Greek, and especially in Oriental sources, but has not up to now been recognized in Latin or the European vernaculars before the mid-thirteenth century. Let us unravel the evidence that the Eadwine Psalter provides for the Western tradition of this form of onomancy.

The next earliest manuscript known to me which contains similar material is a volume illustrated by Matthew Paris (d. 1259) of St Albans: Oxford, Bodleian, Ashmole 304. Here the table of the victorious and vanquished numbers is the first item and is illustrated by a graphic depiction of one soldier injuring another. This text has been copied into Bodleian, Digby 46 (s.xiv) and appears in textually identical form in later manuscripts written in England, British Library, Additional 15236 (s.xiii) and Arundel 339 (s.xiv), Oxford, Bodleian, Ashmole 399 (s.xiii) and British Library, Sloane 3554 (s.xv).

Digby 46 adds prose instructions on the use of the table, which are repeated in Sloane 3554. Sloane 3554 adds another set of instructions.

(8) London, British Library, Cotton Tiberius C VI. This ms. is discussed by Linda Voûts in *The Latin Verse and Middle English Prose Texts on the Sphere of Life and Death in Harley 3719, Chaucer Review*, 21 (1986), pp. 291-305, see n. 21.


(12) *Incipit: Argumentum finis huius doctrine talis est...*; See pp. 153-67 below for editions of this and the other instructions mentioned in this chapter.

(13) *Incipit: Sume duo nomina...*
and Arundel 339 and Additional 15236 give yet further versions of instructions. Ashmole 399, Arundel 339 and Sloane 3554 spell out the number-letter equivalents which are necessary for the calculation but are missing from the earlier manuscripts. These equivalents are the same as those in table D in the Eadwine Psalter. Moreover Sloane 3554 and Arundel 339 include tables of planet-number equivalents as in table A in the Psalter. These are necessary for the prediction of the outcome of an illness. These sets of instructions match the data in the Eadwine Psalter so closely that I have been able to extract from them my own instructions for the use of the Eadwine tables, given at the beginning of this article.

An earlier manuscript which gives the tables of number-letter (D) and planet-number (A) equivalents, but not the victorious and vanquished numbers, is a codex bound into Bodleian, Digby 67. This codex was written in England at the end of the twelfth or in the very early thirteenth century and includes the Liber Hermetis Trismegisti de Sex Rerum Principiis—a pseudopigraphic work which uses English material, including Adelard of Bath’s Quaestiones naturales. The tables are presented on fol. 78v under the rubric Sententia Alhandrei mathematici De Nominibus Latinis. This title might lead us to suppose that the tables come from the Liber Alchandrei which has the title Mathematica Alhandrei Summi Astrologi in an eleventh-century French manuscript now in the British Library. Onomancy plays an important part in the jejune astrological fortune-telling which forms much of the subject-matter of the Liber Alchandrei. In addition to the above-mentioned Latin text of the Letter of Petosiris to Nechepso the Liber Alchandrei includes several tables of letter-number equivalents. The Eadwine Psalter letter-number and planet-number equivalents and the table of victorious and vanquished numbers are not found in any of the manuscripts of the Liber Alchandrei or its siblings, as far as I know. But in going through these manuscripts one feels that the scent is warm. Internal references in the Liber Alchandrei to Alexander Macedo make it clear that the compilation is based on works purportedly written by

(14) See table I for comparisons.
(16) Additional 17808. The most recent discussion of this text is given by Bernhard Bischoff in Bearbeitung eines arabischen Lehrbuches der Astrologie (vor 1034), in his Anedota novissima: Texte des vierten bis sechzehnten Jahrhunderts (Stuttgart, 1984), pp. 183-91. The classic study of the manuscripts is that by A. Van de Vyver, Les plus anciennes Traductions latines medievales (Xe-XVe siecles) de Traites d’Astronomie et d’Astrologie, Osiris, 1 (1936), pp. 658-91 (see pp. 666-84), while the contents of the work and its affiliations are expertly described by J. M. Millas-Villacrosa in his Assaig d’historia de les idees fisiques i matemàtiques a la Catalunya medieval, Barcelona, 1931, pp. 247-391.
or addressed to Alexander the Great. Similarly, the tables of the Sententia Alhandrei in Digby 67 follow a chapter headed Sententia philosophorum de horis in quibus debent fieri prestigia which begins: "YPocrates et Nectanebus Philosophus"... (fol. 78r). This is the only mediaeval Latin text I know in which Nectanebus, the magician of the Alexander Romance, is given as an authority. In Arundel 339 we read that Alexander the Great had the table of victorious and vanquished numbers with him wherever he travelled.

It is no coincidence that the name Alexander crops up so frequently, for, in the oriental sources in which it occurs, the table is universally described as advice given by Aristotle to Alexander. The best known, and most widely transmitted, source for this is the onomancy in the Arabic Sirr al-asrar (Secret of Secrets), a compilation of texts purporting to be letters of counsel written by Aristotle to his royal patron. Most European vernacular versions of the Secret of Secrets derive from one or other of two Latin translations of the Arabic text: the partial version made by Johannes Hispalensis probably a little before the middle of the twelfth century, and a fuller version made by Philip of Tripoli about a century later. Curiously enough, neither of these translations in the numerous manuscripts that have survived, includes the onomancy. This is consequently lacking in all the vernacular versions, except a thirteenth-century Castilian version taken directly from the Arabic, and its Iberian derivatives—all the vernacular versions, that is, except one English version which has puzzled scholars.

(17) The references to Alexander in the earliest ms. of the Liber Alchandrei (Paris, BN 17868, s.xn; here the title is Liber Alchandrei Philosophi) are as follows: (fol. 4r) figuram quam supra hanc artem Alexander Macedo compositum diligentissime posteriorius describemus; (fol. 9r) hunc Alexander Macedo dicit diem Solis eclipsin <et> Lune certissima ratione colligi; (fol. 10r) computa numerum nominis eius per septem. Quod vero infra vii remanserit diligenter considera... si... item, qui primus, Sol aut, iuxta Alexandrum Macedonem, Draco, quasi octava planeta. Si...ix., iuxta hanc sentenciam, Venus; iuxta Alexandrum vero Sol; (fol. 11r) Regi Macedonum Alexandro astrologo et <in> universa philosophia perfectionissimo, Argafalau servus suus... condicione et nacione ingenuus Caldeus, professione vero secundus ab illo astrologus. artem suam <donat>.

(18) See below p. 156.


(21) It has been assumed from a statement of Roger Bacon that there were Latin exemplars of the Secret of Secrets which had included the onomancy, but that this section was excised from the text because of its dubious magical character. However Roger Bacon, when referring to passages of dubious doctrine which the foolish have censored, mentions only the doctrines of the influence of climate on character and the use of magical names, and not onomancy (see Steele, ed. cit., p. 38, n. 4, and discussion in M. A. MANZALAOUI, Philip of Tripoli and his Textual Methods, in Pseudo-Aristotle: The Secret of Secrets, ed. W. F. Ryan and Charles Schmitt, London, 1982, pp. 55-72, see pp. 63-4.
This version is found in ms. Sloane 213, written ca. 1400, which preserves what appears to be a translation of the physiognomy and onomancy from the Secret of Secrets. Now, when one compares the onomancy in Sloane 213 with that in the Arabic Secret of Secrets and the texts we have surveyed in the Eadwine Psalter, Arundel 339, Ashmole 304 and Sloane 3554, one finds that it is closer to the Latin texts. The arrangement of the table of victorious and vanquished numbers is the same, and differs from the Arabic arrangement; the table is said to be relevant not only in the case of two combatants (the only application mentioned in the Arabic text), but also in the case of illness, and in determining which of a married couple will survive the other; and division by seven is prescribed for the latter. There is little doubt that the onomancy in Sloane 213 and those in the Eadwine Psalter, Ashmole 304 and Sloane 3554 belong to the same tradition. Moreover there are other English vernacular texts which belong to this tradition, of which examples are edited below. Sloane 213 corroborates the connection of Digby 67 with this tradition, for it gives the same table of letter-number equivalents as that found in the Sententia Alhandrei. Thus we have a tradition of onomancy preserved in English manuscripts and attributed in certain of these manuscripts to Aristotle and Alexander. The witness of the Eadwine Psalter would suggest that this tradition was already established by ca. 1160, since the scribe thought it unnecessary to add instructions on how to use the tables.

Could it be that a section of the Secret of Secrets had already reached England by subterranean channels by this date and that this is the source of this tradition? The earliest manuscript of the translation by Johannes Hispalensis forms part of the collection of medical manuscripts donated by the doctor Heribertus to Durham Cathedral towards the end of the twelfth century. Moreover, this manuscript, in common with the other surviving manuscripts of this version, does not include the onomancy. It is possible, but unlikely, that another translation made from the Secret of Secrets reached England in the twelfth century. However, it should be remembered that the Secret of Secrets is itself a compilation, and the onomancy, while being an element which contributed to this compilation, also appears on its own in Arabic manuscripts. It appears in the twelfth-century manuscript of the Syriac Book of Medicines, amongst a collection of popular ways of predicting the outcome of a disease based on computations using combinations of the numerical equivalents of the

letters of the sick man’s name, the age of the moon, and the numerical equivalents of the name of the planet ruling the day the man fell sick.\textsuperscript{25} Many of these passages are very similar to chapters of the \textit{Liber Alchandrei}. As we have seen, the \textit{Liber Alchandrei}—like the \textit{Secret of Secrets}—is a compilation of material associated with Alexander the Great. It is the earliest Latin work to give the Arabic names of the planets and signs of the zodiac, and the 28 ‘stations of the moon’. Yet it also gives the Greek alphabet, the numerical value of Greek letters, and (in some versions) the Greek names of the planets as well as the Latin translation of the Greek letter of Petosiris to Nechepso, in which Greek words are kept in Greek letters. A text of Alhandreus was known in England in the time of William of Malmesbury\textsuperscript{26} and a manuscript of Adelard of Bath’s rarely copied \textit{Regulae Abaci} once included the \textit{Mathematica Alhandrei}.\textsuperscript{27} As has been noted, the onomancy ‘The Victorious and the Vanquished’ has the same ‘feel’ as sections of the \textit{Liber Alchandrei}. Digby 67, when mentioning the planet-number equivalents, gives the names of the planets in Greek. Arundel 339 includes both the onomancy and a version of the \textit{Liber Alhandrei} on fols. 36v-41.

We may suggest some tentative conclusions. There does not seem to be any need to propose that all instances of the text ‘The Victorious and Vanquished’ in the West must ultimately derive from an Arabic Secret of Secrets. If this method of divination had an Oriental source at all, one might be able to see it as coming through the same channels as the oriental material in the \textit{Liber Alchandrei}, but it is possible that—again like portions of the \textit{Liber Alchandrei}—it derived from Greek. One important transformation would have had to take place. In Arabic as in Greek, the letters of the alphabet had numerical values, and these were the values used or implied in the table of letter-number equivalents in all Arabic and Greek versions of ‘The Victorious and Vanquished’. In Latin only a few letters (I, V, X, L, C, D, M) had numerical equivalents, and a set of letter-number equivalents had to be substituted. This set bears no relation to the values in the Greek and Arabic texts.\textsuperscript{28} However, these

\begin{itemize}
\item \textsuperscript{25} E. A. Wallis Budge, \textit{Syrian Anatomy, Pathology and Therapeutics, or ‘The Book of Medicines’}, Oxford, 1913, II, pp. 531-41.
\item \textsuperscript{26} William refers to a ‘Alhandreus in stellarum interstitiis’ as a work familiar to his audience (R. M. Thomson, \textit{The Reading of William of Malmesbury}, Revue bénédictine 85 (1975), pp. 362-94, see p. 383, n. 5).
\item \textsuperscript{27} Leiden, Bibliothek der Rijksuniversiteit, Scaliger 1. Although this is a fifteenth-century manuscript its contents form a unit, the latest work it includes is Adelard’s \textit{Regulae abaci}, and it is the only ms. to give Adelard’s preface to the work.
\item \textsuperscript{28} An onomancy in which the Latin letters do have the numerical values of the Arabic to whose sounds they most closely approximate is found in Cambridge, Fitzwilliam Museum, MS McClean 165, fol. 47v. This is a text for finding the location of a lost object, the letters of which are converted into numbers, and the sum of the numbers is divided by four.
\end{itemize}
equivalents correspond more or less to those used in many instances of the 'Sphere of Life and Death'. The ultimate origin, and the rationale, of this arrangement is as yet undiscovered.

In the Latin manuscripts 'The Victorious and Vanquished' is anonymous, with the exception of Arundel 339. In this fourteenth-century manuscript the work is ascribed to Pythagoras and Ptolemy, but the author adds that Alexander the Great had the table with him wherever he travelled. Alexander's connection with the Table is referred to in the English versions in British Library, Sloane 121, Sloane 213 and Sloane 1609. It is plausible that, like the Alchandrian material, an earlier Western version of 'The Victorious and Vanquished' was associated with Aristotle and Alexander. However, we cannot rule out the possibility that Arundel 339 and these English versions presuppose the knowledge of the onomancy in its context within the Secret of Secrets. Since that onomancy is lacking in the two Latin translations of the work, it is tempting to consider the Spanish version (which includes the onomancy) as the vehicle of transmission. The presence of Spanish (if 'Anfos' = Alfonso) and Jewish ('Benaster', 'Daveide') names in the examples given in Sloane 213 adds support to this hypothesis. But even the Spanish version is not independent of an earlier European tradition in onomancy since it includes the same letter-number equivalents as is found in the 'Sphere of Life and Death' and the anonymous Latin versions of 'The Victorious and Vanquished'. The common features of the Latin and vernacular versions of 'The Victorious and Vanquished' which separate them from the Arabic version in the Secret of Secrets would suggest that even if the figure of Alexander was taken from the Secret of Secrets, it was grafted onto a tradition which already existed in the West. Since the onomancy in the Eadwine Psalter shows no sign of being extracted from the Secret of Secrets, it may be an important witness to such an earlier tradition of 'The Victorious and Vanquished'.

APPENDIX I

A LIST OF VERSIONS OF THE ONOMANCY
'THE VICTORIOUS AND VANQUISHED'

The following data are given for each version: title; attribution and addressee (if not in the title); other proper names associated with the use of the onomancy; topics for which the method can be used; presence of an

(29) Cf. the Table in H. E. SiGERIST, The 'Sphere of Life and Death' in Early Mediaeval Manuscripts, Bulletin of the History of Medicine 11 (1942), p. 302, and Table I below.

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introductory rubric (R), of lists of victorious and defeated numbers (VV),
of a table of letter-number equivalents (LN), of a table of planet-number
equivalents (PN); the names used in examples of two combatants
fighting; manuscripts, editions and translations of the text.

A. Greek.

Letter of Pythagoras to Telauges (Laide, Heliada); combat, lawsuit; R,
VV, LN; Hector and Patroclus; mss. Paris, BN, gr. 2009, 2256 and 2419;
ed. P. Tannery, Mémoires scientifiques, IX, ed. J. L. Heiberg, Toulouse,
1929, pp. 35-39.

B. Arabic.

1. ‘On the Victorious and the Vanquished’, section M(Steele) or Ic
(Manzalaoui) of Ps.-Aristotle, Secret of Secrets; Aristotle to Alexander;
combat; R, VV, LN; mss. Gotha 1869 and 1870, London, British Library
or. 3118 and 6421, Oxford, Bodleian, Laud or. 210 and others; ed. A.-
R. Badawi, in Al-’uṣūl l’yūnāniyyatu lī-n-naṣarīyyātī s-siyāsiyyātī ū t-Islām,
Cairo, 1954, pp. 152-5; tr. A. S. Fulton in Opera haecenus inedila
Rogeri Baconi Fasc. V: Secretum Secretorum cum glossis et notulis ... Fratris
2. ‘The Victorious and the Vanquished’; Aristotle to Alexander;
combat; R, LN; Moses and Pharaoh, David and Goliath; ms. Berlin,
Staatsbibliothek Preussischer Kulturbesitz, Ahlwardt 4248, fols 145v-
146r.

C. Syriac.

‘Another calculation whereby a man is able to know beforehand
which of two men who are striving together will die’ and ‘Another
calculation about a man who is sick’. Aristotle to Alexander; combat,
business matters, illness; VV; Alexander and Darius; ed. and tr. by E. A.
Wallis Budge, in Syrian Anatomy, Pathology and Therapeutics or ‘The

D. Hebrew.

‘The Victorious and Vanquished’ within the Hebrew Secret of Secrets
translated from Arabic (see B. 1 above). Aristotle to Alexander; combat;
R, VV, LN; ed. and tr. by Moses Gaster in Studies and Texts in Folklore,
Magic, Mediaeval Romance, Hebrew Apocrypha and Samaritan Archaeology,

E. Russian.

‘The Victorious and Vanquished’ within the Russian Secret of Secrets
translated from Hebrew (see D. 1). Aristotle to Alexander; combat; R,
VV, LN; Alexander and Porus; Nestor and Lyaeus (Lijai, Lujai); ed. M.
N. Speranski, Iz istorii otrechennykh knig 4: Aristolelevi vrata ili

F. Spanish.


G. Latin.

1. No title or attribution; combat, lawsuit, illness, survival of spouse; VV, LN, LP; Cambridge, Trinity College, R.17.1; Text B in Appendix 2.

2. No title; Pythagoras and Ptolemy; used by Alexander; combat, illness, survival of spouse, survival of brothers and sisters, travellers, business success, prosperous event; R, VV, LN, PN; London, British Library, Arundel 339; Text C in Appendix 2.

3. No title or attribution; combat, lawsuit, illness, travellers, survival of spouse; R, VV, LN; London, British Library, Additional 15236; Text D in Appendix 2.

4. No title or attribution; combat, lawsuit, illness, survival of spouse; R (*a*) Sume duo nomina ...; *b* Si vis scire de duobus pugillibus ...); VV, LN, PN; Sab, Ada, Aba (examples of names whose letters add up to less than 9); London, British Library, Sloane 3554, Oxford, Bodleian, Digby 46 (omits R(a) and PN); Text E in Appendix 2.


6. Only VV and LN; Oxford, Bodleian Library, Ashmole 304, fol. iv and Ashmole 399, fol. 59r (this adds a man’s name to each of the combinations of numbers).

H. English.

2. No title; no names; combat, illness, lawsuit, travellers, survival of spouse; R, LN, PN; British Library, Sloane 3160; Text G in Appendix 2.

3. No title; used by Alexander; combat, illness, travellers, survival of spouse; R, VV, LN; London, British Library, Sloane 1609; Text H in Appendix 2.

4. No title; no names; combat, illness, lawsuit, travellers, survival of spouse; R, VV, LN, PN; Oxford, Bodleian Library, Ashmole 189; Text J in Appendix 2.

5. No title; Aristotle, used by Alexander; combat, lawsuit, illness, survival of spouse; R, VV, LN; London, British Library, Sloane 121; Text K in Appendix 2.

6. ‘Which of the opposite Parties that are at War with one another shall get the better’ and ‘To know whether the Husband or the Wife shall be the longer Liver’; combat, lawsuit, survival of spouse; R, VV, LN; Peter and Paul; printed in Erra Pater, The Book of Knowledge treating of the Wisdom of the Ancients, made English by W. Lilly, printed for R. Ware, London, 1750; Text L in Appendix 2.

APPENDIX 2

ARABIC, LATIN AND EARLY ENGLISH TEXTS OF THE ONOMANCY
‘THE VICTORIOUS AND VANQUISHED’


On the Victorious and the Defeated

An indispensable thing for thee, O Alexander, is this, that thou shouldest find out the name of the person thou art going to fight with, and do not engage in battle unless victory can be computed. This is one of my secrets which I used to practise when I was in thy royal company, concealing it from thee, and which I am now disclosing to thee, according to our covenant. It is one of those mysterious sciences which God has inspired me with and directed me to, through His mercy and wisdom.

(The number-letter equivalents follow.)

O Alexander, count the numbers of the letters of the names of the commanders of both the armies, according to the above table. Then divide the total of each name by nine, and keep in thy mind the remainder of each. Then predict according to the following table, which is correct and unfailing, and do thou note it well.
If the remainders are one and nine, one will overcome nine. If one and eight, eight beats one, one and seven, one beats, one and six, six beats, one and five, one beats, one and four, four beats, one and three, three beats, one and two, two beats, one and one, the aggressor wins.

If two and nine are left...

If nine are left in both, the aggressor shall win.

Therefore study this science, O Alexander, and practise it according to thy wisdom and understanding. Thou shalt be victorious and successful, if God wishes.

Text B.

Cambridge, Trinity College, R.17.1 (The Eadwine Psalter), ca. 1160, fol. 282v.

Dies solis .xxiii. lune .xxvi. martis .v. mercurii .xx. iovis .xviii. veneris .xxx. saturni .xxiii.

Argumenti prima distinctio.

Unum et unum, minor vincet.
Unum et duo, qui habet duo vincet.
Unum et tres, qui habet unum vincet.
Unum et quattuor, qui habet .iiii. vincet.
Unum et quinque, qui habet unum vincet.
Unum et .vi., qui habet .vi. vincet.
Unum et .vii., qui habet unum vincet.
Unum et .viii., qui habet .viii. vincet.
Unum et .viiii., qui habet unum vincet.

Secunda distinctio.

Duo et duo, qui fortior est vincet.
Duo et tres, qui habet .iii. vincet.
Duo et .iiii., qui habet .ii. vincet.
Duo et .v., qui habet .v. vincet.
Duo et .vi., qui habet .ii. vincet.
Duo et .vii., qui habet .vii. vincet.
Duo et .viii., qui habet .vii. vincet.
Duo et .viiii., qui habet .viii. vincet.

Tercia distinctio.

Tres et .iii., minor vincet.
Tres et .iiii., qui habet .iiii. vincet.
Tres et .v., qui habet .iii. vincet.
Tres et .vi., qui habet .vi. vincet.
Tres et .vii., qui habet .iii. vincet.
Tres et .viii., qui habet .viii. vincet.
Tres et .viiii., qui habet .iii. vincet.
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Quarta distinctio.

Quatuor et . . . iii, fortior vincet.
Quatuor et . . . v, qui habet . . . v vincet.
Quatuor et . . . vi, qui habet . . . iii vincet.
Quatuor et . . . vii, qui habet . . . vii vincet.
Quatuor et . . . viii, qui habet . . . iii vincet.
Quatuor et . . . viii, qui habet . . . viii vincet.

Quinta distinctio.

Quinque et . . . v, minor vincet.
Quinque et . . . vi, qui habet . . . vi vincet.
Quinque et . . . vii, qui habet . . . v vincet.
Quinque et . . . viii, qui habet . . . viii vincet.
Quinque et . . . viii, qui habet . . . v vincet.

Sexta distinctio.

Sex et . . . vi, fortior vincet.
Sex et . . . vii, qui habet . . . vii vincet.
Sex et . . . viii, qui habet . . . vi vincet.
Sex et . . . viii, qui habet . . . viii vincet.

Septima distinctio.

Septem et . . . vi, minor vincet.
Septem et . . . vii, qui habet . . . vii vincet.
Septem et . . . viii, qui habet . . . viii vincet.

Octava distinctio.

Octo et . . . vii, fortior vincet.
Octo et . . . viii, qui habet . . . vii vincet.

Nona distinctio.

Novem et . . . viii, minor vincet.

De egris et contencione divide per . . . viii; de conjugatis, per . . . vii...

O. P. Q. R. S. T. V. X. Y. Z.

Text C.

British Library, Arundel 339, s. xiv, fol. 69r.

Regula perfectissima, archanissima, divinissima, in qua satis laboravit.

(31) This is an error for . . . vii.
Pitagoras et Ptolomeus, difficilis originaria notione quam nullus iam mortalium puto sciat excepto divino sapientie secretali Abreo. Hanc Alexander Magnus secum habuit in omni orbis discursu et omnia futura prospera vel adversa previdens cuncta subegit. Si egri restitutionem vel occubitum, in pugna duorum, uter victurus fratres duos aut sorores vel legitime coniugatos, mox ut nomina scieris iudicabis; amicum peregre vadentem, negocium bene vel male die hac immo hora diei inceptum signare poteris et alia. Numeros scribemus omnium litterarum et omnium planetarum ut nomine vel nominibus de quibus queris supputato vultis et facta summa utriusque per .vii. vel per .viii. divisionem per regulas subscribendas, quotus quotum vincat numerum plane ad inferiora decurrendo invenias. Si fuerit negocium unius numerorum nominum cum numero stelle que tunc principatur coaptabit diligens inquisitor, nec unquam fallet. Numerum elementorum statim collocemus.

Attende quomodo .xxiii. horis naturalis diei presit quique planeta. Dum ergo vis videre bene vel male cessurum, quavis hora inceptum negocium sumpto astrolabio horam inveni et quis ea die illi hore dominetur planeta considera, et numerum nominis tui vel eius de quo queris accipere et divide per .viii., similiter et numerum planete, et uter numeros numerorum superaverit, ibi est efficatia; si vicerit stella, malum, si tuum nomen vel alius, bonum. Sic de nomine et stella et pugna erit. De coniugatis vel germanis, facta aggregatione summarum, per .vii. divide et habes quod vis. Super .viii. vel .vii. restant ex alterutra parte tot et tot, quibus inventis, sequentem intuere inscriptionem.

Prima argumenti distinctio unus et unus, qui minorem, vincet.

Unus et duo, qui habet duo vincet,

(Number-letter equivalents, see below.)
(Planet-number equivalents, see below.)

Text D.

British Library, Additional 15236, s. xiiiex, fol. 129v.

The table of distinctions.

Quoniam presciencie verissime perfecta comprehensio soli deo substance litteraliter constituta consistit neminem contradicere puto, quapropter et is qui tota mente atque humiliter supplicaverit huius argumenti scientiam confitebitur a domino deo esse, quia omnis sapientia a deo est, qui suis rerum secretarum notiam sua miseracione largitur, sicut Philemo et Pictagore fecit per astronomicam artem istius argumenti paginam plenius innotescere ut per latinas litteras numero singulis earum attributo ut superius potest super quemlibet summatas volenti iudicare de egris, de coniugatis, de contencione, de iter agentibus, de pugna, sive quacumque re alia que fit inter duos veritatem per propria nomina quis eorum vincet,
procul dubio iudicare valebit. Sume igitur numerum prescriptum attributum litteris nominum de quibus fit questio, et collecta summa de quorumcumque re queratur, exceptis coniugatis, divide per novem, et quod superfuerit retine, et in distinctionibus suprapositis occurret tibi iudicium.

De coniugatis vero divide per septem, et quod superfuerit similiter retine — scilicet numerus vincens superans in illis. In coniugatis vero supervivet.

De egris autem si stella — id est planeta — vicerit, morietur; si homo vicerit, evadet mortem, si deus voluerit.

Text E.

British Library, Sloane 3554, s. xv, fol. 12r.

Sume duo nomina non apposita sed que a nativitate sunt, sive de contencione sive de egris sive de coniugatis quis prius morietur, vel de pugna vel de iter agentibus vel unde scire volueris, et ex utrisque nominibus per unamquamque litteram unam facies numeracionem, sicut ibi numerata sunt et divide per novem (Et de coniugatis divide per septem). Et quicquid de novem vel de septem remanserint quere in pagina argumenti, et invenies quis prius morietur, vincet vel vincetur vel redibit, et sic de aliis. Ista regula et tabula deserviet operi sequenti ex alia parte folii istius.

Fol. 12v.

Prime combinacionis distinctio,

Unum et unum minor\textsuperscript{32} corpore vincet.
Unum et duo, duo vincent.

Secunde combinacionis consideracio.

Duo et duo forcior vincet.

Tercie combinacionis consideracio.

Tria et tria minor vincet.

Fol. 13r, Tabula prima.

(Number-letter equivalents, see below.)

\textsuperscript{32} supra al(ter) est maior secundum alium librum.
Tabula vile el morlis.


Tolle nomen stelle quo die eger decubuit et nomen egri. Divide numeros appositos litteris nomini egri, numeros etiam appositos nomini stelle, utpote de egris et contenciosis divide per 9, de coniugatis per 7. In fine autem divisionis qui maior numero gaudet victor erit et evadens nisi desuper aliter per Platonem disponatur.

Argumenti finis huius doctrine talis est.

Si vis scire de duobus pugillibus quis eorundem vincere debeat, si fuerint milites, scutiferi vel pedites, aut quis eorum vicit si bellum factum fuerit, aut de aliquo egro si debeat vivere vel mori, aut de viro et uxore quis eorum primo moriatur et sic de consimilibus, sic operaberis.

Sume nomina pugillorum quecumque fuerint que sint prima et simplicia et in Latino sumas nomina et pro qualibet littera nominis unius sume numerum tantum quota littera fuerit in ordine alphabeti, et aggregabis numeros omnes adinvicem. Et sic facies de qualibet nomine et de pugillibus et de egri. Deinde divide per novem quemlibet numerum per se et, quod post divisionem remanserit, hoc est arithmum et cuius arithmum vincit, ille vincet.

Verbi gratia: esto quod post divisionem ex uno nomine remaneant 5, et ex alio remaneant 6, dico quod ille cuius arithmum est sex vincet, sicut tactum est in distinctionibus arithmi supradictis. Si vero post divisionem nihil remanserit, 9 erit arithmum. Si vero numerus omnium litterarum non completerit 9, sed solummodo 6 vel 5 vel minorem numerum sicut hoc nomen sab, vel hoc nomen, ada, vel aba, tunc numerus totus est arithmum eius.

Nota tamen quod cum de viro et uxore vis probare divisas per 7 et in aliis questionibus divisas per 9. Item de egro cum vis probare utrum vivat vel moriatur, scias planetam in cuius die eger primo decubuit (14v) et accipe nomen planete et nomen egri et ex illis ar<ithm> a elice, et si arithmum planete vicerit, moritur eger sine dubio, et si arithmum egre vicerit, vivet eger.

Nota eciam quod cum de viro et uxore operaris, uxor intelligitur esse minor sive debilior, vir vero forciior sive maior. Cum vero de planeta et egro, planeta intelligitur maior, vir vero minor sive eger. Cum vero de pugillibus, appellans dicitur maior, appellatus vero minor.

Hec ars que dicitur ar<ithmum> Tholomei per quam si recte in Latino nomina sumpseris et veraciter et proprie litteras numeraveris, finem intentum de supractictis et consimilibus consequeris. Nec distinguas utrum .h. sit littera, quia secundum hanc artem simpliciter est littera.
Sunt enim 23 littere supposte in hac arte. Reliquum est de hoc admirari et creatoris nomen laudibus exaltari qui solus vere noscit et aliquas scintillas vere sciencie nobis revelavit.33

Text F.


Here sues a calculation to knowe by of tuo men feghtyng to-gidere, wheber sale be overcomen.

Take tuo names of men whilk are gyven toem in their birthe, if theu wille wite of thoem tuo feghtyng to-gider or stryuyng wheber sale overcome, or of tuo folkes weddede wheber sale lenger life, or of tuo folk goyng any viage wheber sale come agayne, or of a seke man wheber he sale dye or life. Counte the name of ilkone of thoem by the letteres of the Abc that sues in the ende of this chapiter, and by the noumber that es on ilk letter theer-of. And when theu has so done departe al the hole by nene, saue of thoem that are weddid, by sevene loke theu departe. And by the ouerplus of the nene or of the sevene, theu salt se by one of this eighthe reules, who sale overcome, who sale rafer dye, who sale rafer come ageyne. And if you wille wite of any seke wheber he sale dye or life of that sekenes, take than the name of that seke and of the lune and of the day in whilk he toke his sekenes, and acounte as we taght biffer and if the seke mans name overcomes he sale life, and if the lune overcome, with-outen doute he sale dye. By this experiment Alisander the grettest conqueroure that euer was overcome many batayles. Wherfore the first reule es this: one and one: the lesse sale overcome. One and tuo: he that has tuo sale overcome. One and thre: he that has one sale overcome. One and foure: he that has foure sale overcome. One and fyve: he that has one sale overcome. One and six: he that has six sale overcome. One and sev: he that has seve sale overcome. One and eght: he that has eghte sale overcome. One and nyn: he that has one sale overcome. Tuo and tuo ... 

Nowe after the reules go we se the Abec of his craffle, wher-by, as we biffer hight, this countes sale be caste.

Text G.

British Library, Sloane 3160, s. xv, fols 172v-173.

yif that ye will witt of a mon that is seke wheber that he will leue or die lok what dai in the weke that he fell seke on furst & take that noumber that

(33) relevavit ms.
longethe for that daie & the number of the age of the mon & the number of all the letters of his name at the font stone & make an hole soume of the number and departe them be xxx as many tymes as xxx be in the hole number & loke if thou hast countyd or elles if hit be but xxx lok where thou fynde the number in the sphere above or beneve if hit be above he will lyve yif hit be beneve he will dee.


And these ben the numbers of the daies that followen: Sol . xv. 15 Luna . xvii. 7 Mars . xvi. 31 Mercurius . xxv. 9 Iovis . xi. 20 Venus . xv. 12 Saturnus . xviii. 14.

yif thou will count for batell account the names of the men by the letters & the daie in the wek & the houre that that wold feyt in & make an houll soume be xxx as hit is afore sayd.

To know of hem that feghten with in lest or pledon at a barre account hur names & depart the number be ix & be that number that leuythe ouer ix of iche name tho shalt whitte in the distinctoune & this may thou witt what questioun thou wolde haue answere of.

To know a mon or a womon that falls sike whether he or she shall liff or dee take all the numbers of the letters of his proper name not of his surname & departe them be seve & loke what be leuythe ouer .vii. if ther leue no number put therto on & take the number of the daie that he fell seke & departe all the number in vii & be that number that leuythe loke the distinctoune & thou shall witte the sothe.

yif thou will wette queder it be gode nouth to take a jornay to goo or to rid loke what felisship thou shall haue wit the & the riȝt names of hem & of his elf & the age of the mone & the number of the daie & sett all in an hooll soume be .iii. & yif there on thou shold nother sped yif the leue to thou shold nouth riȝt well & if ther leue iii thou shalt rith nother sped thou is proved mony yere ago.

Also if a mon & a womon be weddid togedur whiche shall lyue the length count hur names be .vii. iche be themsel & loke the distinctouns.

(No 'distinctouns' follow).

Text H.

British Library, Sloane 1609, s. xv, fols 27v-28v.

The riche kyng Alisaunder kyng Philippis sone of Grece that alle londys and alle kyngdomis conquerid throw strengthe and vertu kyngis

(34) i < > that unclear.
(35) not.
emperouris princi dukis and alle lordis ouercom and slow, as a noble knyth he wrouth be this experiment most. That ye shal se thuer a gre clerk whanne he hadde ony gre jurne to done of what cas that it were. And this experiment may serue to wete who shal haue the victori in bataylis, in plee, or of a man or of womman that be weddid who shal lyue lengest, of a manis siknesse yif he shal lyue or deye. And do in this maner: To wetyn of plee or of batayle do thus: Take the cristene manis name of the tweyne men that shul pleetyn togedre or fyghten and gadre out the lettris of ech name be the self out of the a b c that folwith here after. And loke what nombre folwith everye lettre of hise name be the lettres in the a b c and alle that nombre of alle the letteris of his name sette hem alle togedere in oo nombre and departe the nombre in as fele . ix. . ix. as thow may, and loke if there levee ony nombre after the . ix. or elles if there be but evene upon nynys, and right as thow dost on that on do on that othere. And be the 36 levyng of the nombres thow shalt wete ho shal haue the victory. This is the a b c: a . iii. b . iii. c . xxi. d . xxiii. e . xxv. f . iii. g . vii. h . vi. j . xx. k . xv. l . xxi. m . xxiii. n . xv. o . ix. p . xix. q . xiii. r . xvi. s . ix. t . viii. v . vi. x . vi. y . xvi. z . ixxx. (sic)

(fol 28r) Thanne the names ben devydid and there leve ouer the . ix. oon on that part and but oon o the tother part, the werse shal ouercome. Of to and . i. . ii. ouercomith. Of . iii. and . i. <...> and . iv. . iv. 38 shal ouercome. Of . i. and . v. . i. shal ouercome. Of . i. and . vii. . vii. ouercomith. Of . i. 39 and . viii. . viii. ouercomith. Of oon and . ix. . ix. ouercomith.

The secunde distyncoun. Yif there leve . ii. and oon of that oo part and . ii. of that other part, the betyr shal ouercome of . ii. <...> and . iii. . iii. 40 ouercomith. Of . ii. and . iii. . <...> ouercomith. Of . ii. and . v. . v. ouercomith. Of . ii. and . vi. . vi. ouercomith. Of . ii. and . vii. . vii. ouercomith. Of . ii. and . viii. . viii. ouercomith. Of . ii. and . ix. . ix. ouercomith.

The thridde distyncoun. If there leve . iii. . i. of that oo part and . iii. on that other part the bettere man ouercomith. Of . iii. and . iii. . iii. ouercomith. Of . iii. and . v. . v. ouercomith. <Of> . iii. and . vi. . vi. ouercomith. Of . iii. and . vii. . iii. ouercomith. Of . iii. and . viii. . viii. ouercomith.

The fourte distyncoun. <Yif> there leve . iii. on of that oo part and . iii. on of that other part, the strengere ouercomith. Of . iii. and . v. . v. ouercomith. Of . iii. and . vi. . vi. ouercomith. Of . iii. and . vii.
The fift distinctioun. Yif there <...> v. on of o that part and v. on that other part the bettere shal overcome. Of v. and vi. ouercomith. Of v. and vii. fyve ouercomith. Of v. and viii. viii. ouercomith. Of v. and ix. ix. ouercomith.

The sest distinccion. Yif ther leve vi. on that oo part and vi. on the tother part, the strengere shal overcome. Of vi. and vii. vi. ouercomith. Of vi. and viii. vi. ouercomith. Of vi. and ix. ix. ouercomith.

The .vi. distinccion. If there leve but viii. of the oo part and viii. on that othere strengere shal overcome. Of viii. and ix. ix. ouercomith.

The .ix. distinccion. Yif leve .ix. on the oo part and .ix. on the tother part, the bettere shal overcome.

Thus enden the .ix. distinccionys, that is to seyn the .ix. departyngys.

NUNC FINEM FECI DA MICHI QUOD MERUI.

Text J.

Oxford, Bodleian Library, Ashmole 189, s. xv1, fol. 80r

Now shall folowe the distinctioun and the rubrysh in englysh to knowe what thou wylt of batell or victorie or of disconfitte or whedre thou seke shall lyve or dye, and in like wyse of a man and hys wyfe whedre of them shall ouerleve odre, and in like wyse of oone or ii goynge in a vyage or pilgrimage wych shall firste retorne, and as for batell contraversy and debate and contentioun thos nombres must be devyded by .9. and all cause of mariage muste be devyded by .30. and aftre by .9. and agayne by .7. and procede as ye do wyth the odre tables but take thee planett with her nombre, and the age of the mone.


The fyrst distinctioun.

1 and 1 the lasse hase thee bettre.
1 and 2 ii. hath thee victory.

(41) v. ms.
(42) In each case the planetary symbols are given for the planet.
1 and 3 i vincit.
1 and 4 .iiii. overcometh.
1 and 5 i vincit...

Fol. 80v.
The .ix.\textsuperscript{th} distinctioun.
ix and 9, the lasse wynnethe.
Gratias nos agamus deo.

\textit{Text K.}

British Library, Sloane 121, s. xvi.

Fol. 120v (Letter-number equivalents in circle).
The great king Alixander used this arte by the teachinge of Aristotle
to knowe the event of strange thinges before they hapned.

Therefor this arte serveth to know whoso shall have the victorye in
Battaile or in plea, or of man or woman that is maried which is like to
lyve longeste, or in sicknes whether they shall live or dye. Doe in this
manner.

To knowe of plea or Battell doe thus: Take the names of the men that
shall plead or fighte againste eyther, and gather out the letters of their
names eche by itselffe out of the A B C that foloweth or is in the speere
above, and loke what nomber is of everye letter of the names of them
\textit{(lacuna of half a line)} and all the nombers of the names and of all the
letters sett together in one nomber and divide it into nines and caste
them awaye and looke what remaynethe, note downe, or if it be
\textit{<noghte>} be nine. And as ye doe of the one name doe with the other,
and by that is leste of eyther name you shall know who shall have the
victorie acordinge to this alphabett.

Fol. 121r.

Prima distinctio: when the names are devided and there remaine above
9 on the one syde and but one on the other, the worse shall overcome. Off
2 and 1 duo shall overcome. Of 3 and 1 one shall overcome. Off 1 and 4
fower shall overcome ...

Thus endeth the .ix. distinctions that is to saye the .ix. departings for
to knowe of plea and Battaile.

Fol. 121v.

For to knowe of them that be maried who shall lyve longeste. Departe
the number of their names into .vii. and that which remaynethe above
.vii. as often as it cometh take the number and goe to the distinctions
and you shall knowe whoe shall overcome—that is who shall lyve
longeste of the two.
To knowe whether a sicke man shall lyve or dye. Take the nomber of his name and the nomber of the stere that longeth that daye of the weeke, and departe or devide the nombers as you doe of plea or battaile, and by that remayneth of anye parte you shall knowe yf he shall lyve or dye. These be the nombers of that belongeth to the dayes of the weke for the steres: sonndaye\textsuperscript{43} xxiii, monady xxiii, tewsdaye vi, weddensdaye xx, thursdaye xix, fridaye xxx, saturdaye xxxiii.

Thus shall you knowe yf it be good and evell to Begine anye jornye or goe in anye waye. Alt the coniunction to the ages of the moone, and the age of the daye of the weke—that is to saye the nomber of the steres of the daye and the letters of the owne name of those that shall goe with thee, and all these nombers put together, and then begine att the firste (lacuna) and saye Christus, and att the seconde, deus, and at the thirde, homo, and so doe till all the nombers be spente, and if it riste upon Christus he shall spede well, and yf it leave upon deus, he shall spede well, but not so well, and yf it reste upon homo it is not good to g\textsuperscript{o}e oute, for he shall not spede well in no wyse for certayne.

\begin{description}
\item[VI.] Alphabetical Tables, rightly resolving sundry questions and demands, etc.
\item[I.] Which of the opposite Parties that are at War with one another shall get the better.
\begin{itemize}
\item A 13, B 3, C 22, D 24, E 22, F 3, G 7, H 6, I 20, K 1, L 16, M 23, N 12, O 8, P 13, Q -, R 13, S 9, T 8, V 2, X 6, Y 6, Z 4.
\end{itemize}
\end{description}

Now to put this Alphabet rightly in Practice, you must find out the proper names of the contending parties who shall either make Wars, or go to Law with each other. Then put their names into Latin, and let it be in the Nominative case singular, observing the Orthography. And then as you see in the Alphabet, place unto each of those names the numbers belonging to him, according to the table here before written, and put the Total of the said numbers together, or—which is the same thing—each Man by himself, and when you have so done, divide them by 9, and by what remains on the one part and the other, you shall find it with ease. Next take notice of the following Rules by which you may learn what shall befal the one and the other; and if it happen that after you have divide\textsuperscript{d} the Whole by 9 /p. 78/ nothing remains, you must take the last 9 instead thereof, as Experience will afterwards teach you.

\begin{itemize}
\item (43) sonndaye steres ms.
\end{itemize}
Now if very rarely, if at all, ever happens, that the opposite Parties are of the same name, therefore search diligently for their right names, and that you may be the better acquainted with this rule, suppose for Example's sake, that those two contending parties should be Peter and Paul, if you but consider what has been laid down before, you shall be able to give a right judgement. But you must lay this down for a certain Maxim. That the divine being is the great Causer and Disposer of all effects, changing and altering them according to his own Will. And therefore what is here said, is according to the Starry Influences, when no superior Power interposes:

<table>
<thead>
<tr>
<th>P 13</th>
<th>P 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>E 22</td>
<td>A 17 (sic)</td>
</tr>
<tr>
<td>T 8</td>
<td>U 2</td>
</tr>
<tr>
<td>R 13</td>
<td>L 10 (sic)</td>
</tr>
<tr>
<td>U 2</td>
<td>U 2</td>
</tr>
<tr>
<td>S 9</td>
<td>S 9</td>
</tr>
</tbody>
</table>

67; makes 7 times 9; makes 4 times 9; rests 4 rests 1

And so in this Instance is shewed unto you their Names, Numbers and Sums, which being divided by 9, to Peter there remains 4, and into Paul rests 1.

The following Table likewise lets you see which of the two shall get the better, according to the rule foregoing:

| 1 the conqueror | 3 5 7 8 |
| 2              | 1 4 0 9 |
| 3              | 2 5 7 9 |
| 4              | 1 3 9 8 |
| 5              | 1 4 7 9 |
| 6              | 1 3 6 8 |
| 7              | 2 4 6 8 |
| 8              | 1 3 5 7 |
| 9              | 2 4 9 8 |

To know whether the Husband or the Wife shall be the longer Liver.

To resolve this Question, the proper names of the Man and the Woman must be writ in Latin, and the number belonging to each Letter added thereto, as in the foregoing [the] Alphabet, then, gathering the Number into one total, divide them by 7, and if the Remainder be even, the Man shall live the longest, but if odd, the Woman.
### Number-Letter Equivalents

<table>
<thead>
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<th>A</th>
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<th>3</th>
<th>3</th>
<th>3</th>
<th>3</th>
<th>3/3 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
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<td>3</td>
<td>3</td>
<td>3</td>
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<td>3</td>
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<td>3</td>
<td>3/6 B</td>
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<tr>
<td>C</td>
<td>22</td>
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<td>24</td>
<td>27/22 C</td>
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<td>3</td>
<td>3/4 F</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
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*Victorious and Vanquished Sphere of Life and Death*
ONOMANCY

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Addendum

Since this article went to press Text J above has been edited in W. L. Braekman, Studies on Alchemy, Diet, Medicine (sic!), and Prognostication in Middle English, Scrip/a, 22, Brussels, 1988 (for 1986), pp. 105-11. These further Ms of 'The Victorious and Vanquished' have come to my attention. The descriptions conform to those in Appendix I above.

G. Latin. 7. No title; R, VV, LN, PN; Ptolemy and Pythagoras, Theodosius and Agminea, Leo and Alexander, Taurus and Eneas; London, British Library, Arundel 292, s.xiii, fols. 111v-112v. The rubric is that of Text D (with 'phiolomeo' for 'philemo' in line 5) with an additional section.

8. No title (begins 'Si quis vult scire de duobus contencionem habentibus, quis eorum vicerit...'): combat, illness, survival of spouse, travellers; R, VV; London, Wellcome Foundation, 559, s.xv, fols. 46r-v.

H. English. 7. No title (begins: 'Here begynneth a proue for to wete...'): combat, travellers, illness, survival of spouse; R, VV, LN, PL; VV repeated in Latin; Cambridge, St. John's College, B.15, s.xv, fols 51v-52v.

8. A rewle for dyvers thynges; illness, etc.; R, VV, LN, PN; alphabetical lists of female and male names; Yale, Beinecke, 558, s.xv codex, fols. 71r-73v. This text is in a mixture of English and Latin.

9. Alexanders distinctions & iudgment (salomons dystynctyons); survival of spouse; R, VV; Yale, Beinecke, 558, s.xvi codex, fol. 62v.

J. German. 1. No title (begins: 'Disz ist czu wissen...'); illness; R, VV, LN, PN; text edited from cod. Berol. 244 9s.xivv*, fols. 193r-v, in G. Eis, Wahrsagelexts des Spätmittelellers (Berlin, 1956), pp. 50-52.

2. Tabula Pytagorei; illness, survival of spouse; R, LN, PN; Stuttgart, Württembergische Landesbibliothek, HB XI 43, s.xv*, fol. 47r-48r.

I am grateful to Richard Beadle, Richard Kieckhefer, Linda Voigts and Christoph Wiesser for these references.
A NOTE
ON TWO ASTROLOGICAL FORTUNE-TELLING TABLES

In *Revue d'histoire des textes*, 6 (1976), pp. 267-304, Paul Kunitzsch published a curious fortune-telling table which he had found in two manuscripts of the twelfth century — *Paris, Bibliothèque nationale, lat. 14754 (P)* and *Hanover, Niedersächsische Landesbibliothek IV.394 (H)*. The table (henceforth: 'Kunitzsch's table') is in the form of a grid with two axes. Along the vertical axis are written the names of the planets and three other astronomical terms — the full moon, the ascending node, and what is probably the Dog Star. Along the horizontal axis are ten of the twelve signs of the Zodiac, written from right to left. In each of the hundred squares of the grid there is a prediction written twice: the upper version gives the prediction in Latin, the lower, in Arabic transliterated into Roman script. In theory the reader may follow the coordinates corresponding to the prevailing astronomical situation and discover what activity he should be engaging in. For example, if the Moon is in Scorpio he should be listening to the sound of a lute. However, the astrological terms, in all probability, serve merely as a means of organizing the data and one should not look for any sophisticated astrological practice here.

Kunitzsch was not able to find any table in Arabic or Latin which was similar to this table. Indeed, he could bring forward only one other example of a bilingual Latin-Arabic text, this being a chapter on the climes from *De horologio secundum alcoram*. The form of the table, however, is not unique. Kunitzsch has observed that in both *H* and *P* the table immediately precedes the tables of the *Preceptum Ptolomei*, a partial translation of the *Handy Tables* of Theon, made from Greek in the sixth century. When we turn to two early Latin manuscripts of astronomical tables, *Leiden, Bibliotheek der Rijksuniversiteit, Seafinger 38 (S)*, of the eleventh century ¹ and *Paris, Bibliothèque nationale, lat. 16208 (N)*, of the early thirteenth century ², we find a table which looks very similar to Kunitzsch’s table. On folio 135 r° of *N* the table follows a copy of the Toledan Tables. It is headed *Tabula *

prenostica Salomonis. The horizontal axis gives the names of the twelve signs of the Zodiac, this time, in contrast to Kunitzsch's table, from left to right. The vertical axis gives twenty-four ‘unexpected events’. These are, from top to bottom:

1. De sonitu domus
2. De tinitu aurium
3. De voce corvi
4. De voce galli
5. De motu oculorum
6. De sonitu ignis
7. De ululatu canis
8. De voce soricis
9. De incensis vestibus
10. De terremotu
11. De clamore gatte
12. De inquinata veste femore
13. De casu avis iuxta in via
14. De subito candela extincta
15. De intuitu gatte in foramine
16. De pulsu brachii
17. De pavore somnii
18. De occursu fere
19. Si sorex vestimentum roserit
20. De eo si vestimentum lanerit
21. De subito incursu bestie in curte
22. De crepitu ignis
23. Si ignis sintillat
24. Si vestimentum inquinatum san-gui(ne)

The creaking of the house
Ringing in the ears
The cawing of a crow
The crowing of a cock
A tic in the eyes
The hissing of the fire
The howling of a dog
The squeak of a shrew-mouse
Clothing on fire
An earth-tremor
Caterwauling
Clothing stained with filth (?)
A bird falling in your path
A candel suddenly extinguished
On seeing a cat through a hole
A spasm in the arm
A night terror
On meeting a wild animal
If a shrew-mouse has bitten a hole in a garment
If it has torn it
The sudden entry of a beast into the courtyard
The crackling of the fire
If the fire gives off sparks
If a garment is stained with blood

The 288 predictions from the combinations of a sign of the Zodiac with one of these unexpected happenings range from single-word statements: 'good' (bonum), 'happiness' (leticia), 'difficulty' (angustia (sic!)), 'illness' (egritudo), 'sadness (dolor), and 'journey' (via), to more precise indications: 'he has lice in his clothing' (pediculos habet in veste), 'he will have a pain

3. Reading fetore for femore.
4. Reading lanaverit.
in his heels' (egrotabit in calcariis), 'a separation from a friend' (separatio amici), 'a patriarch will die' (patriarcha morietur). Not surprisingly, many predictions concern money (inventio pecunie, minoratio pecunie, pecunia et magnitudo, etc.), status (ditabit vel regnabit, augmentum honoris, auferetur a potestate, etc.), enemies (inimicus egrotabit, inimicus morietur, etc.), and marital or sexual affairs (uxorem habebit, uxor morietur, fornacatio, etc.). There is a good chance that he who consults the table will find what he likes (inventiet quod amat), and eventually receive refreshment of the soul (refrigerium). The language of this table has vernacular traits (curtis for 'courtyard', insecurita and potesta without the final s). There is no evidence that an Arabic original lies behind the table, and it is more likely that it might be based on a Greek version (cf. the term patriarcha). Kunitzsch's table must have been adapted from an Arabic table. Its predictions do not correspond to those of the Tabula prenostica Salomonis. Nevertheless, both tables have the same 'feel', and both add a lighter tone to the folios of technical astronomical tables they accompany.

The Tabula prenostica Salomonis was not without influence in later centuries. It is debatable whether Chaucer is referring to this table in particular when he mentions, among other signs used for divination, 'crakkinge of houses' and 'gnawynge of rattes'. In the sixteenth century, however, we know of one manuscript and one printed edition of a work which is entitled: [Liber] Zebelis regis et sapientis Arabum vetustissimi, de interpraetatione quorundam accidentium, tam externorum quam internorum, sive eventuum innopinatorium, rarorum et insolitorurn, secundum Lunae motum, per duodecim zodiaci celestis signa, observationes accuratissimae Zebelis. The printed edition is bilingual, in Latin and German, and begins with an elaborate preface by the German alchemist Heinrich Khunrath of Leipzig. In this he states that he took his text from a manuscript belonging to the Electors of Brandenburg (possibly the manuscript still in Berlin), and justifies the work in the following way: God speaks to men by using all his creatures like letters of the alphabet. Thus the kinds of unexpected happenings mentioned by Zebel indicate the voices and sentences of God. Even the Pytha-


8. Khunrath (1560-1605) is best known for his lavishly illustrated Amphiteatrum Sapientiae aeternae (Prague, 1598); the Liber Zebelis appears to be the earliest printed work bearing his name.
goreans understood this. 'I have examined', Khunrath says, 'and put to the proof the observations of Zebel on many occasions, and found them not at all frivolous or false. For God speaks to the humblest of men through these unexpected occurrences'. Khunrath's preface is followed by that of Zebel, which outlines the virtues and benefits of astrology. Turning to the work at hand, Zebel states that no event is truly fortuitous since ultimately each thing has God as its legitimate cause. Zebel's grandfather handed down the secrets of the art to Zebel, including a volume with 1,300 chapters, entitled 'the book of the judgements of unexpected events' (liber iudiciorum inopinatorium eventuum). From this book, at the urging of Zebel's son Selam, Zebel extracted the most remarkable parts and summarized them, adding some things, but omitting a large part of the work. Zebel's grandfather, incidentally, also wrote ten books 'about the administration of the state' (de administratione Reipublicae) and was a good king. The preface ends by emphasizing that nobody should attempt to use the book who does not take it seriously and wishes to deride or scorn its contents. These contents are precisely those 'unexpected events' of the Tabula prenostica Salomonis with others added: sonitus parietum, tinnitus aurium, corvina crocitatio, gallinus cantus, motus oculi, sonitus ignis, canis ululatus, de voce soricis, exustio vestimenti, motus terrae, clamor cattae, ingravatio femoris, avis cadens in terram, obviatio ferae silvarum, extinctio candelae, etc. 9. For each event, a very short prognostication is given for the Moon in each of the signs of the zodiac.

APPENDIX

With the help of Simon Hopkins, now of the Hebrew University, Jerusalem, I had been working independently from Paul Kunitzsch on the copy of the fortune-telling table in Paris, Bibliotheque nationale, lat. 14754. The Service photographique of the Bibliotheque nationale kindly provided us with a very clear 24.30 cm. photograph of the table (fol. 244 v°), and, on the basis of this copy, in certain cases we arrived at different interpretations from those adopted by Kunitzsch. While acknowledging Kunitzsch's masterly achievement in deciphering and interpreting the table, I would like to suggest, by way of an appendix, some variant interpretations which might be worth considering 10.

1. Convenienitia desideria/bilos emel. Possibly bulūgh āmāl, 'attaining desires'.

9. The 'unexpected events' are numbered, in an erratic way, up to 126.
10. The item numbers are those of Kunitzsch. The reading is that of MS P unless
9. Manducare pullum anseris/ekel poton. Instead of the ingenious suggestion that a Romance word appears in the Arabic phrase, it might still be possible to consider poton (which is clearly written in both MSS) as the Arabic word bat (‘duck’). This would be closer to the Latin translation anser (‘goose’) than is Kunitzsch’s suggestion of bujûn (‘young dove’).

16. Orare in absconso/dartafahali. The Arabic phrase would seem to mean ‘breaking wind in secret’ (darta fi l-khaft; this is Kunitzsch’s explanation). If so perhaps the Latin orare has derived by stages of corruption through petere (‘to seek’) from pedere (‘to break wind’).

17. Cantilenas bonas/gineantagib. The Arabic phrase is ghina(n) ayyib (‘good singing’). The termination an would be the Spanish Arabic marker of an indefinite noun followed by an attribute 11.

23. Comparare mulum/scire gabal. It is tempting here to accept Richard Lemay’s more natural reading of the Latin — mulum (mului H, mulu P) 12, and interpret the Arabic as a misspelling or metathesis of bagel (from H) or bagal (from P), i. e. bighâl (‘mules’), or baghl (‘mule’).

25. Pellicinam madurinam/faro fenek. The Latin phrase presents no problems: madurinam is a corruption, or a variant influenced by vernacular pronunciation, of marturinam, from marturinus (‘of marten-fur’) 13.

33. Sonitum tubarum/darbarkela. There may be no need to look for a musical instrument in the Arabic phrase. Rather, one could read darb arkîla (‘smoking a hubble-bubble’). The Latin translator may have misunderstood the activity, but tubae, meaning in post-Classical Latin ‘tubes’ or ‘pipes’ as well as ‘trumpets’, would be an approximation to the coils of the hubble-bubble.

35. Continentie gállorum/nikambidic. Perhaps the Latin phrase means ‘pens’ for cockerels; gállorum would seem to be the translation of bi dik (‘of cocks’) 14.

38. Manducare cybum cum tribus rebus factum/ekelmuthel. The Latin translation ‘to eat a dish made from three things’ would suggest a reading such as ekelmuthelath, i. e. akl muthallath (‘a tripled food’) 15. Both

otherwise stated. We are grateful for the advice freely given by Federico Corriente. Derek Latham and Lawrence Picken.


14. For continentia = ‘container’, see R. D. Latham, Dictionary of Medieval Latin from British Sources (London, 1975-). s. v., sense 2 b. I follow the reading of MS P.

manuscripts would represent a truncated form of this word (ekelmuthel P, ekelmuthel H).

90. Ordinem episcopalem/ekelzir. The Arabic phrase is the translation of the Latin phrase in square no. 83 — *manducare cucumeres*, which is not accompanied by its Arabic equivalent. We must therefore read *ekelhir*, i.e. *akl khiyar* ('eating cucumbers'). *z* and *h* are often confused in the manuscripts since they are written in a very similar way to each other.

98. Ascendere lurrim/rukubthor. Since in the Arabic phrase *thor* is plainly written and immediately identifiable as *thawr* ('bull') it may be that the Latin *turrim* is an error for taurum; 'riding a wall' is a rather unlikely interpretation.

16. The Latin and Arabic phrases have become mixed up also in squares 47, 54, 88 and 94.

17. Cf. the zodiac sign *buricathauur* = taurus, and *thob* for *thawb* in square no. 36.
The early history of Arabic alchemy and the means by which it was transmitted to the West are topics as elusive as the Philosopher’s Stone itself, and as passionately pursued. It is not the purpose of the present note to add fuel to the controversies. Rather, I would like to introduce some references to the term “alchemy” in Arabic and Latin texts which historians of alchemy seem to have overlooked up to now, but which would seem to have a bearing on the introduction of alchemy both into the Islamic and into the Christian world.

The term al-kīmiyāʾ can be found in a text belonging to the earliest period of scientific prose writing in Arabic, and, as alkimia, was in turn introduced to Latin readers in a translation of this text made before 1151. The text in question is ‘Umar ibn al-Farrukhān al-Ṭabarī’s k. al-masāʾil (“book of questions”) in 138 chapters. ‘Umar ibn al-Farrukhān al-Ṭabarī was one of the astrologers who participated in casting the horoscope for the foundation of Baghdād in 762. He was responsible for translating important astrological texts from Persian into Arabic, including Ptolemy’s Tetrabiblos, Dorotheus of Sidon’s Astrological Poem and a work on questions of law and ritual purity (the k. al-mahāsin). His k. al-masāʾil belongs to the astrological genre of “interrogations”, in which the astrologer, on being questioned by his client concerning a particular topic, indicates what will happen or reveals what is hidden by looking at the state of the heavens (the horoscope) at the time of the question. After the first few introductory chapters, each of the chapters of the k. al-masāʾil is devoted to a different question. Following chapters related to marriage and before others referring to the weather, there is a chapter on whether to trust the alchemist or not. It may be translated as follows:

Chapter 79. On the knowledge of alchemy (fī maʿarifat amr al-kīmiyāʾ).

When you wish to know concerning a man whether he knows the science (ʿilm) of alchemy or not, assign the ascendent and its lord to the querent, and the seventh and its lord to the man enquired about by the querent. And the house of the knowledge of the man is the ninth from the seventh sign. And see whether this is fortunate or unfortunate, East or West, cadent or in a cardine or withdrawing from a cardine, and whether it is in aspect to the lord of the seventh. And if it is aspecting it and it is fortunate, it indicates that in his hands is a true knowledge (ʿilman raḥīm), especially if the aspect is trine or sextile and there is application and reception between them. But if the aspect is quartile or from opposition, it indicates that there is in his hands something powerful (shayʾan qawfiran) and that he attains it with much seeking, labour and exertion, and this is the case when benefics are aspecting it. And if malefics are aspecting it, it indicates that there is labour (taʾb) in it, and he does not obtain anything from it.

Since the k. al-masāʾil is commonly referred to by the number of its chapters and chapter 79 is a complete chapter in itself, it is unlikely that it is a later addition. Given that ‘Umar’s family is Persian, and that all the translations we know by him are from Persian, it is possible that the material in the k. al-masāʾil comes from Persian sources. However, at the time he
was writing, other astrologers were using Greek and Syriac materials; in fact the writings of one of them, the Syrian Christian Theophilus of Edessa (d. 785), survive both in Greek and in citations by his Arabic colleagues. Since the term al-kimiyā‘ is apparently derived from a Syriac rendering of the Greek χημεία or χημεῖα, then ‘Umar’s source may have been Greek. In any case, the reference to al-kimiyā‘ gives no indication that the term was not familiar to his readers. This is understandable if alchemy was practised in the Arabic world even before theoretical texts on the art were written, which is plausible. Whether this chapter can be regarded as the earliest written record of alchemy in the Islamic world depends on what historical value can be placed on the writings attributed to the Umayyad prince Khālid ibn Yazid (late seventh century) and the Shi‘a imām Ja‘far as-Sādiq (ca. 699–765). In any case ‘Umar’s dates would be almost the same as those traditionally assigned to Jābir ibn Ḥayyān (721–815), and the chapter from his al-kimiyā‘ would be an independent testimony to the lively interest in alchemy at that time.

‘Umar’s k. al-masā‘il was translated into Latin by Hugo of Santalla probably between 1141 and 1151, and possibly even before 1141. Hugo’s translation is incorporated in a collection of three works on judicial astrology—the Liber trium iudicum—addressed in two out of the three manuscripts in which it occurs to Michael, Bishop of Tarazona from 1119 until 1151. All the translations of Hugo which have dedications are dedicated to this bishop, and one of them, we are told, was made from an Arabic manuscript found in the library of the Arabic kings of Zaragoza at Rueda de Jalón. Since this stronghold fell to the Christians in 1141, it is possible that this and other Arabic manuscripts were part of the booty. On the other hand the manuscript could have been acquired earlier through a friendly exchange. Hugo’s translation in the Liber trium iudicum is headed:

Here begins the book of ‘Umar ibn al-Farrukhān al-Ṭabarī, the translation of Hugo of Santalla, excerpted from the volumes of the Ancients, solving many kinds of questions as if being their principal starting-point (as due thought teaches us). This book is divided into 138 chapters.

The wordiness of the title is typical of Hugo’s style, but the translation of chapter 79 is literal enough and makes good sense:

‘Umar, On alchemy.
When the question has been asked whether the discipline of alchemy has been fixed firmly and surely in a man, assign the ascendent and its lord to the querent, and the seventh with its lord to the man about whom the question is asked. For the ninth sign from the seventh one shows his knowledge. (See) whether it is fortunate or corrupt, East or West, or cadent, in a cardine or withdrawing from a cardine, whether too they aspect the lord of the seventh. For if they aspect the lord of the seventh and they themselves are fortunate, they indicate that he is skilled (peritum), especially in trine or sextile (aspect), while their application does not lack reception. But (an aspect) from quartile or from opposition bears witness to the fact that he has acquired this (art) with difficulty and after many inconveniences of labour—that is, if the aspect of benefics is not absent. For if the malefics aspect, even if he has studied with difficulty, his efforts have been without effect.

Hugo’s translation could be roughly contemporary with the date associated with the earliest Latin alchemical text—the Liber Morieni translated by Robert of Chester in 1144. What is interesting is that the writer of the Liber Morieni presents ‘alchemia’ as a term
unfamiliar to its Latin audience, and gives it a definition which would be more appropriate to the Philosopher's Stone:

Since you Latins have not yet understood what *alchymia* is, I shall enlighten you in the present work . . . Hermes the philosopher and others who came after him, defined the word in such a way: *alchymia* is a corporeal substance composed from the One and through the One, joining the most precious things together through relationship and effect, and naturally converting the same things by a natural commixture and by the best artifices (*ingenia*).13

Hugo, on the other hand, uses *alkimia* in the more ordinary and proper sense, and gives no indication that his audience might not understand the meaning of the term. We may presume that alchemical techniques were practised in Western Europe before Arabic texts on alchemy were translated into Latin. Robert Halleux and Paul Meyvaert have recently shown that an artisan's textbook which included alchemical recipes from Greek sources circulated in the early Middle Ages; this is the *Mappae clavicula*.14 However, the *Mappae clavicula* does not use the term *χυμετα* or its cognates and there is no datable evidence of its use in Latin before the *Liber Moriemi* and, now, Hugo's translation of 'Umar's *k. al-masā'il*. Hugo was otherwise familiar with Arabic alchemy, for he was also responsible for making the earliest translation of the *Tabula smaragdina* of Hermes Trismegistus. This mysterious text was regarded as the key to alchemical esoterism and is the culmination of the Hermetic revelation in Pseudo-Apollonius's *Secrets of Nature* which Hugo translated from Arabic.15

These references to alchemy are not the only ones found in Arabic and Latin astrological texts. For Sahl ibn Bishr, who was active in Marw and Baghdād in the first half of the ninth century,16 gives alchemy as a topic in two of his works. In his own book on interrogations we read the following:17

And if you are asked about a work (*bab*) of alchemy (*kīmiyā*), whether it is true (*haqq*) or false (*bāṭīl*), then look at the lord of the ascendent and the Moon, and if they are free from the malefics, then it is a true being (*kāfin al-haqiqun*). And if they are malefics, then it is false. And if it is gold, then use the testimony of the Sun, and if it is silver, then the Moon.

The question is the same as that in 'Umar's text, but the observations are simpler. In addition, Sahl specifically mentions the making of gold and silver, leaving one in no doubt that traditional alchemy is the subject.

In Sahl's work on catachistic astrology (i.e., about choosing the time that the stars indicate to be most appropriate for commencing an activity)20 it is the alchemist himself who is asking the astrologer about the right time to initiate the Work.21

And if you want to deal with alchemy ('*ilāj al-kīmiyā*22) and to practise something you want to do repeatedly, then let this be done when the Moon is in two-bodied signs, free from malefics, and let the ascendent be in such a position, and fix it. If the dealing ('*ilāj*) is in gold, then the Sun should be strong, and fix it at the beginning of this.

This appears in a slightly different form in a *maghribī* manuscript of the text, which gives:23

And if you want to practise alchemy ('*amal al-kīmiyā*24) and deal with it ('*ilājahā*25), and what returns into the hands of the man practicing (alchemy) many times, then
let this be done when the Moon is in a (two)-bodied sign, pure from malefics, and let the ascendent be in such a position, and fix it. And if the dealing ('ilâj) is in gold, then from the Sun, and fix it at the beginning of your (task).

Both these texts of Sahl were translated into Latin in Spain in the twelfth century. The first appears in the same Liber trium iudicum as 'Umar's book on interrogations, and is in the terse style distinctive of Hugo's associate Hermann of Carinthia, though no translator's name appears at the beginning of the text, which is headed “Liber Zahel de iudiciis .lvi. capitulis distinctus” (“The book of Sahl concerning judgements, divided into 56 chapters”):

Sahl, On alchemy.
When investigating the truth concerning alchemy we consult the lord of the ascendent and the Moon, which, if they are pure and free from the malefics, are an indication of the truth (of the alchemy). If they are corrupted, the opposite. Therefore if it concerns gold, we accept the Sun as testimony; if silver, the Moon.26

In the larger collection of works of judicial astrology called the Liber novem iudicum the phraseology sounds more like that of Hugo:

Sahl, On alchemy.
If anyone should presume to profess the knowledge of alchemy, and if you wish to discern whether a true discipline of this kind is obtainable at his hands, you will have a dependable indication of such an important matter from the lord of the ascendent and the Moon. For if both are pure and free from the malefics, it testifies that it is true and not without benefit. The corruption of these insinuates that he is false and lying. And if it is concerning gold, the testimonies of the Sun should be sought; for silver we consult the Moon.27

The reverential language of the latter passage would seem to indicate that the translator or reviser holds the practise of alchemy in high respect, were it not typical of Hugo's high-flown style.

The Latin translation of Sahl's book on catarchic astrology is called De electionibus and is by an anonymous translator, different from Hermann and Hugo:

And if you wish to practise alchemy or any work that you wish to keep repeating, let this be done when the Moon is in bicorporeal signs, free from malefics, and let the ascendent be similarly (placed). Then fix it. And if your work is in gold, strengthen the Sun and fix it at the beginning of the work.28

From these translations of Arabic texts derive later Latin astrological works which mention alchemy. For example Leopold of Austria's Compilacio de scientia astrorum (late thirteenth century) clearly derives from the Liber novem iudicum version of Sahl's book on interrogations,29 whilst Roger of Hereford's Liber de quatuor partibus astronomie (late twelfth century) quotes Sahl's De electionibus verbatim.30 But we may end with a verbose late thirteenth-century text on judicial astrology which is probably the Consilia of Bartholomew of Parma.31 This pads out Sahl's skimpy passage on assaying the alchemist, and applies the method to any practical experiment:
The question of whether any experiment is true or false:  
If one is asked of any experiment in the art of necromancy, medicine or alchemy, whether it is true or not, look at the ascendent and its lord and the Moon for the querent, (and) the eighth and tenth for the experiment, writing or instruction to be made (?). For if each planet is well positioned in a cardine or nearly—e.g. in a succedent near to the cardine—and free from malefics, while being joined to a benefic with a good aspect, and stays for a long time in such a position and is improving its situation and not making it worse by the removal of a good position or because it is soon joining the malefics which always and everywhere signify evil and destroy the good, this is a sign that the experiment is true and hence gain can follow; and vice versa. And one should know that the Sun gives a testimony concerning gold and everything of great value, but the Moon concerning silver and everything of small and medium value.\(^\text{32}\)

**Notes and References**


التاسع والسبعون في معرفة امر الكيمياء

إذا اردت ا أن تعلم عند جهل يعلم علم الكيمياء، ا لا فاجع الطالع وريه للسائل والسابع

وربي للمسئول عنه وبيت علم الرجل التاسع من البرج الساعي فانظر ام سعود هو ام منحوس

مشرق هو ام غرب ساقط هو ام في وتد ام زابل عن الوريد وهل بناظر صاحب الساعي فان كان

بناظره وكان سعودا دل على ان في يده علمه صحيحا ولا سيما ان كان النظر من تثليث او

تسبيس وكان بينهما اتصال وقلب فان كان النظر من تربعت او مقابلة دل على ان في يده شبا

قية وانه يدركه بطلب وتماع ونصب وذاك اذا كانت السعودية ناظرة فان كانت النحوس ناظرة

ديل على انه تعب فيه ولم يدرك منه شيا

5. Note however that Abu Ma’shar asserts that he translated "books of the Greeks, the Syrians, the Persians and the Babylonians" (see Sezgin, *op. cit.* [2], p. 111), and certain manuscripts call the questions "qaysarānī" (i.e., Byzantine ?).


11. Ibid. fol. 119r-v: “Aomar, De alkimia: Alkimie vero disciplina[m] utrum apud quempiam firma atque certa constiterit habita questione, orien eiusque dominum querenti, septime cum eius domino et de quo ambitigatur, constitue. Nonum enim signum a septimo eius demonstrat scientiam. Felix pocius sit an corruptum, orientale sive occidentale, vel cadens, in cardine quidem vel a cardine redactus, utrum etiam septimi dominum respiciat. Si iigitur septimi dominum respiciat et ipsi fortunati, peritum annunt, de trigono precipue aut exagono, dum eorum applicatio recipere non carent. De tetragono autem aut opposicione, difficulter et post multa laboris incommoda hoc assecutum fuisse testatur—si inquam fortunaturnon absit respectus. Nam si infortunia (sinfortunia MS) respiciant, et si cum difficultate studueris, labor cessit ineflicax.”


17. Sahl’s book on interrogations is part of a work which goes under various titles, including Nawādir al-qādir (Sezgin, op. cit. [2], pp. 125–6). I have used MS Escorial 919, fol. 34r.

وكان سئلت عن باب كيمياء أحق هو ام باب فائز الالي صاحب الطالع والقمر فان سلما من النحوس فامره كان حا هان نحا فالامر بابلا فان كان ذهبا فاستشهد الشمس وان كان فضية فالقمر

18. Literally: “door” or “chapter”.

19. Literally: “a truth”.

20. This work has been edited with its medieval Latin translation and translated into English by C. M. Crofts, “Kitab al-sihyarat ‘ali il-bayad al-iqna ‘ayat” by Sahl ibn Bishr al-Isra’i’li with its Latin Translation De Electionibus,” Ph.D dissertation, Glasgow University, 1985. I am very grateful to Carol Crofts for allowing me to see a copy of this thesis.


وان أردت علاج الكيمياء عملا أردت معاونته فليكن ذلك والقمر في برج ذوات حسب مدن نفي من النحوس وليكن الطالع كذلك وأصلحه ان كان العلاج في الذهب فغوي الشمس واصلها عند ابدا ذلك

22. Literally: “the curing of alchemy”.

وكان سئلت عن باب كيمياء أحق هو ام باب فائز الالي صاحب الطالع والقمر فان سلما من النحوس فامره كان حا هان نحا فالامر بابلا فان كان ذهبا فاستشهد الشمس وان كان فضية فالقمر

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22. Literally: “the curing of alchemy”.

وكان سئلت عن باب كيمياء احق هو ام باب فائز الالي صاحب الطالع والقمر فان سلما من النحوس فامره كان حا هان نحا فالامر بابلا فان كان ذهبا فاستشهد الشمس وان كان فضية فالقمر

20. This work has been edited with its medieval Latin translation and translated into English by C. M. Crofts, “Kitab al-sihyarat ‘ali il-bayad al-iqna ‘ayat” by Sahl ibn Bishr al-Isra’i’li with its Latin Translation De Electionibus,” Ph.D dissertation, Glasgow University, 1985. I am very grateful to Carol Crofts for allowing me to see a copy of this thesis.


وان أردت عمل الكيمياء وعلاجها وما يعود إلى يد صانعه مراراً فليكون ذلك والفر في المجيدة نفياً من النحس وليكن الطالع كذلك واصبحه وإن كان العلاج في الذهب فنمن الشمس واصبحه عند ابتدائك

24. Literally: “the work of alchemy”.

25. Literally: “its curing”.


27. MS Vienna, Osterreichische Nationalbibliothek, 2428, fol. 130r: “Zahel, De alkimia: Scientiam alkimie, si quis presumat confiteri vole[n]sque discernere utrum aput ipsum vera huiusmodi habeatur disciplina, ab orientis domino et luna certum tante rei habes indicium. Si enim uterque infortuniis mundus et liber extiterit, verum esse non sine emolumento testatur. Horum corrupcio, falsum insinuat et mendacem. Que si de auro fuerit, solis testimonia requirenda, pro argento quidem, lunam consulimus.”


29. MS Vatican City, Biblioteca apostolica, Vat. Pal.lat. 1334, fol. 224v: “De alchimia utrum quis sciat per orientis dominum. Si enim mundi sint ab infortuniis, ipse scit, horum corrupcio mendacem significat, et pro auro fortunetur sol, pro argento lunam.”


32. MS Kues, Bibliothek des Hospitals, 209, fol. 22v: “Questio pro aliquo experimento utrum sit verum vel falsum: Si queratur de aliquo experimento artis nigromantie vel medicine vel alchimie utrum sit verum vel non, vide ascendentem et dominum eius ac Lunam pro querente, octavum et decimum pro experimento, scripto et ordinato fieri. Si enim uterque planeta fuerit bene dispositus in angulo vel quasi ut in succedente prope angulum liberque a malis cui fortuna iungatur aliquo bono aspectu diu stans in tali dispositione et meliorans condicionem, et non peorando per separacionem bone dispositionis vel quod cito iungeretur malis que semper et ubique significant malum et bonum destruit, signum est quod experimentum est verum et inde potest consequit profectus et contrario. Et est scientiam quod Sol reddit testimonium de auro et de omni re magni valoris, Luna vero de argento et de omni re parvi et mediocris valoris.”
AN APOCRYPHAL LETTER FROM THE ARABIC PHILOSOPHER
AL-KINDI TO THEODORE, FREDERICK II'S ASTROLOGER,
CONCERNING GOG AND MAGOG, THE ENCLOSED NATIONS,
AND THE SCOURGE OF THE MONGOLS

Immediately following John of Plano Carpini's History of the Mongols in MS 512 of
the Österreichische Nationalbibliothek in Vienna, and inserted among the letters of
the papal legate Albert of Beham in Clm. 2574b of the Bayerische Staatsbibliothek
in Munich, is a letter in which an Arabic philosopher is apparently warning a Christi­
an king of the impending Mongol invasion. This letter, which I shall refer to, from
its incipit, as Epistola Prudenti viro, was signaled by Sudhoff in 1915,1 but has re­
mained unstudied and unedited. It merits attention, however, as a footnote to the
study of the impact on European consciousness of the personality of Frederick II Ho­
henstaufen and the threat of the Mongols,2 and also as a further document in the field
of the Alexander Romance.3

The letter is purportedly addressed by "al-Kindi, the priest and philosopher of the
caliph of Baghdad," to "Theodore, the philosopher of the most invincible emperor."4
The author begins by saying how he discovered in his travels many books of prophecy,
from which he has excerpted the most relevant facts in this letter. These show how

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sending very full and useful information on the Marburg manuscript of Epistola Prudenti viro. I am also
pleased to acknowledge the help given by Professor Richard Rouse, University of California, Los An­
geles.

1 K. Sudhoff, "Ein diätetischer Brief an Kaiser Friedrich II von seinem Hofphilosophen Magister
Theodorus," Archiv für Geschichte der Medizin 9 (1915) 1–9; see 8–9. Sudhoff prints the first few sen­
tences of the letter, from Marburg, Universitätsbibliothek MS 9.

2 The letter is not mentioned in the standard biographies of Frederick II or in G. A. Bezzola, Die
Mongolen in abendländischer Sicht (1220–1270) (Bern 1974).

3 The valuable survey of the ramifications of the Alexander Romance by D. J. A. Ross, Alexander
Historiatus (London 1963), does not include this letter.

4 An edition of the letter follows this article.

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Alexander the Great, with the help of God, enclosed Gog and Magog and the twenty-two nations who make up the Tartar (or Mongol) peoples, between two mountains and shut them behind the Caspian Gates. A circumstantial account is given of the characteristics of each of these nations, their kings, and, on occasion, the beasts that dwell among them. Now, according to the predictions, the time of the fulfilment of the prophecy that Gog and Magog will escape, has arrived. A most wicked fox has burrowed into the mountainside and has shown the enclosed nations a means of breaking through the Gates. Even now these ruthless people, in three armored divisions, are beginning to maraud over the face of the earth. God has condoned this invasion as a punishment for the iniquities of his people.

From a literary point of view most of the elements in this letter are familiar. There is clearly nothing Arabic about its contents. The story of Alexander and the Enclosed Nations is told in most versions of the Alexander Romance and was taken up in the extremely influential seventh-century Apocalypse of the ps.-Methodius. Here we read how Alexander, with the help of God, enclosed the descendants of Japheth between two mountains called "the Breasts of the North," behind gates made of "absinth," which could in no way be opened. But at the last day, says the ps.-Methodius, quoting Revelation, Gog and Magog will escape into the land of Israel and bring the world to an end. The ps.-Methodius merely lists the twenty-two (twenty-three) kings (including Gog and Magog) who descended from Japheth. The Epistola Prudenti viro takes the description of the races ruled by these kings and the beasts that dwell among them from another source—namely, the accounts of marvelous races and strange beasts which can be found in Pliny, Solinus, Augustine, and Isidore. These accounts, too, had become incorporated and were elaborated in several versions of the Alexander Romance, in which we read how Alexander encountered the mythical creatures in his journeys in the East. The inventive in the Epistola against the

1Tartari was the usual term for the Mongols used in the West in the Middle Ages; cf. Simon of St. Quentin, Historia Tartarorum: "Ipsi quoque Tartari proprii loquendo se vocant Mongli sive Mongol" (cited by P. Meyvaert in "An Unknown Letter of Hulagu, Il-Khan of Persia, to King Louis IX of France," Viator 11 (1980) 245-259; see 253 n. 41).

2Ross (n. 3 above) 34-35.


4Rev. 20.8; see also Ezekiel 38-39.

5The ps.-Methodius gives a list of twenty-three names (including Gog and Magog), but describes them as viginti duo reges (see table below).


7Ross (n. 3 above) 32-33.
impiety of Christians also is not particularly original, and is reminiscent of the tone adopted by the Archpoet and other satirical writers in the twelfth century.

The interest of this letter lies in its application of these traditional literary elements to a specific historical situation. As is well known, the Mongols, with extraordinary rapidity during the first three decades of the thirteenth century, had forced into submission or laid waste the whole of Central Asia from the Yellow Sea to the Black Sea, and by 1240 were posing a threat to Muslims and Christians equally. Some Christians were encouraged by the reports that among the Mongols there were Nestorian Christians, including the Prester John who had promised to rescue Christendom from Islam. But they were soon disillusioned by the merciless treatment meted out by the invaders to Hungary and Southern Poland in 1241. The Arabs fared no better, and the ʿAbbasid caliphate in Baghdad finally came to an end with the Mongol capture of Baghdad in 1258. Only in 1260, when the Mamlūq army of Egypt defeated a battalion of the Mongols at ʿAin Jālūt, was the tide of advance stemmed, and Europe and the Arabic world could breathe freely again.

Many of the literary sources used in the Epistola Prudenti viro are echoed in chronicles of the time. Popular etymology derived the name Mongoli from Magogoli ("descendants of Magog"), and Roger Bacon does not hesitate to identify the Mongol invasion as the fulfilment of the prophecy concerning the escape of Gog and Magog from behind the Caspian Gates:

Aethicus the philosopher in his Cosmography expressly says that the race shut up within the Caspian Gates will rush out into the world, meet the Antichrist and call him "God of gods." Without doubt, the Tartars were within these gates, and issued forth. We know for certain that the Gates are already broken, for Franciscans whom Louis, the present king of France, sent forth, passed through the midst of these Gates and went far on into the mountains along with the Tartars who had been shut up there.

There were rumors, too, that the Mongols actually had "dog-faces," and were thus identifiable with at least one of the fabulous races listed in the Epistola. Finally, Matthew Paris corroborates that the Mongols were regarded as the scourge of the Lord for the sins of Christian people.

13 Chambers 104, citing Ricoldo of Monte Croce.
15 See Chambers (n. 12 above) 104, citing Ivo of Narbons.
16 See Davide Bigalli, 1 Tartari e l'Apocalisse (Florence 1971) 24, citing Matthew Paris, Chronica maionis 6.78: "Credimus ipsos esse gladium furoris Domini propter peccata populi Christiani."
But was the *Epistola Prudenti viro* a mere academic exercise inspired by the contemporary atmosphere, or was it circulated and passed off as a genuine letter, and with a political purpose? Here the superscript might give a clue. The attribution to al-Kindi is patently false, in that Ja'qub ibn Ishq al-Kindi died soon after A.D. 870. To Europeans, however, al-Kindi would have been one of the most familiar Arabic names, if not the best known, for there are some thirty works in Latin, mostly translated or composed in the twelfth century, attributed to al-Kindi. In that he is described by one twelfth-century Latin writer as “the most reliable and true judge amongst astrologers,” he must have had a reputation for being an accurate judge and predictor of political events. Indeed, we do have a genuine work of al-Kindi forecasting the end of the rule of the Arabs. In this short text the author counts up the numerical equivalents of the nonrepeating letters standing at the beginning of certain *sûras* of the Koran and discovers that their sum—693—corresponds with the length of the rule of the Arabs as predicted by astrological calculations. This genuine letter was known in the West through being incorporated in the astrological work *De magnis coniunctionibus* (“About Great [astrological] Conjunctions”) by Abû Ma'shar (Albumasar). Roger Bacon, referring to Abû Ma'shar's text, compares the figure 693 with the “number of the Beast” in Revelation (= 666 years). In fact, al-Kindi’s predictions were only thirty-six years off the mark when the Mongols sacked Baghdad in 1258. It is possible, too, that this genuine letter of al-Kindi was the same as the Arabic prophecy which came to light during the siege of Damietta in 1221, when the Christians seemed on the point of crushing the infidels. This letter was de-


21 Abû Ma’shar, *De magnis coniunctionibus*, translated by John of Seville, is found in several manuscripts, including Paris BN lat. 16204, pp. 183–302, and was printed by Erhard Rardolt (Augsburg 1489); see D. Pingree, “Abû Ma’shar,” in *Dictionary of Scientific Biography* 1, ed. C. C. Gillispie (New York 1970) 36. For the history of astrological predictions of political and religious “revolutions” (this very word betrays its astrological origins), for which al-Kindi and Abû Ma’shar were the principal authorities in the West, see John D. North, “Astrology and the Fortunes of Churches,” *Centaurus* 24 (1980) 181–211. Al-Kindi’s letter is also summarized in a magical work known in Arabic, Spanish (fragment), and Latin—*Picatrix* (ed. H. Ritter, *Pseudo-Magriti: Das Ziel der Weisen* [Leipzig 1933] 176; German translation, H. Ritter and M. Plessner, *Picatrix* [London 1962] 184).

22 Bacon, ed. Bridges (n. 14 above) 1.266; see Bigalli (n. 16 above) 186, and McGinn (n. 14 above) 155.
scribed by Jacques de Vitry as written by "a certain astrologer whom the Saracens regard as a great prophet." In any case al-Kindi's reputation would have been sufficient to give credence to the reliability of the warning in the *Epistola Prudenti viro*.

The recipient of the letter, on the contrary, is a person who might well have been alive when the letter was written. He may be identified with Theodore of Antioch, who appears to have succeeded Michael Scot as court astrologer to Frederick II Hohenstaufen, at Palermo in 1238, who cast a horoscope for the emperor at the siege of Padua in 1239, and who died in (or just before) 1250. Perhaps a Jacobite Christian himself, he is said to have studied at Mosul and Baghdad, and was enough of an Arabist to have been dispatched by the emperor on diplomatic missions to Arabic rulers. He translated a work on falconry which was revised by his imperial patron, and he wrote a short work on diet, which is found with the *Epistola Prudenti viro* in a fourteenth-century manuscript.

There is also a striking similarity between the superscript of our letter and that of another work allegedly sent from an Arabic potentate to Palermo, and involving Theodore. In a fourteenth-century manuscript of Italian provenance we find on the first folio a work introduced as "The book of the Nine Judges, which the Sultan of Babilonia sent to the Emperor Frederick at the same time as the Great Caliph sent Master Theodore to the same Emperor Frederick." This *Liber novem iudicum* is, in fact, a Latin compilation of nine astrological works translated from Arabic, at least three of which were translated separately in Northern Spain towards the middle of the twelfth century. It was used by Frederick II's astrologer Michael Scot in his compendium *Liber introductorius*. Moreover, it is occasionally ascribed to al-Kindi, in that the first chapter is taken from a genuine work by al-Kindi on the Judgments of the Stars.

Like the protocol of the *Epistola Prudenti viro*, that of the *Liber novem iudicum* has been contrived to suggest that a work of astrology was sent from an Arabic court to...

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23 "Quidam astrologus quern prophetam magnum Sarracenis reputant"; cited by Bigalli (n. 16 above) 188. For the various prophecies that were current at the siege of Damietta see Bezzola (n. 2 above) 13–20.

24 See Haskins (n. 19 above) 246–248.

25 This is the letter beginning *Celitudo vestra*, edited by Sudhoff (n. 1 above).

26 "Liber novem iudicum quem missit Soldanus Babilonie Imperatori Federico tempore quo et magnus Chalif missit magistrum Theodorum eidem Imperatori Federico"; London, BL Royal 12 G.VIII, fol. 1. See Catalogue of Western MSS in the Old Royal and King's Collections, G. F. Warner and J. P. Gilson (London 1921) 2.72, and Haskins (n. 19 above) 246. The Sultan of "Babilonia" is presumably one of the sultans of Egypt (al-Kâmil, d. 1238, or al-Sâlih Ayûb, d. 1249) with whom Frederick had close relations; see E. Blochet, "Les relations diplomatiques des Hohenstaufen avec les Sultans d'Egypte," *Revue historique* 80 (1902) 51–64, but the "Chalif" would be the 'Abbasid religious leader in Baghdad.


28 E.g. Vienna, ONB 5517 (A.D. 1489): "Liber introductorius novem iudicum quem compilavit Alkindus." In lists of the nine judges at the head of most of the other manuscripts, al-Kindi's name appears first.
Frederick II. Moreover, if one is to believe that the caliph himself had sent Theodore to the Christian emperor, it is all the more plausible that Theodore should receive a letter from the caliph's philosopher. But the question remains as to the purpose of this fabrication. Had Frederick II anything to do with it?

Frederick's interest in Arabic learning and religion was notorious. He sent a questionnaire on geometry and algebra to al-Kamil, sultan of Egypt, and was moved by academic curiosity to visit the Islamic holy places and hear the muezzin in Jerusalem. His friendship with the sultans of Egypt and other Arabic rulers placed him under suspicion, and the fifth crusade was jeopardized by his dubious dealings with his Arabic counterparts. To the Mongols, however, Federick was consistently opposed. He took it upon himself to inaugurate a crusade against them which his son Conrad would lead. In a letter sent by the emperor to the monarchs of Europe in 1241 (just after the siege of Faenza, during which Theodore and the emperor were working on their translation of an Arabic work on falconry), he warns them of the danger of the Mongols and recommends concerted action in the form of a crusade. It is noticeable that the tone of the letter is similar to that of the Epistola Prudenti viro. The Tartars resemble beasts in their nature, just as they are described as monstrous beings in the Epistola. Moreover, they have been sent as the judgment of God to punish and correct his people.

Frederick's enemies in Europe received this letter with great skepticism. It was even thought by some, according to Matthew Paris, that the emperor had deliberately engineered the Mongol threat as a move in his plan to overthrow Christendom. His letter was a mere cover-up. Can we see, then, the Epistola Prudenti viro as a propaganda exercise written by a partisan of Frederick II and designed to give him credibility in his campaign against the Mongols? The letter would suggest that Frederick's warnings were not only supported by the prophecies of the ps.-Methodius and their derivatives, which were well known at a popular level of society, but were also

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29 The letter was reproduced in Matthew Paris, Chronica maiora 4, ed. Luard, Rolls Series (London 1877) 112-119.
30 "Haec enim gens est feralis et exlex, humanitatis ignara" (ibid. 115); "Egressa enim dudum ex ultimis mundi finibus . . . gens barbarae nationis et vitae . . . Tartari nuncupata, non absque praeviso Dei iudicio ad sui populi correctionem et correctionem" (ibid. 112).
31 "Fuerunt namque qui dicenter, imperatorem hanc Tartarorum pestem sponte fuisse machinatum, et per hanc elegantem epistolam sceclus tam neparium nequiter palliasse, et ad totius mundi monarchiam, in fidis Christianiæ subversionem, ad instar Luciferi vel Antichristi, hiato protervo conspirare" (ibid. 119). A further allusion to Frederick's having called in the Mongols is found in the Chronique rimée de Philippe Moukes évêque de Tournay au troisième siècle, ed. F. A. F. Thomas, baron de Reiffenberg, 2 (Brussels 1838) 681; lines 30959 and 30967–30970:

Des Tartares revint novièl . . .
Et fu par le monde retrait
Que l'eperèrères par son trait,
Pledéris, les ot fait venir
Pour crestienenté ahounir.

I owe this reference to Dr. P. Jackson of Keele University.
corroborated by the Arabs, who were noted for their skill in forecasting future events. Moreover, there is one detail so far not discussed which could support this hypothesis.

The letter tells how, when many kinds of beasts were shut up together with Gog and Magog and the twenty-two nations, the foxes were left outside. As we have seen, the most wicked of this race burrowed its way into the mountainside and became the agent whereby the enclosed nations were finally allowed to escape. In no other version of the story, as far as I know, is the fox (vulpes) or the clan of foxes mentioned. It is very tempting to imagine that, in the popular mind, the word vulpes would be associated with Guelf. The Guelfs were tireless enemies of Frederick II, who tended to side with the Ghibelline party in his campaign in the north of Italy. Moreover, both popes Gregory IX and Innocent IV supported the Guelf faction, and repeatedly excommunicated or threatened to depose the emperor. If Matthew Paris's chronicle implies that Frederick's enemies considered that the emperor had deliberately released the Mongols from behind the Caspian Gates to further his own ambitions, is it not possible that partisans of Frederick might have rejoined by trying to encourage the belief that a Guelf—or perhaps even the pope himself—had been responsible?

* * *

The manuscripts in which the Epistola Prudenti viro occurs corroborate that from an early date it was associated with Frederick II's circle. One copy came into the hands of one of Frederick's most bitter opponents. This was Albert of Beham who was a staunch ally of Pope Innocent IV. As papal legate he repeatedly tried to stir up the nobles and bishops of Bavaria against the emperor, and the antagonism he met from Frederick's supporters resulted in considerable turbulence in his career. Clm. 2574b, an unusually early paper manuscript, is the register of the letters he sent between 1241 and 1255, many of them written when he was with the pope in Lyons. Interspersed among the letters, and in the same hand (presumably that of Albert of Beham or his secretary), is an assortment of miscellaneous information which must reflect the interests of Albert at the time he was writing the letters. This includes not only his personal expenditure and income and his will, but also accounts of the value of the silver and gold mark, a list of bishoprics, a mnemonic for remembering the dates of church festivals, advice to princes (the ps.-Aristotelian Secretum secretorum), popular medical and astrological lore, and descriptions of marvels. On folios 84v–85v are four poems glorying over the defeat of Frederick at Parma in 1248. The em-


33 Unfortunately the proposed etymology does not find support in Robert Davidsohn's Forschungen zur Geschichte von Florenz (Berlin 1908) 30–32. Here, however, only favorable etymologies of the name are given (Guelfi = guerra leonum fortis or gero fudem).

34 See Van Cleeve (n. 32 above) 435–436.

35 The letters are published in C. Höfler, Albert von Beham und Regesten Pabst Innocenz IV, Bibliothek des Literarischen Vereins Stuttgart 16 (Stuttgart 1847) 51–158.
peror is portrayed as an ally of astrologers, demons, and the magical arts. A few folios before these poems there occurs the Epistola Prudenti viro. Albert was probably struck by the apparent connection of the letter with the astrologer al-Kindi, which was a further proof of Frederick’s involvement in the occult and the magical.

The occurrence of the Epistola Prudenti viro among Albert’s correspondence also gives some idea of when the letter was circulating, for it directly precedes the letters of 1246, which, in turn, are followed by the poems on the victory at Parma in 1248.

In Marburg MS 9, as we have seen, the letter is followed by a treatise on diet written by Theodore himself and addressed to Frederick II. A document in the same manuscript describes a medicine made up for Pope Gregory; and another work, giving rules for preserving one’s health on crusade in the Holy Land, is addressed once again to Frederick II (this work apparently occurs in no other manuscript). Two translations of ps. - Aristotelian works commissioned by Frederick II’s son Manfred are also in the Marburg manuscript, while Innocent IV, Gregory IX’s successor, is the recipient of a medical work in Paris BN lat. 6978, which also includes our letter.

There can be no doubt, therefore, that the Epistola Prudenti viro was associated with works from either the imperial court or the papal court of Gregory IX and Innocent IV. Moreover, all three manuscripts so far discussed contain a similar range of texts. They all include the same recension of Philip of Tripoli’s translation of the Secretum secretorum—the farrago of information on rulership, hygiene, astrology and physiognomy allegedly addressed by Aristotle to his imperial pupil Alexander the Great. Albert of Beham’s manuscript would be a very early witness to the translation, and, if the translator Philip is identified, as Haskins thinks probable, with the Philip mentioned in several documents as, variously, a canon, a prebendary, and a precentor of Tripoli between 1227 and 1259, then his arrested presence with the pope in Lyons

\[\text{Artes et auguria cessant Friderici} \\
\text{Sibi nolunt obsequi daemones amici (p. 126).} \\
\text{Amisit astrologos et magos et vates,} \\
\text{Beelzebub et Asharoth, privatos penates,} \\
\text{Tenebrarum consulens per quos porestares} \\
\text{Spreverat ecclesiam et mundi magnates (p. 128).} \]

\[\text{36 Cf. ibid.:} \]

\[\text{37 See description of manuscript (fol. 107v) below. The author of this work, Adam of Cremona, is apparently the subdean and precentor of the Cathedral of Cremona mentioned in the necrology as having died on 3 Nov. (year not given); see F. Novati, ”L’Obituario della Cattedrale di Cremona,” Archivio storico lombardo, ser. 1.8 (1881) 497 (cited in R. Haussherr, Die Zeit der Staufer: Katalog der Ausstellung I (Stuttgart 1977) 651).} \]

\[\text{38 See F. Wurms, ”Studien zu den deutschen und den lateinischen Prosafassungen des pseudo-aristotelischen Secretum secretorum,” Ph.D. diss. (Hamburg 1970). All the manuscripts of the Epistola Prudenti viro give the Secretum secretorum in Wurms version I.1 (i.e., full version with the physiognomy at the end).} \]

\[\text{39 Haskins (n. 19 above) 137–140.} \]
in 1247 at the same time as Albert might explain why his translation was copied out into Albert's letter-register. 40

The same hexameters on what to do and to avoid doing when the moon is in each of the signs of the Zodiac appear in the Marburg and the Paris manuscripts, 41 while Albert of Beham gives a prose version of the same precepts. 42 All three manuscripts give recipes for pills, and the Munich manuscript includes advice, purportedly addressed to Alexander the Great, on the astrologically propitious time to take the medicine.

The fourth manuscript which includes the Epistola Prudenti viro—that of the National Library in Vienna—also gives the same version of the Secretum secretorum as the other three manuscripts, but this time the letter concerning the scourge of the Mongols is attached to the historical account of the Mongols by the Franciscan missionary, John of Plano Carpini.

APPENDIX:

An edition of the Epistola Prudenti viro

The Manuscripts

In the following descriptions, attention is drawn particularly to the connections of the contents of the manuscripts with the Sicilian court of Frederick II and his son Manfred, and with the legend of Alexander the Great which was prevalent at that court. The astrological items are also described in detail.

C Munich, Bayerische Staatsbibliothek Clm. 2574b, s.xiii, paper. This manuscript is the register of the letters of Albert of Beham, edited in full by Höfler (n. 35 above), and interspersed with other items including the following:

1. fol. 36v, (about the date of the excommunication of Frederick II and Eberhard, bishop of Salzburg)
2. fol. 42v, Secretum secretorum editus ab Aristotele ad Alexandrum (ed. R. Steele in Opera hactenus inedita Rogeri Baconi 5 (Oxford 1920))

40 The earliest clear use made of Philip of Tripoli's translation of the Secretum secretorum is Roger Bacon's commentary to that translation, written some time between 1243 and 1254 (see Haskins [n. 19 above] 138).
41 Marburg MS 9, fol. 92 = Paris BN MS lat. 6978, fol. 1v.
42 The precepts in this lunarium are very commonly found; for the context see C. Weisser, "Des Krankheitslunar aus medizinhistorischer Sicht," Sudhoff's Archiv 65 (1981) 390–400.
3. (Astrological notes) fol. 72, Cum luna est in Ariete bonum est minuere sanguinem de brachio (lunarum also occurring in Vienna, ÖNB 407 and Paris, BN lat. 7416B (see Thorndike and Kibre [n. 18 above] 314)); fol. 72v, Quacumque hora nascitur quis eadem naturaliter debet mori (a heading to a rota of the planets, signs of the Zodiac, compass directions and qualities, reproduced in W. Hübner, Die Eigenschaften der Tierkreiszeichen in der Antike (Wiesbaden 1982) 444); fol. 73, Cum volueris invenire signum tuum computa nomen tuum et nomen matris; fol. 73, Si scire volueris quis prius moriatur (the last three items are related to the "spheres of Apuleius or Pythagoras" discussed by E. Wickersheimer, "Figures medico-astrologiques des IXe, Xe et XIe siècles," Janus 19 (1914) 1-21); fol. 73, Leo, Sagittarius, Aries arescut / Sunt orientalia et semper calescunt (verses, also in Vatican, Urb. lat. 505 and Paris, BN lat. 6584; Thorndike and Kibre 816)

4. fol. 73v, (Epistola Prudenti viro)

5. (Astrological notes) fol. 75v, Fortuna Arietis est in militia et in servicio aliorum, in hospitalitatis, et in taberna et in macello (also in Vienna, ÖNB 407 and Munich, Clm. 615; Thorndike and Kibre 568); fol. 76, Qui est de Venere et Pisce, peribit de aqua.

6. fol. 90, (recipes for pills) Sumatur cum adiutorio dei de aqua palmarum; fol. 91, Cave tibi, O Alexander, ne asumas medicinam vel venam aperiás nisi de licentia scientie astrorum ... ; fol. 91, Cum volueris recipere medicinam laxativam, consistat luna in Scorpione vel in Libra vel in Pisce ... .

7. fol. 91v, Cisioianus (a mnemonic for remembering the dates of church festivals, ed. Höfler xxiv)

8. fol. 98v, (money spent and received by Albert of Beham)

9. fol. 100, (the value of the gold and silver mark)

10. fol. 111v, (about various translators)

11. fol. 121v, (the beginning of the Apocalypse of ps.-Methodius, deleted) Incipiant dicta Methodi episcopi Paternensis de regnis et regum et gentium et de novissimis temporibus certa demonstratio Christi.

12. fol. 134, (excerpt from Geoffrey of Monmouth, Historia regum Britanniae)

Bibliography: Catalogus codicum latinorum Bibliothecae regiae Monacensis editio altera 1.1 (Munich 1892) 10-12.
APOCRYPHAL LETTER FROM AL-KINDI

Bibliography: *Tabulae codicum manu scriptorum . . . in bibliotheca Palatina Vindobonensi asservatorum* 1 (Vienna 1864) 86.

P Paris, Bibliothèque Nationale lat. 6978, s.xiv, velum.

The main texts are all in the same hand. Notes have been added in margins and between texts, in Latin and French in later hands.

1. fol. 1, Versus quatuor complexionum: Sanguineus: Natura pingues isti sunt atque iocantes (verses from the *Regimen sanitatis salernitanum*, ed. Salvatore de Renzi, 5 (Naples 1859) 40)

2. fol. 1, (recipes for pills in French) pillules confortatives; pillules confortatives et laxatives; poudre laxative; medicine potable.

3. fol. 1v, Hec sunt xii. signa celi et effectus eorum dum luna transit per ea: Aries: Nil capiti facias Aries cum luna refugiet (verses from the *Regimen sanitatis salernitanum*, ibid. 53)

4. fol. 2, Incipit liber de conservanda sanitate a magistro Johanne de Tholeto: Scribitur ab Ysaac in libro viatici . . . et hec nobis de predictis sufficiant (Thorndike and Kibre 1413)

5. fol. 8, Ad omne vicium occulorum collirium.

6. fol. 9, Incipit regimen num sanitaatis a magistro Arnaldo de Villanova (ed. *Opera omnia* (1504) fols. 79–84v): Prima pars vel consideratio . . . quantum poterit intromittatur.

7. fol. 22, Incipit epistula de accidentibus senecrutis missa ad Innocentium Quartum quondam summum pontificem (an *abbreviatio* of Roger Bacon, *De retardandis senectutis accidentibus*; Thorndike and Kibre 463): Domine mundi qui ex nobili . . . ideo ad huius rei supplementum vestre clemencia et altitudini epistolam composui supradictam. (fol. 36r–v blank, except for some late pen-trials)

8. fol. 37, (ps.-Aristotle, *Secretum secretorum*)

9. fol. 62v, (Epistola Prudenti vuro)


M Marburg, Universitätsbibliothek 9. Two manuscripts bound together. The second (fols. 64–166) is of the fourteenth or fifteenth century, and is paper.

1. fol. 65, (ps.-Aristotle, *Secretum secretorum*)

2. fol. 87v, (Epistola Prudenti viro)

3. (Astrological notes) fol. 88v, Nota quod duodecim sunt signa, primum dicitur Aries . . . ; (lacuna in MS; fol. 89, the end of a devotional work); fol. 89v, In vere omnia innovantur . . . (also in London, British Library Arundel 251 and Munich Clm. 13076; Thorndike and Kibre 720); fol. 92, Aries: Nil capiti facias Aries cum Luna refugiet (see above, P, fol. 1v); fol. 92v, Signum Arietis quod (m)artius bonum est viam proficisci . . . ; fol. 94, Signum Marci signum Arietis est. Puer qui natus fuerit . . . . (work breaks off; lacuna in MS)
4. fol. 95, (ps.-Aristotle), De porno, (translated by, or on the initiative of, Manfred, son of Frederick II): Cum clausa esset via veritatis . . . (for edition see Thorndike and Kibre 286)
7. fol. 107v, Pillule mirabilis operationis quas composuit frater Albertus Theotonichus (Albertus Magnus) pro papa Gregorio.
10. fol. 137v, (astrology, in German)
12. fol. 147, (ps.-Aristotle, Phisionomia), translated by Bartholomaeus of Messina on the command of Manfred, son of Frederick II; ed. Förster, Scriptores physiognomonici 1.5–91): Quoniam autem et anime sequuncur corpora et ipse secundum seipas . . .
13. fol. 152, Aristotle, De bona fortuna: Habiturum autem . . . (translated by Bartholomaeus of Messina, under the emperor Manfred; see A. Birkenmajer, "Classement des ouvrages attribués à Aristote," repr. in Studia copernicana 1 (Breslau 1970) 60, and G. Lacombe, Aristoteles latinus 1 (Rome 1939) 72–73)
14. fol. 153v, (Gundissalinus) De unitate et uno (ed. P. Correns, Beiträge zur Geschichte der Philosophie des Mittelalters 1 (Münster 1891)): Unitas est qua una-quaeque res dicitur una . . .
15. fol. 154v, Libellus de Secundo phylosopho: Fertur quod Secundus physosophus fuit homo phylosophatus Athenis . . . et intitulari (Differences from the text edited by A. Hilka (Das Leben und die Sentenzen des Philosophen Secundus, 88. Jahresbericht der schlesischen Gesellschaft für vaterländische Cultur, Abt. 4 (Breslau 1910)) who does not refer to this MS in his list of Latin MSS on p. 6)
16. fol. 156, De mutuis epistolis Alexandri et Didimi regis Bracmanorum: Alex-
ander, ut legitur, cum ultimum litus Oceani . . . conversatio in celis est (An unidentified version of the dialogue between Alexander and the Brahman)


Critical edition of Epistola Prudenti viro

The following edition uses the earliest manuscript—Munich, Clm. 2574b (C)—as the base text. The orthography of C is kept, but manifest errors are corrected from other manuscripts, from which, too, the lacunae in C, caused by the rubbing away of the thirteenth-century paper, are filled. Full textual variants, including orthographic variants of the proper names, are given in the case of MSS Vienna, ÖNB 512 (V) and Paris, BN lat. 6978 (P). Variants from Marburg, UB 9 are given only for those first few sentences which Sudhoff transcribes (see n. 1 above). The various forms of the names of the twenty-four kings are separated from the main apparatus and compared in tabular form with those in the Apocalypse of the ps.-Methodius (edited by Sackur; see n. 7 above), and in the version of the Romance of Alexander known as Historia de preliis (ed. K. Steffens (Meisenheim 1975)).

Prudenti viro amico suo karissimo Theodoro invictissimi Cesaris filosofo, Alkindis Alcalif de Baldac sacerdos et philosophus, salutem in Omnipotence.

Nosse cupiens diversirares hominum et linguarum adcessi personaliter ad gentes ferocissimas quasi mercaror, inter quas inveni multos Latinos ab illis gentibus subiugatos, qui michi libros barbaros et Latinos de futuris mirabilibus ostendunt. De quibus excepit quendam que vidi et legi patentiaper effecrum, que in presenti pagina prudencie verscre transmittto.

Macedum rex Alexander devictis gentibus in partibus orientis, gentes aspectu terribiles, gustu fetidas, actibus abhorrendas, sibi pocius divina quam humana potencia subiugavit. Alexander enim pugnaturus cum eis, reperit multa genera preliandi; agroctanes in prelio prepondeant, ut milites Alex-
andri fessi, armis onerati, contra homines pugnare non possent. Quibus Alexander porcos dedit, ut cum hominibus preliari valeret. Inter alia vidit multitudinem innumerabilem, armis de coriis coctis [indutis] indutam, arcubus et sagittis habilem, in dronedaris et camelis, ducentes plurimos elefantes, et homines sunt habentes capita canina; quidam monocoli, unum oculum magnum habent in fronte; ali monopedes qui uno fulci pede, cum iacent, umbram sibi pede faciunt, ipsum pro tugurio preponentes. Quidam etiam caput infra spatulas habent, etros in pectore et oculi in eorum cervicibus videantur, qui Tartari nuncupantur, sed ipsi depressa capita portant, non tantum qui preliari nituntur. Hii beluas manticoras secum habent, qui facie hominis, corpore et pedibus leonis, caudascorpionis, dentiumordine triplici sunt compacete, vescentes carnes hominum et ferinas. Ipse autem gentes non solum herbas et arbores sed etiam lapides conterebant.

Hoc previdens Alexander, fatatus ut numquam deberet amittere bellum, inventit artem in mille speculis ferreis absinthicis versus solem in conspectu hostium elevatis, unumquodque speculum absinthicum—id est de genere ferri indanico—bene tersum erat et splendens igneos iacientes radios centum cubitorum ante se, ad decem miliaria succendebat, et sic castra et homines, animalia et vestes per ipsam artem inspectivam speculorum omnino conbus-
sit, et devictis hostibus triumphavit.

Primus rex de .xxii. vocatur Anogig, cuius gens habet homines machoras .xii. cubitorum longos, qui cum grifibus reliantur. Secundus rex est Agem habens Agrotos et Bramatos, qui vitam huius mundi dantes Deo se in ignem mittunt alterius vite amore. Tertius rex est Canenazten, habens Cenocefalos, qui capita canina et humana corpora gerunt. Quartus rex est Depar, habens Tervelles qui parentes iam senio confectos mactant pariter et manducant, et qui hoc facere contempnnt apud eos impius iudicatur. Quintus rex est Apodineyr habens Adrios, qui piscis crudos comedunt, et mare salsum bibunt. Sextus rex est Libius habens Planios, qui digitos octo in manibus et octo in pedibus habent. Septimus rex est Limius, habens Arismaspos, unum oculum in fronte gerentes. Octavus rex est Parizeus, habens monopedes, qui uno pede fuli, cum iacent, umbram sibi pede faciunt, ipso se pro tugurio protegentes. Nonus rex est Decletius, Acapitos habens, qui absque collo sunt, pilosi, habentes oculos, nasum et os in pectore. Decimus rex est Zarmenus, habens Brivos et Satiros, qui habent caput cornutum ut yrcus, pectus ut homo, corpus, coxas et pedes ut yrcus. Undecimus rex est Tebleus, habens centauros qui caput et pectus habent humanum, corpus autem equinum. Duodecimus rex est Carmacios, habens Bilbios, qui carnibus crudis vescuntur. Apud quos serpentes sunt tam magni ut cervos devorent. Terdecimus rex est Calconus, habens Cinochos, apud quos est belua Centrocota, corpus habens asini, pectus et crura leonis. Quartus decimus rex est Amardeus, habens Dandolos, apud quos est Crima bestia cuius pedes sunt elefantis, maxilla apri, cornua duorum cubitorum, quorum uno pugnat, alterum vero reflectit. Quintus decimus rex est Grimardius, habens Eltios et Aniros, gerentes caput hominis, corpus leonis et elefantis. Sextus decimus rex est Anafagus, habens Mardangos nigrros, apud quos est belua Manticora, faciem habens hominis, tripli em in dentibus ordinem, corpus et crura leonis, caudam scorpionis, et oculos sanguineos; cuius vox est sibilus, fingens discrimina vocum, vescens carnem hominum et ferinas, cursu velocissima. Septimus decimus rex est Anafagus habens Alfasrazos, quorum capita sunt equina, gaudentes arcubus et sagittis. Octavus decimus rex est Alaneos, habens Milvios, quorum capita sunt milvorum, pedes grifium, qui validi pugnatores aliis preponuntur. Nonus decimus rex est Tarabus, habens viros moribus reverendos, nimium diligentes, qui nil prospectiunt, quid faciant pro amicorum amore. Vicesimus rex est Fi-
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Ionicius, habens Glocios, qui facies habent hominum et corpora tauri, apud quos est bestia Monoceros, cuius corpus est equi, pedes elefantis, caput cervi, habens unum cornu in medio fronte splendens et acutum. Vicesimus primus rex est Artineus, habens Lellos, apud quos est bestia Claros mugiens ut bos, que cornu ferreum transverberat, sola fovea capitur, nullatenus edomatur. Vicesimus secundus rex est Saltarius, habens Sirenos, qui cantu faciunt alios dormire et, cum vadunt, motu pedum et manuum etiam sine voce cantare videntur pariter et saltare.

Rex aetem et maiores sunt de genere Ysmahelis, qui dicuntur Tartari de Gog et Magog. Iohannes in Apocalypsi dicit quod in novissimis temporibus propter peccata populorum solventur Gog et Magog et preoccupabunt terram. Item alia scriptura: Venient Ysmahelite et possidebunt sanctuarium Dei. Unde, cumulta generabestiarum cum ipsis fuissent inclusa, vulpes non fuerunt incluse, vulpes pessima conata fodere montem, venit ad illos. Quam quasi pro miraculo intuentes, venerunt post illam usque ad portas, et, viso exitu, per divinam potentiam valvas, absinticum et lapides contrivertunt, exeuntes cum armis, que fabricaverant crudelia dum in montibus habitarent.

Videns Deus quod omnis esset tantummodo caro, et unusquisque querat que sunt sua, nonque Dei, et quod fetor peccatorum celum tetigerit, terram quasi areaem proposuit expurgare. Sapiens enim est sine operibus bonis, senex sine religione mentis, adolescens sine obedientia seniorum, dives sine eleemosyna et ospitalitate, femina sine pudicitia, religiosus sine humilitate, contentiosus in verbis. Pauper sine servitio, arrogans et elatus, rex sine Dei amore, cupidus et avarus, episcopus sine regula, negligens in doctrina, iudex invidus et iniquus, plebs usuraria sine disciplina, populus in provincia sine legel vel fide. Hinc est, amice karissime, quod gens illa crudelis iam faciem terre incipit occupare in tribus exercitibus disperitita.
### APOCRYPHAL LETTER FROM AL-KINDI

#### THE TWENTY-TWO TARTAR KINGS SHUT UP BEHIND THE CASPIAN GATES

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ADDENDA ET CORRIGENDA

II p. 134: Abū Ma'šhar, *Isagoge minor*. This text has now been edited alongside the Arabic original in Abū Ma’šar, *The Abbreviation of the Introduction to Astrology Together with the Medieval Latin Translation of Adelard of Bath*, ed. and transl. C. Burnett, K. Yamamoto and M. Yano, Leiden, 1994. Here it is shown that the translations of Adelard are not quite so literal as implied in this article.

II p. 137: *astronodia* can also be found in Raoul de Longchamp’s commentary on Alain de Lille’s *Anticlaudianus*, ed. Sulowski, Wroclaw etc., 1972, p. 66. Raoul may be indebted to Ut testatur Ergaphalau since he also refers to the divisions of astrology ‘fabulosa, historialis, onomica’ and ‘imaginaria’ (ibid., p. 212).

II p. 144, right-hand column, line -18: ‘aut in fortuna conservat’.

III p. 86, line -11: the Arabic words should be ‘usṭuqussun’ and ‘maghnatiš’.


IV p. 1047, line 6: it is now established that the correct form of the archbishop’s name is Gonzalo Pérez Gudiel; see the studies of Peter Linehan and J. Hernández, e.g., “‘Animadverto’: a Recently Discovered Consilium Concerning the Sanctity of King Louis IX’, *Revue Mabillon*, n.s. 5, 1994, pp. 83–105.

IV p. 1048, line -9: the work of Abū Ma’shar is not his *Great Introduction to Astrology*, but his *On the Great Conjunctions (De magnis coniunctionibus)*.

IV p. 1050, line 11: note that *The Sufficiency* is the English translation of the Latin title applied to Avicenna’s *Shīfā—Sufficientia*, which is not a translation of the Arabic title (which means ‘Cure’) but may be a quasi-transliteration or erroneous expansion of the Arabic title.

IV p. 1054, n. 85: a revised version of this article is published as ‘European Knowledge of Arabic Texts Referring to Music: Some New Material’, *Early Music History*, 12, 1993, pp. 1–17.

VI p. 168: a similar confusion of ‘Medi’ and ‘Egypti’ (perhaps arising from the aural similarity of the Arabic for Egypt—Miṣr—and ‘Med-’) occurs in Adelard of Bath’s translation of the *Abbreviation of the Introduction* (see Add. II above).

VIII. For another use of runes for summoning spirits see Hartmut Beckers, ‘Eine spätmittelalterliche deutsche Anleitung zur Teufelsbeschwörung mit Runenschriftverwendung’, *Zeitschrift für deutsches Altertum und deutsche Literatur*, 113, 1984, pp. 136–45. Here too key words are transliterated into runes.


X p. 192: in sentence 2 of the text ‘(middle line)’ should read ‘(higher line)’.

X p. 195, last sentence: 58 Hidden things will be discussed elsewhere.


XI p. 147, n. 21: note that the subjects that Roger Bacon claims have been censored from the *Secretum secretorum* are exactly those of the *kitāb al-Iṣṭamāṭīs* and its siblings.

ADDENDA ET CORRIGENDA

equivalents differ from the Catalan only in the following cases: \( C = 24, F = 4, L = 12, O = 8, Q = 13, R = 16, X = 16, Z = 4 \).

XI. Further examples of 'The Victorious and Vanquished' can be found in the following manuscripts:

A. The Greek tradition of the 'Victorious and Vanquished' is condemned by Hippolytus, bishop of Rome (d. 235), who gives a detailed account of the procedure in *Refutatio omnium haeresium*, IV. 14, using the examples of Ajax and Hector, Alexander and Menelaus, Amycus and Polydeuces, Ajax and Odysseus, Achilles and Asteropaeus, and Menelaus and Euphorbus, and describes the divisions by 9 and those by 7. There are no tables, but the procedure is summarised as 'When one number is odd, the other one even, the odd number wins, if it is larger. If the two numbers are both odd or both even, the lower number wins.' The table of victorious and defeated numbers also occurs in MS Athens, Historical Society, 211, but in connection with questions concerning the relationship between a man and wife (περί γάμου), and is printed by A. Delatte in *Anecdota Atheniensia*, 2 vols, Liège and Paris, 1927, I, pp.132–5.


J. Finally it occurs in the *Livre de Sidrac* in at least the French version (British Library, Add. 17914, section 958 in the edition of E. Ruhe, in preparation).

XIII p. 38, n. 36: *al-thaghr* was the usual term for the frontier region between Muslim-controlled and Christian-controlled Spain.

XIII p. 39: the manuscripts on scapulimancy in Arabic listed by Sezgin as being by al-Kindi are Istanbul, Şehit Ali Paşa 1812, Nuruosmaniye 2840, Bursa, Hüs. Çelebi 882/5, Tunis, Aḥmad. 5608 and Baghdad, Matḥaf 1489. Of these, the first two share the same text, while the Nuruosmaniye repeats a section from this text, attributing it to Hermes, and Tunis, Bibliothèque nationale 18848 (from the H. Ḥusni ʿAbdalwahhab collection) has another fragment of the same text. In addition, M. Ullmann (*Die Natur- und Geheimwissenschaften im Islam*, Leiden, 1972, p. 381) refers to MS Cairo, Ṭal'at 406 majāmiʿ as containing a text on the