

PTOLEMY'S TERMS & CONDITIONS



DEBORAH HOULDING

The illustration shows a 10th-century scribe's table of terms according to Ptolemy, from the oldest extant manuscript of the 'Anonymous Paraphrase' of Ptolemy's *Tetrabiblos* (Four Books), as preserved in *Codex Vaticanus Graecus 1453*, S.X, folios 50r and 50v.

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The Transmission of Ptolemy's Terms to Lilly and Beyond: An Historical Overview, Comparison and Interpretation

— DEBORAH HOULDING —

The following paper was initially prepared for circulation at a workshop on ancient astrology which was held at the Warburg Institute, London, on 16-17th February 2007. This workshop invited selected participants from the realms of academia and astrology, with the aim of bringing together scholars and practitioners of ancient astrological technique, and to enable a fruitful, multifaceted discussion of the subject as seen from various perspectives. All presenters benefitted from the lively debate and helpful additions on their subject which were volunteered by other interested parties who were working in their fields, subsequent to each presentation. This essay and the eleven other papers delivered on that day were later 'polished up' following the feedback and comments, and published in a special double issue of *Culture and Cosmos* entitled 'The Winding Courses of the Stars: Essays in Ancient Astrology' (*C&C* vol. 11 no 1 and 2, spring/summer and autumn/winter 2007).

Abstract

The planetary rulership of terms [*a.k.a.* bounds, limits, confines] has always been a contentious issue. Ancient astrologers such as Ptolemy and Valens recorded the heated disagreements of their time, and demonstrated the differences between competing national systems. The Egyptian system was clearly predominant in the preserved records of classical astrologers, but by the end of the medieval period the popularity of the standard rendering of the Egyptian table waned, as support moved to a variant recording which supposedly presented the table according to its originating logic. This table was 'deemed worthy of record' by the illustrious Ptolemy, for which reason some claim it to have been Ptolemy's own preferred choice. Although there is nothing to show that this was actually the case, belief in Ptolemy's personal endorsement raised this table to the position of dominance by the time of the Renaissance, when it was said to have settled all disagreements amongst astrologers and to have helped standardize European astrological technique. Even if this were true (it is not), the inconsistency by which the Ptolemaic terms are recorded makes this table the most problematic and controversial of all. What the inconsistencies are, and why they exist, is the focus of this paper.

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Preliminary historical outline

Sources that have influenced our understanding of Ptolemy's *Tetrabiblos*

The Paraphrase: *Procli Paraphrasis*

- Supposedly compiled by the 5th century astrologer Proclus, to reproduce the text of Ptolemy's *Tetrabiblos* in a form which conveyed the gist of Ptolemy's meaning without adhering to Ptolemy's own, rather complicated, style of expression.
- Oldest extant copy is a 10th-century Greek manuscript, currently housed in the Vatican Library in a manuscript catalogued as *Codex Vaticanus Graecus 1453*.
- This was carefully transliterated into Greek with an accompanying Latin translation by the Vatican scholar Leo Allatius in 1635.
- The Latin text of the Allatius edition forms the basis of the English translations published by:
 - › John Whalley – 1701: heavily criticised, this was revised and corrected (though still criticised) in 1786, in an edition which is often known as the Sibley edition, because it was published by the Sibley brothers.
 - › J. M. Ashmand – 1822
 - › James Wilson – 1828
 - › Other, privately circulated manuscripts, such as that of John Worsdale.
- The more loosely recorded *Paraphrase* is therefore the source of all the English-language translations of the *Tetrabiblos* produced prior to that of Frank Eggleston Robbins in 1940.

The *Tetrabiblos*

- Compiled by Ptolemy in 2nd century, no copies of his original manuscript remain, but we have other ancient works which reproduce certain comments or passages from it, and later reproductions and translations which were made to circulate knowledge of Ptolemy's work.
- Ptolemy's terms are detailed in the 5th century text of Hephaistio's *Apotelesmatics I*.
- The oldest existing manuscript which purports to present Ptolemy's full text (though as a translation) is the 9th century Arabic translation by Ishaq ben Husein.
- The oldest Latin translation (which was translated out of the Arabic source mentioned above) was made in Barcelona by an Italian, Plato de Tivoli, in 1138.
- The oldest (fairly complete) manuscript which reproduces a Greek edition of the text is dated to the 13th century.
- The first Latin edition to be based upon a Greek source rather than an Arabic source is that of the German classical scholar Joachim Camerarius, 1535, who reproduced the text in both Greek and Latin.

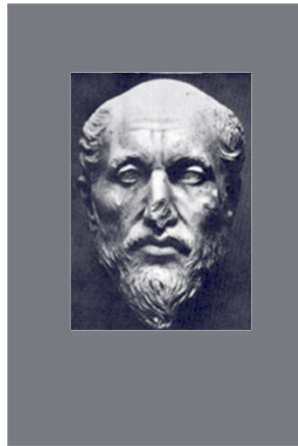
- The first English translation to be based mainly upon manuscripts of the *Tetrabiblos* rather than the *Paraphrase* was that of F.E. Robbins, 1940. He used the Greek text of Camerarius as his primary source.
- Later the same year (1940) a new Greek edition was published, by Professor Franz Boll and Emilie Boer – based upon Camerarius and various other Greek sources.
- The Boll-Boer edition provided the Greek text which was translated into English by Robert Schmidt for the serialised Project Hindsight translation, in 1994.
- Latest critical edition of the Greek text was published by Wolfgang Hübner in 1998.

The *Anonymous Commentary*

- Also supposedly compiled by the 5th century astrologer Proclus.
- Published in Greek with a Latin translation by Hieronymus Wolf in 1559.
- Incorporated into various subsequent Latin commentaries on the *Tetrabiblos* (such as those of Cardan and Junctinus) but has not – as yet – been published in English.



Ptolemy
(2nd cent.)



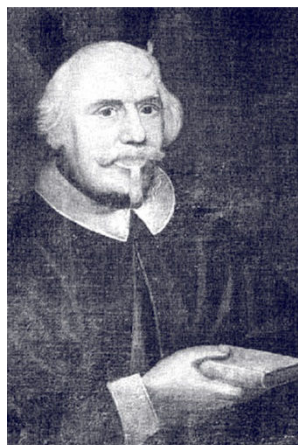
Proclus
(5th cent.)



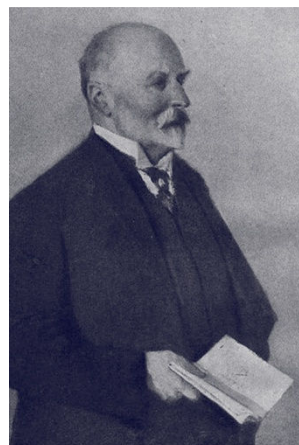
Joachim Camerarius
(1500-1574)



Hieronymus Wolf
(1516–1580)



Leo Allatius
(1586-1669)



Franz Boll
(1867–1924)

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Introduction

With the renewed interest in Hellenistic techniques, many modern astrologers who employ the planetary terms are choosing to adopt the ‘Egyptian system’ which was evidently favoured by early classical astrologers. Most, however, continue to employ a variant of these, the so-called ‘Ptolemaic terms’, as set out in William Lilly’s 17th century textbook *Christian Astrology*.¹ The continued reproduction of Lilly’s text and the influence it maintains upon astrologers studying traditional techniques² has given this particular rendering of the terms a position of such authority that even software products which allow their computation are set to Lilly’s values by default. This is despite the lack of any attempt by Lilly to explain the logic of the table, and ignoring the fact that a sequence within his presentation is contradicted by all recent publications of Ptolemy’s *Tetrabiblos*. This sequence is in Gemini, where Lilly records the 4th set of terms as ruled by Saturn, and the 5th by Mars (see fig. 1). All English translations of the *Tetrabiblos* have these two positions reversed, as do the Greek critical editions of Boll-Boer³ and Hübner.⁴

A Table of the Essentiall Dignities of the PLANETS according to Ptolemy.												
Y. Signes.	Routes of the Planets.	Exaltation	Triplets of the Plan.	Di. Noc.	The Terms of the Planets.					The faces of the Planets.		
					♌	♍	♎	♏	♐	♑	♒	♓
☿	♌	♌	♌	♌	6	14	21	26	30	10	20	30
♁	♌	♌	♌	♌	8	15	22	20	30	10	20	30
♂	♌	♌	♌	♌	7	14	21	25	30	10	20	30
♄	♌	♌	♌	♌	6	13	20	27	30	10	20	30
♃	♌	♌	♌	♌	9	13	19	25	30	10	20	30
♂	♌	♌	♌	♌	7	13	18	24	30	10	20	30
♁	♌	♌	♌	♌	6	11	19	24	30	10	20	30
♁	♌	♌	♌	♌	6	14	21	27	30	10	20	30
♁	♌	♌	♌	♌	8	14	19	25	30	10	20	30
♁	♌	♌	♌	♌	6	12	19	25	30	10	20	30
♁	♌	♌	♌	♌	6	12	20	25	30	10	20	30
♁	♌	♌	♌	♌	8	14	20	26	30	10	20	30

Fig. 1: reproduced from Lilly’s *Christian Astrology*, p.104 (1647)

Why does this divergence exist, and why do astrologers continue to support the values recorded by Lilly in disregard of the mounting evidence against it? Ptolemy declares the table to be built upon a natural and consistent rationale, which should make its principles of construction readily extractable. But they are not. The enigma of its arrangement is evident in the fact that no one, so far, has been able to propose a philosophical justification that fully supports any record of its sequence and number.

Establishing which (if any) of the recorded table of terms can be accepted as authoritative requires discovery of the elusive principles upon which it is based. The purpose of this study is to determine the facts available in the instruction in the *Tetrabiblos*,

¹ Lilly, William, *Christian Astrology* (London, 1647) [hereafter *CA*]. The terms, shown in fig. 1, are recorded on p.104 in Lilly’s ‘Table of the Essentiall Dignities of the Planets according to Ptolemy’.

² *CA* is one of the most comprehensive and readily available traditional works aimed at the student astrologer, the horary volume of which contains 35 of Lilly’s own charts which are studied for precedence of technique.

³ *Claudii Ptolemaei Opera quae exstant omnia*, ed. F. Boll and E. Boer (Leipzig, 1940; repr. 1957) [hereafter Boll-Boer].

⁴ *Claudii Ptolemaei Opera quae exstant omnia. Vol. III, 1: Apotelesmatika*, ed. W. Hübner (Stuttgart/Leipzig, 1998) [hereafter Hübner].

the commentaries made upon it, and the logic which is implicit in its overall design. The way that records of the table have altered over time also demands some knowledge of the historical transmission of Ptolemy's text; so the first part of this paper explores the divergence of the manuscript tradition, the knowledge of which highlights salient points of conflict which are considered in the later review of the table's construction. The conclusion led me to shift considerably from the position I held at the start of this research, and proposes a new meaning for one of Ptolemy's comments, which significantly impacts upon an essential principle of this table, and gives it more meaning as a system used to rank the positive influence of the planets within the signs. My conclusion also throws support towards one particular ancient account of this table, which currently finds little favour in the astrological community, but which I argue to be the most consistent in its logic.

Although this research was prompted by my initial desire to verify that single point of confusion in the table given by William Lilly, upon examination I found it discouraging to realise just how much disagreement exists in the recording of the Ptolemaic terms by various historical sources. Figure 2 presents a selection of arrangements by various translators and astrologers, all of whom disagree with Lilly and each other. The list is not comprehensive, but enough to illustrate the diversity of opinion that exists regarding the correct intention of Ptolemy's manuscript.

Each table will be referred to in the subsequent analysis, as a demonstration of where, when or why alterations in transmission occurred (fig. 2 presents them in the order by which they are discussed). The Ashmand rendition (fig. 2, table 2) is considered first, as a typical example of the 18th/19th century English-language translations that are based upon a paraphrase of the *Tetrabiblos* rather than the manuscripts which claim to reproduce its text exactly. All of the *Paraphrase*-based translations derive from one common source, a point which demonstrates that frequency of repetition is, by itself, no guarantee of veracity.

The influence of the *Paraphrase*

J. M. Ashmand, who produced one of the early English translations of the *Tetrabiblos* in 1822, drew upon the weight of Lilly's reputation for being knowledgeable in Ptolemy's work,⁵ by directing attention to Lilly's remark, that of all the translations he had personally read, it was the source used by Ashmand, (the Latin translation 'performed by [Leo] Allatius' in 1635), which Lilly conceived to be the 'most exact'.⁶

Allatius, Greek by birth but holding office in the Vatican Library at Rome, had based his own work upon an anonymous Greek paraphrase of the *Tetrabiblos*, which is speculatively

⁵ In drawing attention to the remark, Ashmand also referred to Lilly as 'no light authority in these matters'. *Ptolemy's Tetrabiblos, or Quadripartite, being Four Books of the Influence of the Stars, Newly Translated From the Greek Paraphrase of Proclus*, tr. J.M. Ashmand (London, 1822) [hereafter Ashmand]; preface, p. xvii, note 1.

⁶ At the end of *CA* Lilly listed 228 works that he owned. His endorsement of Allatius' translation of the *Paraphrase* is given at the end where he writes: 'these I mention are all my own, &c. many of these perhaps have been since printed at other places: indeed Ptolomy hath been printed in folio, in quarto, in octavo, in sixteens, and hath been translated severall times out of Greek into Latin: that lately printed at Leiden I conceive to be the most exact, it was performed by Allatius, &c.'

Fig.2: Alternative arrangements of Ptolemaic terms compared with those of Lilly

Table 1: William Lilly (1647)						
Υ	♃	♀	♆	♂	♁	
♃	♀	♆	♃	♁	♂	
♁	♆	♃	♀	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♂	♀	♆	♃	♁	
♂	♁	♀	♆	♃	♁	
♁	♃	♀	♆	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	

Table 2: J.M Ashmand (1822)						
Υ	♃	♀	♆	♂	♁	
♃	♀	♆	♃	♁	♂	
♁	♆	♃	♀	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♂	♀	♆	♃	♁	
♂	♁	♀	♆	♃	♁	
♁	♃	♀	♆	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	

Table 3: F.E. Robbins (1940)						
Υ	♃	♀	♆	♂	♁	
♃	♀	♆	♃	♁	♂	
♁	♆	♃	♀	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♂	♀	♆	♃	♁	
♂	♁	♀	♆	♃	♁	
♁	♃	♀	♆	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	

Table 4: Boll-Boer/ Schmidt/ Hübner (1940 / 1994 / 1998)						
Υ	♃	♀	♆	♂	♁	
♃	♀	♆	♃	♁	♂	
♁	♆	♃	♀	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♂	♀	♆	♃	♁	
♂	♁	♀	♆	♃	♁	
♁	♃	♀	♆	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	

Table 5: Plato of Tivoli/ Bonatus (12th / 13th cent.)						
Υ	♃	♀	♆	♂	♁	
♃	♀	♆	♃	♁	♂	
♁	♆	♃	♀	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♂	♀	♆	♃	♁	
♂	♁	♀	♆	♃	♁	
♁	♃	♀	♆	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	

Table 6: Hephaistio (5th cent.)						
Υ	♃	♀	♆	♂	♁	
♃	♀	♆	♃	♁	♂	
♁	♆	♃	♀	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♂	♀	♆	♃	♁	
♂	♁	♀	♆	♃	♁	
♁	♃	♀	♆	♂	♁	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	
♁	♃	♀	♆	♁	♂	
♂	♃	♀	♆	♁	♂	

contradicts Lilly's arrangement						
agrees with Lilly's arrangement only by selecting from alternative options						

attributed to the 5th century philosopher Proclus (and therefore known as the ‘*Proclus*’ *Paraphrase* even though the authorship remains unsettled).⁷ Allatius reproduced the text in Greek and made the first widely available translation in Latin.⁸ The content of the *Paraphrase* remains close in meaning to that of translations made from copies of the

⁷ Robert Hand expresses his view that: ‘It is almost certainly not the work of Proclus, but of a Byzantine writer of several hundred years later’. Ptolemy, *Tetrabiblos Book I*, tr. R. Schmidt (Berkeley Springs, WV, 1994) [hereafter Schmidt]; ‘Introduction’ by R. Hand; p. iv, note 1.

⁸ The German scholar Phillip Melanchthon prepared a preface and translated some of the text into Latin in 1554 but this was not widely circulated. The preface of Ashmand’s edition translates the anonymous ‘Address to the Reader’ given in Allatius’ text, which contains information on Allatius (*a.k.a.* Allatio/Allici), and the history of the publication (pp.xvii-xviii). From this it appears that Allatius did not intend publication of his manuscript but that it ‘escaped his control’ after a copy brought to Venice was forwarded to the author of the ‘Address’, who thereupon: ‘delayed not to avail myself of the advantages I possessed in having access to our excellent and most accurate typesetters, the Elzevirs, and I earnestly solicited them to publish it: they, in their love for the commonwealth of letters, took upon themselves the charge of printing it in the form you see’. An online reproduction of Allatius’ text is available to researchers courtesy of the Warburg Institute at: <http://warburg.sas.ac.uk/pdf/fah450parav.pdf> - *Procli Diadochi Paraphrasis in Ptolemai libros IV de Siderum effectiōibus, e Graeco in Latinum conversa*, tr. Leone Allatio. Lugd. 1635 (hereafter *Paraphrase*).

Tetrabiblos, but its use of a simpler form of Greek language allows the text to seem more accessible and therefore (according to some) clearer in its purpose. Lilly's positive review of the Allatius edition has helped to fuel a dubious belief that the *Paraphrase* is a more reliable source than translations of the actual manuscript, so that Ashmand was to write of it: 'Proclus's Paraphrase of the *Tetrabiblos* should properly be considered as superior to the other readings of that book'.⁹

But Ashmand was boosting the value of the source used in his own translation, so he was not free from bias. Although the attention to detail paid by Allatius is held in high regard, the claim of superiority of the *Paraphrase* over manuscripts of the original text is very questionable. Even so, credible support for the value of the *Paraphrase* is also given by Frank Eggleston Robbins who, in the introduction to his own translation, argued that the *Paraphrase* must be given considerable importance in any study of the original text: 'Since it follows the *Tetrabiblos* very closely, and since, as it happens, one manuscript of the *Paraphrase* is older than any of those of the *Tetrabiblos*, this document must be taken into consideration by any editor of the later work'.¹⁰

Before Robbins published his version of the *Tetrabiblos* in 1940, all of the early English translations which purported to offer its text were mainly based upon the Latin translation of the *Paraphrase* produced by Allatius. The first to bear widespread publication was produced by John Whalley in 1701, with a supposedly 'revised, corrected, and improved' version appearing again in 1786. Ashmand, scathingly critical of both editions of the

Fines secundum Ptolemaum

Arietis			Tauri			Geminorum		
♈	6	6	♀	8	8	♀	7	7
♀	8	14	♀	7	15	♈	6	13
♀	7	21	♈	7	22	♀	7	20
♂	5	26	♁	* 2	24	♂	6	26
♁	4	30	♂	† 6	30	♁	4	30
Canceri			Leonis			Virginis		
♂	6	6	♈♁	6	6	♀	7	7
♀♈	7	13	♀	7	13	♀	6	13
♈♀	7	20	♁♀	6	19	♈	5	18
♀	7	27	♀	6	25	♁	6	24
♁	3	30	♂	5	30	♂	6	30
Libra			Scorpi			Sagittarii		
♁	6	6	♂	6	6	♈	8	8
♀	5	11	♀♈	⁸ 7	¹⁴ 13	♀	6	14
♀♈	⁸ 5	¹⁹ 16	♈♀	7	21	♀	5	19
♈♀	⁵ 8	24	♀	6	26	♁	6	25
♂	6	30	♁	3	30	♂	5	30
Capricorni			Aquarii			Pisium.		
♀	6	6	♁	6	6	♀	8	8
♀	6	12	♀	6	12	♈	6	14
♈	7	19	♀	8	20	♀	6	20
♁♂	6	25	♈	5	25	♂	6	26
♁♁	5	30	♂	5	30	♁	5	25
						♁	4	30

Fig.3: The table of Ptolemy's terms reproduced from Allatius' *Procli Paraphrasis*, (1635) p.72

⁹ Ashmand, Preface: xxiii, footnote 1.

¹⁰ Ptolemy, *Tetrabiblos*, tr. F.E. Robbins (Cambridge, MA, 1940) [hereafter Robbins], Intro., III, pp. xvi-xvii. Later Robbins writes: 'The earliest text of the *Tetrabiblos* itself is one of the 13th century. There is but one full manuscript even of this degree of antiquity, and only two or three from the 14th century; most of them are from the 15th and 16th. In view of this fact it is fortunate that we have one (but only one) manuscript of the *Paraphrase* which antedates all of these, having been written in the tenth century'. (Intro., IV, p. xviii).

Whalley translation,¹¹ published his own in 1822, and around the same time James Wilson also undertook the task.¹² Since they all use the *Paraphrase* as their primary source it is not surprising that all of these authors base their arrangement of the Ptolemaic terms on the details tabulated by Allatius, as shown in figure 3 (above). Referring to these earlier English versions, Robbins was to comment: 'In truth, Ptolemy is not easy to translate accurately, and though Whalley's version is worse than the others, all show a certain willingness to disguise the difficulties with smooth-sounding but non-committal phrases'.¹³

Non-committal is an apt description for the presentation of the table of Ptolemaic terms in the *Paraphrase* and the texts that follow it. It seems unsure about what some of the values should be, in ten places including an option of two planets, and creating an alternative for the length of the final terms in Taurus by way of a margin note.

Ashmand stated that he cross-referenced his main source against the 16th century texts of Camerarius, Melancthon, and Junctinus, so he took it upon himself to change the rulership of the 4th term of Leo from Venus to Jupiter, thereby finding agreement with those texts. He was no doubt influenced by his translation of a comment in the text of the *Paraphrase* which, in spite of offering an option for either Jupiter or Saturn to rule the 1st terms of Leo in the table, specifically declares that the rulership should be given to Saturn: 'In Cancer and Leo, however, the malefics occupy the first degrees; as those signs are the houses of the Sun and Moon which take no terms'.¹⁴ If Saturn rules the 1st set of terms, Venus alone is left to rule the 3rd set in that sign, and cannot then also rule the 4th set whilst leaving Jupiter unaccounted for. The consequence is that Ashmand's rendering of the terms, although appearing at first glance to differ substantially from the table found in the critical Greek editions of Boll-Boer and Hübner, actually can always agree with those tables, in one of the two options presented.

¹¹ Ashmand lamented that Whalley's first edition was full of misinterpretations which rendered most of its pages unintelligible, and that the corrected edition was 'not, in any one instance, purified from the blunders and obscurities which disgraced its predecessor' (Preface: xvii).

¹² The date of Wilson's text is disputed and entries in the British Library are marked with a question mark. Some accounts say it was first published in 1820 (therefore pre-dating Ashmand), others say 1828. Ashmand seemed unaware of Wilson's text when publishing his in 1822, referring to the Whalley edition as 'The only English translation of Ptolemy's Tetrabiblos, hitherto published' (Preface, p. xvii). There were however, earlier English translations which were circulated privately. Luke Broughton, in his *Elements of Astrology* (New York, 1898) makes the following remarks: 'Ptolemy's Four Books on Astrology are to the European and American Student what the Bible is to the student of Christian Theology, consequently we have had a great number of translations of "Ptolemy's Tetrabiblos". I have some six or eight translations myself; for instance Sibley's, Whalley's, Wilson's, Ashmand's, Cooper's, Worsdale's and a few others that I cannot bring to mind.' (p.7). The references to 'Sibley's' and 'Cooper's' works are misleading; the second edition of Whalley's version, published in 1786, was revised by the Sibley brothers, and so sometimes referred to as their edition, whilst the 'Cooper' edition actually refers to John Cooper's translation of *Primum Mobile*, a work produced by Placidus and heavily influenced by Ptolemy's *Tetrabiblos*. Of the 'Worsdale' edition, Broughton writes: 'Worsdale's translation has never been printed, and those who have the book either had to copy it by hand, as I have done, or else buy it at a very high price as it is extremely scarce.' (p.5).

¹³ Intro., III, p.xvi.

¹⁴ Ashmand, p.35. Ashmand, however, has changed the meaning from that recorded by Allatius, his source. We will return to this point, and the inaccuracy of Ashmand's translation, later in this paper.

Fig.4: Tables to demonstrate influence of the *Paraphrase* values, as recorded by Allatius, upon Ashmand and Robbins

S	1	2	3	4	5
♈	♂	♀	♂	♂	♂
♉	♀	♂	♂	♂	♂
♊	♂	♂	♂	♂	♂
♋	♂	♂	♂	♂	♂
♌	♂	♂	♂	♂	♂
♍	♂	♂	♂	♂	♂
♎	♂	♂	♂	♂	♂
♏	♂	♂	♂	♂	♂
♐	♂	♂	♂	♂	♂
♑	♂	♂	♂	♂	♂
♒	♂	♂	♂	♂	♂
♓	♂	♂	♂	♂	♂

S	1	2	3	4	5
♈	♂	♀	♂	♂	♂
♉	♀	♂	♂	♂	♂
♊	♂	♂	♂	♂	♂
♋	♂	♂	♂	♂	♂
♌	♂	♂	♂	♂	♂
♍	♂	♂	♂	♂	♂
♎	♂	♂	♂	♂	♂
♏	♂	♂	♂	♂	♂
♐	♂	♂	♂	♂	♂
♑	♂	♂	♂	♂	♂
♒	♂	♂	♂	♂	♂
♓	♂	♂	♂	♂	♂

S	1	2	3	4	5
♈	♂	♀	♂	♂	♂
♉	♀	♂	♂	♂	♂
♊	♂	♂	♂	♂	♂
♋	♂	♂	♂	♂	♂
♌	♂	♂	♂	♂	♂
♍	♂	♂	♂	♂	♂
♎	♂	♂	♂	♂	♂
♏	♂	♂	♂	♂	♂
♐	♂	♂	♂	♂	♂
♑	♂	♂	♂	♂	♂
♒	♂	♂	♂	♂	♂
♓	♂	♂	♂	♂	♂

contradicts Allatius
agrees with the first option from Allatius

Ultimately the *Paraphrase* yields an ambivalent version of the Ptolemaic terms. It may be that integrity is better preserved in ambiguity than error, but the lack of clarity left an unsatisfactory result for astrologers, who need precise definitions to apply the terms in practice. Subsequently this table of terms became increasingly dropped from 19th and 20th-century publications of western astrological texts, either entirely, or with reference being made exclusively to the more ancient tradition of the Egyptian system. Of course the discovery of new planets and the impossibility of integrating these into the scheme added its own negative impact, but dissatisfaction with the order of terms as presented within the early English translations of Ptolemy's work can be seen in how the few remaining astrologers who continued to use the Ptolemaic terms rejected these versions entirely, and chose to settle the matter amongst themselves by unanimously following Lilly.¹⁵

Fig. 5 (right): A table of fortitudes/debilities in Simmonite's *Prognostic Astronomer* (or *Horary Astrology*) 1852. The newly discovered outer planets are given areas of essential dignity and debility whilst the terms and faces are omitted.

222. A Table of the Essential Fortitudes and Debilities of the Planets.

Signs.	ESSENTIAL FORTITUDES.				DEBILITIES.	
	Planets Houses.	Exaltation.	Tripl. city.	Powerful or joys in	Detrim. ent.	Fall
♈	♂	♁	♁	♁	♀	♏
♉	♀	♂	♂	♂	♂	♏
♊	♂	♂	♂	♂	♂	♏
♋	♂	♂	♂	♂	♂	♏
♌	♂	♂	♂	♂	♂	♏
♍	♂	♂	♂	♂	♂	♏
♎	♂	♂	♂	♂	♂	♏
♏	♂	♂	♂	♂	♂	♏
♐	♂	♂	♂	♂	♂	♏
♑	♂	♂	♂	♂	♂	♏
♒	♂	♂	♂	♂	♂	♏
♓	♂	♂	♂	♂	♂	♏

¹⁵ Robert Cross Smith, the first 'Raphael', in his *Manual of Astrology* (London, 1828, p.133) reproduced Lilly's table. So did Nicholas deVore, in his *Encyclopedia of Astrology*, (New York, 1947, p.416) although he declared the terms to be no longer of any value except for horary astrologers. W. J. Simmonite's *Horary Astrology*, published in 1896, was an important text in the transmission of techniques used by Lilly, but it was one of the first horary textbooks to present a 'Table of Essential Dignities' with the terms omitted (p.222) and he made no reference to them in his text. Other astrologers such as Alan Leo (*Horary Astrology*, 1909) and Sepharial (*The Manual of Astrology*, 1898) ignored the Ptolemaic terms but included tables showing the Egyptian system. Although their use was becoming isolated to horary practice, many well known horary writers such as Ivy Goldstein-Jacobson, Marc Edmund Jones, Barbara Watters, Robert de Luce, and Robert Thomas Cross, (the last 'Raphael') avoided all mention of the terms in their textbooks.

Robbins, the *Tetrabiblos*, & the double-notations of the *Paraphrase*

In 1940, Frank Eggleston Robbins produced the first English language translation of the *Tetrabiblos* to rely more heavily on manuscripts of the actual text rather than the *Paraphrase*. He referred to various sources, but mainly followed the 1553 Greek reproduction (with Latin translation) produced by Joachim Camerarius,¹⁶ the pagination of which he marked in his own reproduction of the Greek text. However, for his tabulated values of the Ptolemaic terms Robbins also referenced the table recorded in the oldest (10th century) Greek manuscript of the ‘Paraphrase of Proclus’.¹⁷ By isolating the first planet of the areas where dual options are presented (see fig. 4, table 3), he was able to claim agreement with Camerarius in all but one place: the end terms of Capricorn. Robbins gives Saturn rulership over the 4th term in Capricorn and places Mars at the end. Camerarius has these positions reversed, as does Lilly and the Greek critical editions of Boll-Boer and Hübner.

In his explanatory footnote¹⁸ Robbins listed all the areas of ‘double notation’ in his 10th century source, (as repeated by Allatius), but failed to mention the dual option of Jupiter *or* Saturn in the first term of Leo. This does exist, but the original manuscript also demonstrates that Jupiter and Saturn do not stand as equally viable alternatives. Whereas Allatius accurately transcribed the values, he did not show the emphasis that can be seen in the older source, where the glyph for Jupiter is not only presented first but is also much larger than the glyph for Saturn and sits squarely in the centre of the table cell, as if the smaller alternative was added only an afterthought (see fig. 6 below). That the first options are intended to be the main values is proven by a comment under the table where the total term values for each planet are listed.¹⁹ These are accurate only if the first planets and their associated numbers are used. We can therefore conclude that the *Paraphrase*, whilst appearing to support alternative values in modern reproductions, originally demonstrated an obvious preference for the first values of the double notations, as Robbins presumed.

ΛΕΟΝΤΟΣ			LEO		
♃ ⁿ	♄	♄	♄ ⁿ	6	6
♃	♄	♄	♃	7	13
♃	♄	♄	♃	6	19
♃	♄	♄	♃	6	25
♃	♄	♄	♃	5	30

Fig. 6: terms of Leo as tabulated in *Vaticanus gr.1453*.

¹⁶ This was the second edition of a work first published in 1535, and is notable for offering the first Latin translation based upon a Greek rather than Arabic source. Robbins writes (p.xxiii): ‘My collations have been made against Camerarius’ second edition, because thus far this has been the standard text and it was most convenient’. See also Appendix A for details of how its Greek and Latin versions of ‘Ptolemy’s terms’ differ.

¹⁷ Ms. *Vaticanus gr.1453*, S. X. The *Paraphrase* is included on ff.1-219; the tables of Ptolemaic terms are on folio 50r-v. Robbins details his sources in a Latin footnote placed under the Greek representation of the table on p.106. Dorian Greenbaum translates: ‘I am following the tables which are found in codex Vaticanus graecus 1453 (containing the Paraphrase of Proclus). These agree with those which were published by Camerarius except alone for ll. 4-5 under Capricorn, where the order of Camerarius is: Mars 5, Saturn 6. However Proclus has some double notations, to wit: l. 4 under Taurus, Saturn 2 or 4; l. 2 under Cancer Mercury or Jupiter, l. 3 Jupiter or Mercury; l. 3 under Leo Saturn or Venus; l. 3 under Libra Mercury or Jupiter, 5 or 8, l. 4 Jupiter or Mercury, 8 or 5; l. 2 under Scorpio Venus or Jupiter, 7 or 8, l. 3 Jupiter or Venus, 8 or 7; l. 4 under Capricorn Saturn or Mars, l. 5 Mars or Saturn; l. 4 under Pisces Mars 5 or 6, l. 5, Saturn 5 or 4’.

¹⁸ See previous note, (17).

¹⁹ ‘ἡ 57 degrees; ♃79; ♂66; ♀82; ♃76; total 360.’ ἡμοῖραι ᾤ: ♃79 ♂66 ♀82 ♃76 τὸ πᾶν 360.

The *Commentary* template and the so-called 'definitive arrangement'

Although the presumed ambiguity of the Paraphrase-based values led to a decline of interest in the terms during the 19th and 20th centuries, more recently the urge to understand the origin and application of traditional technique has flourished amongst astrologers, boosted by a recent surge in translations of classical texts.

In 1994 Project Hindsight combined the translation skills of Robert Schmidt with the editorial skills of astrologer Robert Hand to publish a serialised English translation of the *Tetrabiblos* (the first since Robbins') which aimed to focus upon the needs of astrologers. Criticism levelled at the Robbins translation was that although 'widely regarded as the proper scholarly academic translation, Robbins' translation is as far off the beam as anything that preceded him'.²⁰ The introduction and preface of Book I particularly raise the matter of the Ptolemaic terms, with complaints that these are indistinct in the Ashmand and Wilson translations and 'badly garbled' by Robbins.²¹

Schmidt based his translation upon the Greek text in the critical edition of the *Tetrabiblos*, produced by the joint efforts of Professor Franz Boll and Emilie Boer and published by Teubner in Germany in 1940. The long preparation and careful scholarship applied to this edition makes it widely considered superior to that of the Robbins' English translation published in the same year, and even Robbins confessed his disappointment at not being able to avail himself of the benefits of their experience.²²

The Boll-Boer edition, and Schmidt's translation based upon it, present an arrangement of term rulers that are almost identical to those of Lilly. A footnote to Schmidt's translation declares that astrologers, having the weight of Lilly *and* an authoritative translation of the *Tetrabiblos* combined, can now have full confidence in this 'totally definitive' arrangement:

Of the existing translations of Ptolemy into English, this is the first to present Ptolemy's terms based on the authoritative Teubner edition. While the precise order of degrees in each term may not be totally definitive here, the order of the rulers is. This is important because the terms presented here are almost exactly the same as those used by William Lilly and the other astrologers of 17th century England. The only difference is in Gemini where Lilly has Jupiter 6, Venus 14, Mercury 21, Mars 26 and Saturn 30, due to a difference of one degree in the length of the term of Venus. From what we know, the Lilly variant has as much claim to authenticity as the version given in the Teubner text.²³

²⁰ R. Hand in Schmidt, 'Introduction', p.iv. In my opinion an incorrect assessment.

²¹ *Ibid.*, p.v.

²² Within his Introduction (III, p.xiv) Robbins wrote of it: 'Professor Franz Boll, whose studies of Ptolemy have been cited many times already, had begun work upon a new edition of the *Tetrabiblos* prior to his lamented death, July 3, 1924. His pupil, Fräulein Emilie Boer, however, continued Boll's task, and the appearance of their completed text has been awaited since 1926. I regret very much that my own work on the present text and translation could not have profited from the results of the textual studies of these two scholars.'

²³ R. Hand in Schmidt, p.43, note 4.

In fact, this footnote is in error in its comments about Lilly. There is the failure to realise that Lilly's table does not only deviate by the number of terms allocated in Gemini but also by the order (in the attribution of Saturn to the 4th place and Mars to the 5th). The error is obscured by another in which the terms purportedly demonstrating Lilly's arrangement in Gemini are actually demonstrating his values for Aries.²⁴

The latest critical edition of the Greek text of the *Tetrabiblos* was produced by Professor Wolfgang Hübner in 1998. Based on an examination of 33 complete manuscripts and 14 mutilated ones, Hübner incorporated the unpublished notes of Boer, the indirect tradition of Hephaestio and the reasoning incorporated in the Robbins and Boll-Boer editions. A reviewer's comment in *The Classical Review* declared of it 'Progress over previous editions is evident on virtually every page'.²⁵ Hübner also adheres to the order of terms presented by Boll-Boer edition, and in doing so the weight of critical opinion seems firmly sealed in its favour, leaving Lilly's deviant value for Gemini appearing erroneous.

Was Lilly mistaken in the recording of those Gemini terms, and if not, where did he obtain his values? They were obviously not taken from the Allatius translation of Ptolemy that he conceived to be 'the most exact'. As a working astrologer and tutor of technique he would not have been able to tolerate the apparently vague suggestions of the *Paraphrase*, but would more likely have been guided by the tables presented in the works of the reputable astrologers preceding him. Amongst the books that he owned are two with towering reputations, considered to be of the greatest value to a student aiming to understand the teachings of Ptolemy. These are the elaborate commentaries published by Jerome Cardan (1578) and Franciscus Junctinus (1583). Both of these highly influential texts reveal the order exactly as reported by Lilly. Cardan agrees with both the order and numeration²⁶ whilst Junctinus agrees with the order but varies with the number in two places, one of which is an obvious mistake.²⁷ An earlier precedent for Lilly's table can also be found in the 11th-century text of the Arabic astrologer Al Biruni.²⁸

²⁴ The terms Lilly recorded for Gemini are: Mercury 7, Jupiter 14, Venus 21, Saturn 25 and Mars 30 (*CA*, p. 104).

²⁵ Tiziano Dorandi, *The Classical Review* (2000), New Ser., Vol. 50, No. 1, pp. 30-32.

²⁶ Cardan however, has two typographical errors in his table: Venus is given 6° in Aries instead of 8° and Mars is given 6° in Leo instead of 5°. Since the rest of the terms are left unaltered these are obviously errors in reproduction that would take the total number of terms allocated in those signs over 30. Hieronymi Cardani, *In Cl. Ptolemaei De Astrorum Indiciis, Aut (Vt Vulgo appellant) Qvadrupartitae Constructionis lib. III. Commentaria.*, (Basileae, 1578). The text is reproduced in digital format courtesy of the Herzog August Bibliothek at <http://diglib.hab.de/wdb.php?dir=drucke/n-50-2f-helmst-1>. The table of terms is found on p.196 (00216 of this digital file).

²⁷ Junctinus agrees exactly with regard to the arrangement but varies on the number of degrees for Saturn and Mars in Taurus (his table shows 2° for Saturn and 6° for Mars – note how these terms were annotated by Allatius, they are alternative values that are frequently recorded elsewhere). His table also shows an obvious mistake in allocating 5° instead of 3° to Saturn at the end of Scorpio, since the degrees for Scorpio then total 32. Junctinus (Francesco Giuntini), *Speculum astrologiae uniuersam mathematicam scientiam in certas classes digestam complectens*, Lugduni 1583. Reproduced by Universad de Sevilla at http://fondosdigitales.us.es/books/digitalbook_view?oid_page=212625. The table of terms is found on p. 76 (lr a: 93 of this digital file).

²⁸ Al Biruni agrees with the order but the degrees differ slightly in Gemini (Jupiter gets 1° less and Saturn gets 1° more) and in Scorpio (Jupiter gets 2° less, Mercury gets 1° less and Saturn gets 3°). The Ramsay Wright

Another essential text that Lilly had access to was the anonymous Greek *Commentary on the Tetrabiblos*, which is particularly important in regard to its influence upon subsequent records because of its attempt to explain the principles that generate the values. This work is also speculatively attributed to Proclus (and so usually referred to as the 'Proclus' *Commentary*) yet the fact that the *Paraphrase* and the *Commentary* differ in their account of the Ptolemaic terms is one telling argument that both cannot be the work of the same author. A copy of this *Commentary* was published in Greek with a Latin translation by Hieronymus Wolf in 1559, and has not so far been published in English (the reasoning this text expresses on the arrangement of the Ptolemaic terms will be explored later in this paper).²⁹

It is possible that the agreement found between Lilly and his older sources exists because each considered the logic of the *Commentary* to be the most persuasive account of the arrangement of the terms. When encountering conflicting accounts of the values, astrologers are likely to incline towards those that are supposedly capable of explanation. For this reason I will refer to the *Commentary* as a primary source for one of two main stems of influence that has affected most of the variant renderings.³⁰ The other significant 'template of influence' extends from the preservation of the Ptolemaic terms as recorded by the 5th century astrologer Hephaestio of Thebes.³¹ The *Paraphrase*-based values do not suggest a 'template' by themselves, but rather an attempt to leave the main differences unresolved. The first – obviously preferred – options offer support for the Hephaestio template, whereas the alternatives allow agreement with the values of the *Commentary*.

translation has Mars at the beginning and end of Scorpio (which should read Saturn). This obvious mistake makes me wary that this whole line has been copied incorrectly from the original. *The Book of Instruction in the Elements of the Art of Astrology*, tr. R. Ramsay Wright (London, 1934) [hereafter Al Biruni]; ch. 453.

²⁹ I am indebted to Robert Hand and Dorian Greenbaum for their help in my exploration of the relevant passages in this text. Dorian Greenbaum provided me with copies of the original text in Greek and Latin and Robert Hand provided me with his translation of the Latin into English (this currently remains unpublished). Dorian Greenbaum also helped to clarify suspicions of typographical errors in the Latin text through cross-reference with the Greek.

³⁰ I shall treat the Boll-Boer and Hübner editions as extending from this stem of influence since they mainly agree with the order and deviate only in the two end terms of Gemini. Although the translators relied upon Greek manuscripts of the *Tetrabiblos*, I am accepting the possibility that those later manuscript reproductions were themselves influenced by the purported logic of the *Commentary*.

³¹ Hephaestio of Thebes, *Apotelesmatic Book I*, tr. R. Schmidt (Berkeley Springs, WV, 1994), pp. 4-24. The Schmidt translation contains an error regarding the Virgo terms (which total 29°). I was therefore aided in the compilation of the table by Dorian Greenbaum, who checked the figures against the critical edition of David Pingree (Schmidt's source). Hephaestio, *Hephaestionis Thebani Apotelesmaticorum libri tres, 2 vols.*, ed. David Pingree (Leipzig 1973-74). Stephan Heilen (personal communication) has pointed out that an alternative set of values are attributed to Hephaestio outside of his main work, found in Pingree's edition of *Hephaestionis Thebani Apotelesmaticorum Epitome Quattuor* (vol. 2, Leipzig 1974), Epitome 4, 1.80, p. 144.12-13. These reveal a closer alignment to the values found in the Greek *Commentary*, but confidence in their authenticity is undermined by an editorial note added by Pingree (vol. 1, Preface, p. xx, note 1), which suggests that whoever transcribed this Epitome corrected its orthographical errors by reference to Ptolemy.

Hephaistio and the Arabic line of transmission

In addition to the manuscripts and commentaries on the *Tetrabiblos*, some of its passages can be substantiated by references found in the texts of other ancient writers. But despite the misleading statement of William Lilly, that after the time of Ptolemy Greek astrologers unanimously followed his system of terms,³² very few classical or medieval astrologers made reference to Ptolemy's account of the old manuscript containing an alternative table of Egyptian terms which held to a more philosophically pleasing arrangement.³³ Hephaistio is the earliest classical astrologer to include details of both tables, and the values that he recorded for the alternative set presented by Ptolemy, whilst conflicting with those of the *Commentary*, found a relatively faithful line of transmission through Arabic sources.

Fig. 7: The Ptolemaic terms according to Hephaistio

S	1		2		3		4		5	
♈	♁	6	♀	8 (14)	♃	7 (21)	♂	5 (26)	♄	4 (30)
♉	♀	8	♃	7 (15)	♁	7 (22)	♂	6 (28)	♄	2 (30)
♊	♃	7	♁	6 (13)	♀	7 (20)	♂	6 (26)	♄	4 (30)
♋	♂	6	♁	7 (13)	♃	7 (20)	♀	7 (27)	♄	3 (30)
♌	♁	6	♀	6 (12)	♃	7 (19)	♄	6 (25)	♂	5 (30)
♍	♃	7	♀	6 (13)	♁	5 (18)	♄	6 (24)	♂	6 (30)
♎	♄	6	♀	5 (11)	♃	5 (16)	♁	8 (24)	♂	6 (30)
♏	♂	6	♀	7 (13)	♁	8 (21)	♃	6 (27)	♄	3 (30)
♐	♁	8	♀	5 (13)	♃	5 (18)	♄	6 (24)	♂	6 (30)
♑	♀	6	♃	6 (12)	♁	7 (19)	♄	6 (25)	♂	5 (30)
♒	♄	6	♃	6 (12)	♀	8 (20)	♁	5 (25)	♂	5 (30)
♓	♀	8	♁	6 (14)	♃	6 (20)	♂	5 (25)	♄	5 (30)

We should keep in mind that the oldest extant Greek manuscripts of the *Tetrabiblos* are dated to the 13th century,³⁴ so even our oldest 'original sources' may have been influenced by the copyist's desire to correct obscure or 'faulty' figures, leaning towards a set of values that had found common acceptance at that time. It seems significant that most of the

³² Lilly's misleading quote, familiar to astrologers as his introduction to the table of essential dignities, reads: 'There hath been much difference between the Arabians, Greeks and Indians concerning the Essential Dignities of the Planets; I meane how to dispose the severall degrees of the Sign fitly to every Planet; after many Ages had passed, and untill the time of Ptolomey, the Astrologians were not well resolved hereof; but since Ptolomey his time, the Grecians unanimously followed the method he left, and which ever since the other Christians of Europe to this day retain as most rationall; but the Moores of Barbary at present and those Astrologians of their Nation who lived in Spaine doe somewhat at this day vary from us' (*CA* p.103).

³³ Besides the noticeable absence of reference to Ptolemaic terms in classical texts, Neugebauer and Van-Hoesen report in *Greek Horoscopes* (pp.12-13) that all of their charts utilise the Egyptian system, with only one chart also including 'the terms according to Ptolemy'. That horoscope is a late 5th century chart, L497, translated p.152ff. The oldest horoscope to show the use of the terms is dated to 46 CE (pp.19-20) and was found at Behnesa, Egypt. Antiochus, in his *Thesaurus*, mentions the Egyptian terms and the fact that Ptolemy did not agree with them, but he does not include details of the alternative arrangement. The earliest text I have personally seen which offers details of the Ptolemaic terms *instead* of the Egyptian terms is that of Guido Bonatus.

³⁴ The manuscripts are detailed by Robbins, Intro., IV, p.xviii and Hübner, Preface, p.xiii.

Greek manuscripts present values that are close to those explained by the anonymous Greek *Commentary*, whereas texts transmitted via Arabic sources appear unaffected by its arguments, and retain consistency instead with the ancient record of Hephaistio.

The oldest known Arabic translation of the *Tetrabiblos* predates the extant Greek manuscripts by four centuries, being that of the 9th century Nestorian physician Ishaq ben Hunain (809-873).³⁵ This was subsequently translated from Arabic into Latin in 1138 by Plato de Tivoli. Another anonymous translation from Arabic to Latin was made in 1206; and the 11th century *Commentary* on Ptolemy's *Tetrabiblos* produced by Ali ibn Ridwan (Haly) was translated in the mid-13th century by Aegidius de Thebaldis of Parma. These works were the initial means by which knowledge of the *Tetrabiblos* was circulated in the west until the flurry of interest in new translations based on Greek manuscripts in the 16th century, (beginning with the Greek transcription and Latin translation of Camerarius). The influence of these Arabic transmissions therefore fell more heavily upon Medieval Latin authors such as the 13th century Italian astrologer Guido Bonatti, who shows complete agreement with the terms as presented by Plato de Tivoli and Ali ibn Ridwan.³⁶ F.E. Robbins also finds close agreement, because these values usually present the first planet of the two options recorded by the *Papraphrase*. (The only place where Robbins differs from Arabic authors is where he aligns himself more closely with the ancient record of Hephaistio in his selection of Jupiter rather than Saturn as the first term-ruler in Leo).

Fig. 8: Comparison of terms recorded by Hephaistio, Plato, Haly, Bonatus & Robbins

Plato of Tivoli, Haly, Bonatus and Robbins generally agree with Hephaistio, except:

In Taurus the order and number of terms ruled by Mars and Saturn are reversed (so Saturn rules the 4th set of terms and is allocated 2°, whilst Mars rules the final set and is allocated 6°). In Sagittarius there is closer agreement with the *Paraphrase* in attributing 6° to Venus and 5° to Mars.

The terms of Leo are problematic for these authors however. Plato of Tivoli, Haly and Bonatus replace Jupiter with Saturn in the first set of terms, and because Jupiter has been displaced it is allocated to the end. Mars is given rulership over the central set of terms, even though this seems to go against a clear rule given in the *Tetrabiblos* that where malefics do not take the first place, they should be placed at the end. Robbins maintains the position of Jupiter in the first place and Mars at the end, placing Saturn instead in the central position. The deviation for the terms in Leo by Plato, Haly, Bonatus and Robbins are shown below:

Plato de Tivoli, Haly & Bonatus:	♁: ♃ 6 - ♀ 7 - ♂ 5 - ♀ 6 - ♃ 6
Robbins:	♁: ♃ 6 - ♀ 7 - ♃ 6 - ♀ 6 - ♂ 5

³⁵ Thorndike, *History of Magic and Experimental Science*, New York, 1923; I, p110.

³⁶ Plato de Tivoli: *Cl. Ptolomaei Pheludiensis Alexandrini Quadripartitum*. I have used the Johannes Hervagius, 1533 (Basel) reproduction, available online courtesy of the Warburg Institute. The table of Ptolemaic terms is shown on p.27 of the manuscript (p.20 of this pdf file). warburg.sas.ac.uk/pdf/fah750pto.pdf.

Ali ibn Ridwan: My thanks to Robert Hand for providing me with a digital reproduction of the table of terms as shown in the Aegidius de Thebaldis Latin translation; (folio 27 recto: Venice, 1493).

Guido Bonatus: *Foroliviensis Mathematici De Astronomia Tractatus X*. (Hardenberg, 1550), pp.49-50. Available online via Johannes A Lasco Bibliothek: hardenberg.jalb.de/display_dokument.php?elementId=5257

Both of these conflicting stems of influence have a legitimate claim to serious consideration. As a general principle, manuscripts of classical works that remain in the original Greek are considered less susceptible to corruption than translations; yet the Arabic translations find support in the work of the astrologer who was the closest contemporary of Ptolemy to write of the issue. Both can claim a 'weight of authority' and frequency of repetition, so this alone cannot help us to decide which of the two is most authentic. The greater strength of the *Commentary* is that it supposedly demonstrates the 'natural and consistent' order which Ptolemy claimed as the point in favour of the alternate table of terms he presented. Astrologers would naturally lean towards this if it does so. But is its logic as reliable as we expect it to be? Or has it actually 'fudged the issue' because the true principles of this table of terms were never clearly understood? With these questions in mind, let us explore the reasoning for the order of terms as explained by the *Tetrabiblos* with the additional explanation provided by the anonymous commentator.

Ptolemy's introduction to the terms

Ptolemy begins his section on the terms with an outline of the two systems most prevalent in his time: those of the Chaldeans and Egyptians. He then presents an additional scheme which appears to be less well known, based upon information that has been found in an 'ancient and much deteriorated manuscript'.³⁷ Although these are now referred to as 'Ptolemy's terms', and despite the frequent implications that this was his preferred arrangement, Ptolemy played no part in their design; admitted that he struggled to understand their logic himself; and takes a fairly neutral stance in regard to their value. He nowhere claims that they are better or more effective than the Egyptian terms (in fact he declares the Egyptian system to be the most credible on account of their longer tradition and proven reliability); but he includes this scheme because the ancient document supposedly relates a benefit that the Egyptian terms lack: 'a natural and consistent explanation of their order and number'.³⁸ Unfortunately Ptolemy's own description of what this *natural/consistent/harmonious/rational* order is lacks clarity, possibly because Ptolemy assumed a level of understanding amongst his contemporaries that modern researchers have lost. But that consistency of principle must exist, since it is the only real point of merit

³⁷ Schmidt, p.42. The Robbins edition reads (I.42, p.103) 'Recently, however, we have come upon an ancient manuscript, much damaged, ... The book was very lengthy in expression and excessive in demonstration, and its damaged state made it hard to read, so that I could barely gain an idea of its general purport; that too, in spite of the help offered by the tabulation of the terms, better preserved because they were placed at the end of the book' (*i.e.*, tabulated at the inside end of a manuscript which was preserved in a roll).

I do not find the argument which is sometimes intimated, that Ptolemy fabricated the existence of the ancient manuscript in order to create his own table of terms, to be a credible one. It projects upon Ptolemy a motivation to invent astrological technique which is demonstrably contradicted by his general approach towards this subject, and his broader objectives as a highly reputable astronomer and scholar of science.

³⁸ Robbins, p.103. Schmidt (p.42) has 'a natural and harmonious account of the order and number of the boundaries'; Ashmand (p.34) has 'a rational and consistent account of the nature of the terms, of the order of which they are to be taken, and the quantity belonging to each'.

upon which Ptolemy deemed the alternative arrangement worthy of record.

It will help to review what Ptolemy explains of the **Chaldean terms**, which are based on a very simple and consistent logic, and dependent only on the planetary rulership of the triplicities. Since the Sun and Moon are denied governorship of the terms,³⁹ their omission from the principle rulership of the triplicity scheme results in the following associations:

³⁹ Some authors mention that the Sun and Moon gain the equivalent dignity to term-rulership when the Sun is between the beginning of Leo and the end of Capricorn, and the Moon between the beginning of Aquarius and the end of Cancer. The 10th century astrologer Alcabitus writes of this in his *Introduction*:

...half of the circle from the beginning of Leo to the end of Capricorn is also called the greater half, and this is the half of the Sun, because the same kind of lordship that planets have in their terms, belongs to the Sun in the whole of this half; the half from the beginning of Aquarius to the end of Cancer is called the smaller half, and this is the half of the Moon, because in the whole of this half also the Moon has the same kind of lordship as the Sun has in the greater half. *The Introduction to Astrology*, tr. Burnett, Yamamoto, Yano (London, 2004); pp.21-23.

Bonatti (quoting Alcabitus) refers to these hemispheres as the 'lunar half' and the 'solar half', stating that the luminaries have the same virtues in these hemispheres as the planets do in their terms (*Liber Astronomiae* I.II.iii). Ptolemy also mentions the affinity between the luminaries and these hemispheres at *Tetrabiblos* I.17, but without association with the term-rulership.

Also, whilst the Sun and Moon are excluded from the schemes recorded by Ptolemy, Vettius Valens records details of two older methods of dividing the terms which make use of one or both of the luminaries. One method (*Anthology*, III.6; see fig I below) reveals similar ordering to that of the Chaldean system but incorporates the Sun and Moon, and so has seven terms for each sign rather than five. Another (*Anthology*, VIII, end; see fig ii below) utilises all the planets except the Moon, and so divides each sign into six sets of terms. Valens credits this system to the shadowy figure of Critodemus, whose dating is uncertain, having been established only as older than the first century work of Pliny (who mentions him as an authority for his *Natural History*, Books II and VII). Despite recording details of these alternatives, Valens leaves no evidence of using either of them – both in his chart examples and where he details the meanings of the terms in the *Anthology* Book I, he adheres to the Egyptian system.

Fig i: Order of the terms variant described by Valens, book III.

Fire triplicity by day	☉	♃	♀	☾	♄	♁	♂
Fire triplicity by night	♃	☉	☾	♀	♁	♄	♂

The other triplicities follow the same pattern and planetary order, exchanging the order of the principle triplicity rulers by day or night, but with each triplicity commencing with its own ruler; *i.e.*, earth commences with Venus by day, Moon by night; air commences with Saturn by day, Mercury by night, water commences with Mars by day or night (illustrating that the designation of Mars as the principle ruler of the water triplicity by both day and night was not originated by Ptolemy).

Fig ii: Order of the terms variant described by Valens, book VIII (according to Critodemus)

♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
☉	♀	♁	♄	♂	☉	♂	♃	♁	♄	♁	♀
♀	♁	♄	♂	☉	♂	♃	♁	♄	♁	♀	♁
♁	♄	♁	♂	♀	♁	♄	♁	♁	♁	♁	♁
♁	♁	♀	♁	♄	♁	♁	♁	♁	♁	♁	♁

The fragmentary remains of the system attributed to Critodemus (described by Valens, VIII) are examined and reconstructed by David Pingree in *The Yavanajataka*, II, (Harvard University Press, 1978) pp.212-3. He

Aries, Leo, Sagittarius	(fire)	- Jupiter
Taurus, Virgo, Capricorn	(earth)	- Venus
Gemini, Libra, Aquarius	(air)	- Saturn, Mercury
Cancer, Scorpio, Pisces	(water)	- Mars

This order – ♈ › ♀ › ♎ › ♃ › ♂ – is used through all the signs of the Chaldean terms, and changes only occur in the commencement of the sequence (with the first terms always allocated to the planet associated with the sign through triplicity rulership). For example, the first terms of Aries are allocated to Jupiter (its triplicity ruler), the second set is allocated to Venus (triplicity ruler of Taurus, subsequent sign), the third to Saturn, the fourth to Mercury (the two rulers of Gemini), and the fifth to Mars (triplicity ruler of Cancer). Since the pattern is repeated through the triplicities, this order also serves for Leo and Sagittarius. In Taurus the order commences with Venus instead of Jupiter, and follows on by the same logic. The only complexity in the arrangement is that the order between Saturn and Mercury alternates by day and night, so there are differences in the arrangement of some of the terms according to whether the chart is diurnal or nocturnal. The number of each set of terms is also very simply designed, with the first set of terms spanning 8°, and a loss of 1° for each subsequent group, resulting in the assignation: 8 + 7 + 6 + 5 + 4 = 30.

Ptolemy commends the simplicity of this system, but considers it disadvantaged by the somewhat artificial association between the planets and the areas they rule. There is indifference as to whether each area is appropriately associated with a malefic, benefic, or suitably dignified planet – they fall where they will – and a greater disadvantage is that throughout the table the total number of terms allocated to each planet differs substantially from that of the Egyptian system. For example, in a diurnal chart Saturn rules a total of 78° in this table,⁴⁰ more than any other planet, as opposed to the 57° it always rules in the Egyptian system, which is less than any other planet.

writes: ‘a definite pattern was consistently followed: the planets (excluding the Moon) are listed in descending (Aries to Virgo) or ascending (Libra to Pisces) order; the first planet in each sign is the second planet of the preceding sign; and the first planet in Aries is the Sun’. The lengths of the terms are uncertain; Pingree speculates that each planet may have spanned 5° of rulership but this is unsupported by evidence.

Pingree also details an Indian system of terms, which finds no comparison to anything found in Greek or Latin texts, but which is described in *The Yavanajataka*, which is believed to have been compiled around 150 BC, supposedly based upon Greek knowledge (the Sanscrit title means ‘saying (*Jataka*) of the Greeks (*Yavanas*)’). The ordering and numeration of this system of terms is as follows:

For masculine signs		For feminine signs	
› 5°	♂	› 5°	♀
› 10°	♎	› 10°	♃
› 18°	♈	› 18°	♈
› 25°	♃	› 25°	♎
› 30°	♀	› 30°	♂

⁴⁰ In a nocturnal chart Saturn rules 66°. The other planetary totals are: ♈ 72; ♂ 69; ♀ 75; ♃ 66 (day), 78 (night).

Fig. 9: The Chaldean Terms

By Day						By Night					
	8	7	6	5	4		8	7	6	5	4
♃	♂	♀	♁	♂	♂	♃	♂	♀	♁	♁	♂
♄	♀	♁	♁	♂	♂	♄	♀	♁	♁	♂	♂
♅	♁	♁	♂	♂	♀	♅	♁	♁	♂	♂	♀
♆	♂	♂	♀	♁	♁	♆	♂	♂	♀	♁	♁
♇	♂	♀	♁	♁	♂	♇	♂	♀	♁	♁	♂
♈	♁	♁	♂	♂	♀	♈	♁	♁	♂	♂	♀
♉	♁	♁	♂	♂	♂	♉	♁	♁	♂	♂	♀
♊	♁	♁	♂	♂	♂	♊	♁	♁	♂	♂	♀
♋	♁	♁	♂	♂	♂	♋	♁	♁	♂	♂	♀
♌	♁	♁	♂	♂	♂	♌	♁	♁	♂	♂	♀
♍	♁	♁	♂	♂	♂	♍	♁	♁	♂	♂	♀
♎	♁	♁	♂	♂	♂	♎	♁	♁	♂	♂	♀
♏	♁	♁	♂	♂	♂	♏	♁	♁	♂	♂	♀
♐	♁	♁	♂	♂	♂	♐	♁	♁	♂	♂	♀
♑	♁	♁	♂	♂	♂	♑	♁	♁	♂	♂	♀
♒	♁	♁	♂	♂	♂	♒	♁	♁	♂	♂	♀
♓	♁	♁	♂	♂	♂	♓	♁	♁	♂	♂	♀

As a native of Alexandria, surrounded by the influences of Egyptian astrologers, this was a difficult matter for Ptolemy to overlook. In classical astrology the total number of terms for each planet is integrated into the techniques used to establish life-expectancy, and the Egyptian term-totals generate the ‘final years’ for each of the planets,⁴¹ known as the ‘greater years’ in medieval and renaissance astrology, where they set the expectancy for the years of life when the planet in question is well situated.⁴² These oft-repeated totals, derived from the Egyptian terms and demonstrating sensitivity to both the speed and natural qualities of each planet, are as follows:

$$\♁-57 \mid \♂-79 \mid \♂-66 \mid \♀-82 \mid \♁-76 \text{ (total: 360)}$$

We need to keep this point in mind. Ptolemy dismissed the value of the Chaldean arrangement because it disagreed with the Egyptian term totals which had been proven by experience: ‘... those in the Egyptian manner have more credibility ... because in the Egyptian writers their totals have been deemed worth recording as being useful’.⁴³ Yet Ptolemy was prepared to record the alternative arrangement found in the ancient manuscript on account of ‘the number of the totals being found to be in agreement with the record of the ancients’.⁴⁴ Hence any table of Ptolemaic terms that records different planetary totals to those found in the Egyptian system must contain some error of numeration. This offers support for the values proposed by Robbins and the first options of the *Paraphrase*, and the tables of Boll-Boer, Schmidt and Hübner. The *Commentary* is close but results in an extra degree given to Jupiter and taken from Mars.⁴⁵ The terms recorded by Hephaistio are similarly close, with an extra degree allocated to Mars and taken from Venus, although the variants proposed by Plato de Tivoli and Bonatus drift further from the totals in the places where they disagree with Hephaistio’s original text.

⁴¹ See for example Valens, *Anthology*, IV.6 and Paulus Alexandrinus, *Introductory Matters*, 3.

⁴² William Lilly explains their use in the example of Saturn ‘... if in ones Nativity Saturne is well dignified, is Lord of the Geniture, &c. then according to nature he may live 57 years’ (*CA*, p.61).

⁴³ Schmidt, p.41.

⁴⁴ *Ibid.*, p.41.

⁴⁵ The tables of Cardan, Junctinus and Al Biruni are blighted by obvious errors in the numeration.

Although Ptolemy outlined the Chaldean system of term rulership, his commentary illustrates that he did not consider it a serious contender in practical application. As readily as this table is presented its importance is dismissed, but its inclusion has allowed insight into two potentially important considerations. The first is that Ptolemy values more than simplicity of design or consistency of principle in the arrangement – it is important to retain the total term values that are widely accepted by tradition and approved of by his contemporaries. The second is that a precedent has been revealed to show that the designation of term rulership can flow through sequential consideration of the signs. That is, the first term ruler of any sign is taken from the planet that has the best claim to dignity within that sign; the second term ruler is taken from the planet that has the best claim to dignity in the following sign, and so on. A similar approach will be seen to be utilised in the arrangement of the Ptolemaic terms, although incorporating the additional values of exaltation and sign rulership.

The Egyptian terms, as far as Ptolemy is concerned, are not only more commendable because of the value of their totals, but also because they are ‘adduced by the majority ...adduced by many as trustworthy because of immemorial tradition’.⁴⁶ Unfortunately this table of terms as known by Ptolemy and his contemporaries defeats all of Ptolemy’s attempts to identify clear principles of construction. It is evident that the table recognises some system of priority based on familiarity by governorship, and Ptolemy surmises that priority has been partly given to the rulers of the signs, partly to the rulers of triplicity and partly to the rulers of exaltation. Ptolemy’s primary intention in writing the *Tetrabiblos* was to give a natural and logical account of astrological technique, and his frustration at being unable to rationally explain this enigmatic issue becomes palpable where he asks:

...if it is true that they have followed the houses, why have they assigned precedence to Saturn, say, in Libra, and not to Venus, and why to Jupiter in Aries and not to Mars? And if they follow the triplicities, why have they given Mercury, and not Venus, first place in Capricorn? Or if it be exaltations, why give Mars, and not Jupiter, precedence in Cancer; and if they have regard for the planets that have the greatest number of these qualifications, why have they given first place in Aquarius to Mercury, who has only his triplicity there, and not to Saturn, for it is both the house and the triplicity of Saturn? Or why have they given Mercury first place in Capricorn at all, since he has no relation of government to the sign?⁴⁷

These questions remain unanswered, but perhaps a clearer understanding of the logic built into the alternative table that Ptolemy presents will move us closer to resolving them.

⁴⁶ Schmidt, pp.39-40. The earliest documentary Greek horoscope mentioning the terms is P. Oxy. II 307 (46 AD; *Greek Horoscopes* #46). The earliest reference in a literary Greek horoscope is in writings of Antigonos of Nicaea (c.150), who mentions all the terms in a chart dated to 40 AD. Various authors have suggested that they derive from the techniques of Nechepso and Petosiris, which seems likely but remains unproven.

⁴⁷ Robbins, p.93.

Since Ptolemy has no clear understanding of the order of the planets in the Egyptian system of terms, it follows that he cannot understand the rationale for their numbers either. But it is clear that the numbers are not simply determined by the order of the placement of the terms, as in the Chaldean system, but are varying in some way that is connected to the benefic qualities of the planet involved and its claim to dignity within that area. The Egyptian terms presented are thus:

Fig. 10: The Egyptian terms

S	1		2		3		4		5	
♈	♁	6	♀	6 (12)	♃	8 (20)	♂	5 (25)	♄	5 (30)
♉	♀	8	♃	6 (14)	♁	8 (22)	♄	5 (27)	♂	3 (30)
♊	♃	6	♁	6 (12)	♀	5 (17)	♂	7 (24)	♄	6 (30)
♋	♂	7	♀	6 (13)	♃	6 (19)	♁	7 (26)	♄	4 (30)
♌	♁	6	♀	5 (11)	♄	7 (18)	♃	6 (24)	♂	6 (30)
♍	♃	7	♀	10 (17)	♁	4 (21)	♂	7 (28)	♄	2 (30)
♎	♄	6	♃	8 (14)	♁	7 (21)	♀	7 (28)	♂	2 (30)
♏	♂	7	♀	4 (11)	♃	8 (19)	♁	5 (24)	♄	6 (30)
♐	♁	12	♀	5 (17)	♃	4 (21)	♄	5 (26)	♂	4 (30)
♑	♃	7	♁	7 (14)	♀	8 (22)	♄	4 (26)	♂	4 (30)
♒	♃	7	♀	6 (13)	♁	7 (20)	♂	5 (25)	♄	5 (30)
♓	♀	12	♁	4 (16)	♃	3 (19)	♂	9 (28)	♄	2 (30)

It is worth noting how much agreement there has been in the reproduction of this table. All of the English and critical editions of the *Tetrabiblos* have it as it is presented here, as do Neugebauer and Van-Hoesen in *Greek Horoscopes*. I have seen this sequence and number accurately reproduced in the works of Critodemus,⁴⁸ Dorotheus,⁴⁹ Valens,⁵⁰ Hephaistio,⁵¹ Paulus Alexandrinus,⁵² Firmicus,⁵³ Abu Ma'shar,⁵⁴ Alchabitius,⁵⁵ Al-Biruni,⁵⁶ Plato de Tivoli,⁵⁷ Ibn Ezra⁵⁸ Dariot,⁵⁹ and Allatius.⁶⁰ So far, the only slight discrepancies I have

⁴⁸ *Astrological Records of the Early Sages in Greek*, tr. R. Schmidt, ed. R. Hand, Berkeley Springs 1995; 'Effects of the Bounds from Critodemus', pp.53-57.

⁴⁹ *Carmen Astrologicum*, tr. D. Pingree, Leipzig 1976; appendix II, p.431.

⁵⁰ *Anthology*, I.3. Valens does not include reference to the Ptolemaic terms.

⁵¹ *Fragmenta e Hephaestionis*, pp.427-431. There are several obvious errors in Robert Schmidt's translation of the Egyptian terms for Sagittarius as recorded in his *Apotelesmatic Book I*, p.19.

⁵² *Introductory Matters*, tr. R. Schmidt, Berkeley Springs 1993; 3. Paulus does not include reference to the Ptolemaic terms.

⁵³ *Mathesis*, tr. J.R. Bram, New Jersey 1975; II.VI. Firmicus does not include reference to the Ptolemaic terms.

⁵⁴ *The Abbreviation of the Introduction to Astrology*, tr. C. Burnett, Virginia 1994; 7.10. Abu Ma'shar refers to these as 'The terms according to the Medes' and does not include reference to the Ptolemaic terms.

⁵⁵ *Introduction to the Art of Judgments of the Stars*, tr. John of Saxony, Paris 1331. Alchabitius does not include reference to the Ptolemaic terms.

⁵⁶ Al-Biruni, 452. Al Biruni includes both Egyptian and Ptolemaic terms.

⁵⁷ *Quadripartitum I*. Page 18 of the pdf file referenced in footnote 36.

⁵⁸ *The Beginning of Wisdom*, tr. R. Levy and F. Cantera, Baltimore 1939; chap.2. Ezra includes both Egyptian and Ptolemaic terms.

found have been in medieval works that followed the translation of the *Tetrabiblos* produced by Camerarius, which held two obvious typos.⁶¹ The consistency by which these Egyptian terms have been reproduced is an argument that the inconsistencies that appear in the representations of the Ptolemaic terms should not be treated as inattention to detail on the part of the transcribers, but more likely the result of confusion in early sources. This also explains the popularity and importance of the additional commentaries such as that attributed to Proclus.

The 'Ptolemaic terms'

Despite his assertion of the natural and consistent order, it is not clear that even Ptolemy fully understood the principles of the alternative arrangement he presented, since he says of the ancient manuscript in his possession:

The book was very lengthy in expression and excessive in demonstration, and its damaged state made it hard to read, so I could barely gain an idea of its general purport; that too, in spite of the help offered by the tabulations of the terms, better preserved because they were placed at the end of the book⁶²

Nevertheless, Ptolemy attempts to present the 'general scheme' of their arrangement. In order to clarify the logic, I have re-ordered and slightly edited Ptolemy's subsequent passage (following Robbins: his passage is entirely reproduced in the footnote below):⁶³

Since terms are not allotted to the luminaries, Cancer and Leo, the houses of the Sun and Moon, are assigned to the maleficent planets because they were deprived of their share in the order, Cancer to Mars and Leo to Saturn; in these the order appropriate to them is preserved.

As the planetary rulers of Cancer and Leo do not participate in the scheme, these signs are viewed as detrimented and associated with the malefics. The reference to the preservation of the appropriate order might suggest that the alignment is based upon sect

⁵⁹ *A Brief and Most Easie Introduction to the Judgement of the Stars*, tr. F. Withers 1583; chap. 3. Dariot does not include reference to the Ptolemaic terms.

⁶⁰ *Procli Paraphrasis*, p.72.

⁶¹ Camerarius attributed 7° to Venus in Capricorn (instead of 8°) and 5° to Mars in Capricorn (instead of 4°). This was copied by Junctinus and Cardan. He also reversed the positions of Jupiter and Saturn in Taurus so that the 3rd place (8°) is held by Saturn and the 4th place (5°) is held by Jupiter. This was copied by Junctinus but corrected by Cardan. It seems sensible to consider these deviations errors in production since they result in different totals to those so frequently reported.

⁶² Robbins, p.103.

⁶³ *Ibid*, pp.103-105: 'For their arrangement within each sign, the exaltations, triplicities, and houses are taken into consideration. For, generally speaking, the star that has two rulerships of this sort in the same sign is placed first, even though it may be maleficent. But wherever this condition does not exist, the maleficent planets are always put last, and the lords of the exaltation first, the lords of the triplicity next, and then those of the house, following the order of the signs. And again in order, those that have two lordships each are preferred to the one which has but one in the same sign. Since terms are not allotted to the luminaries, however, Cancer and Leo, the houses of the sun and moon, are assigned to the maleficent planets because they were deprived of their share in the order, Cancer to Mars and Leo to Saturn; in these the order appropriate to them is preserved'.

(Mars, a nocturnal planet is associated with the house of the nocturnal luminary and Saturn, diurnal, the house of the diurnal luminary). The *Commentary*, and most subsequent translations of the text, have assumed this to mean that the malefics simply take rulership of the first set of terms for Cancer and Leo, but Ptolemy does not state this – he only says that the *houses* of the Sun and Moon are assigned to the malefics.⁶⁴ This is a highly pertinent point, the importance of which I return to when considering why Hephaistio would give the first set of terms in Leo to Jupiter instead of Saturn; but for now we will set that point aside and accept the usual interpretation, that Mars governs the first set of terms in Cancer and Saturn those of Leo, so that we can follow the reasoning contained in the *Commentary*. The next principle allows us to determine the first term-ruler for the remaining signs:

...the exaltations, triplicities, and houses are taken into consideration... the lords of the exaltation first, the lords of the triplicity next, and then those of the house... the planet that has two rulerships of this sort in the same sign is placed first, even though it may be malefic. But wherever this condition does not exist, the malefic planets are always put last.

Having explored numerous options to establish which triplicity-rulers should be taken into consideration, it seems clear – both from the areas of consistency in all tables, and from the implications of the *Proclus' Paraphrase* – that they are those presented by Ptolemy in his preceding chapter, as shown in the table below.⁶⁵ After disqualifying the luminaries from taking part in the scheme, the priority of rulership is as follows:

Fig. 11: Rulerships considered in determining the Terms

Sign	1. Exaltation	2. Trip. (day) <i>or</i>	2. Trip (night)	3. House (Sign)
♈			♃	♂
♉		♀		♀
♊		♃	♀	♀
♋	♃	♂	♀	
♌			♃	
♍	♀	♀		♀
♎	♃	♃	♀	♀
♏		♂	♀	♂
♐			♃	♃
♑	♂	♀		♃
♒		♃	♀	♃
♓	♀	♂	♀	♃

⁶⁴ Dorian Greenbaum's translation of this statement, following the Greek text in Hübner (p. 78.1149-54), reads: 'However, since bounds [terms] are not given to the luminaries, Cancer and Leo, being the houses of the Sun and Moon, are assigned to the malefics on account of being surpassed in the order, Cancer to the [star] of Ares and Leo to the [star] of Kronos, in which [signs] the order appropriate to them is preserved'.

⁶⁵ This may seem obvious, but since Ptolemy was working in the district of Alexandria, and since he describes his manuscript as ancient, it is possible that the arrangement incorporates some use of the 'Egyptian' three triplicity-ruler scheme but, having exhausted all options, this does not appear to be the case. I considered whether there might be some alteration in weighting or priority, for example according to whether a nocturnal ruler was considered within a masculine sign (or vice versa), but again this was disproved by the sequences that are not subject to controversy.

If a planet has two claims to dignity in one sign, it automatically rules the first term in that sign. This rule only applies to malefics when establishing the first term ruler however; if they fail to qualify for that position the malefics must be placed at the end of the signs, (which suits their nature as the ends of the signs are generally considered more unfortunate in influence. Hence the middle terms are not associated with the malefics, and where the malefics rule the first set of terms, it is *only* where they are very strongly dignified.) The planets that rule the first set of terms on account of double-dignity are:

♈	♀	(triplicity, sign)
♈	♀	(triplicity, sign)
♈	♀	(exaltation, sign)
♈	♃	(exaltation, triplicity)
♈	♂	(triplicity, sign)
♈	♃	(triplicity, sign)
♈	♃	(triplicity, sign)
♈	♀	(exaltation, triplicity)

This leaves Aries and Capricorn. Where no planet has double-dignity within the sign, we use the ruler by exaltation, triplicity, and sign in that order of priority. For Aries the Sun as exaltation ruler is disqualified so we chose Jupiter (triplicity ruler) over Mars (sign-ruler). Mars would be disqualified anyway, by the rule that a naturally malefic planet can only govern the first set of terms if it has two claims to dignity. Mars is similarly overlooked in Capricorn, despite the fact that exaltation is the preferred dignity, because one dignity is not enough to allow a malefic planet to take the first place. The first place goes instead to Venus, the ruler of Capricorn by triplicity.

The first term-rulers of each sign are therefore established. And since we know that where a malefic does not rule the first set of terms it must rule the last set, we can also establish the end term-rulers for those signs which commence with one of the malefics:

Sign	1st term	2nd term	3rd term	4th term
♈	♃			
♈	♀			
♈	♀			
♈	♂			♃
♈	♃			♂
♈	♀			
♈	♃			♂
♈	♂			♃
♈	♃			
♈	♀			
♈	♃			♂
♈	♀			

Fig. 12: Establishing first term rulers (and end terms for signs leading with malefics)

The rule for deciding the subsequent sets of term-rulers is obscure in the Robbins translation, and although Robert Schmidt points this out, his translation is equally cryptic. I am therefore using Dorian Greenbaum's translation of the Greek text in the Hübner edition, which Professor Hübner has verified as accurate. We are told to follow the same

principle ‘...in the subsequent order of the signs, again, for those having two rulerships apiece, place [them] in front of the one having one [rulership] in the same sign’.⁶⁶

This is a critical comment for determining the order of the arrangement, but it allows for two possible interpretations. Discounting the malefics (which we know must come last where they cannot come first) the first interpretation (Approach A)⁶⁷ would repeat the same process in the following sign and take the planet best placed in the second sign to rule the second set of terms in the first – just as in the Chaldean system where the term-rulers are derived by moving sequentially through the signs. And again, where a planet in the next sign has two claims to dignity, it overcomes any planet with only one dignity, so that the order of priority is:

- | | |
|-----------------------------------------|-------------------------|
| <i>Discount malefics and the planet</i> | 1) double-dignity-ruler |
| <i>already used, then select:</i> | 2) exaltation-ruler |
| | 3) triplicity-ruler |
| | 4) sign-ruler |

Hence, in Aries the 1st terms are governed by Jupiter (most qualified in Aries); the 2nd terms by Venus (most qualified in Taurus) and the 3rd terms by Mercury (most qualified in Gemini). If we carry on to the next sign, Cancer, Mars would be the most qualified to govern the 4th place because it has dignity by triplicity, leaving only Saturn to govern the final terms (to which all tables agree).

Although this is the interpretation that the *‘Proclus’ Commentary* adopts, it relays an additional rule that is not explicit in Ptolemy’s text,⁶⁸ stating that we do not move sequentially beyond the next two signs (*i.e.*, for Aries, we only move on through Taurus and Gemini). After that, the remaining places are determined by the best claim to dignity within the sign in question or the group of three signs considered. By this method, having obtained our first three term rulers in Aries as Jupiter, Venus, Mercury, we consider which of Mars or Saturn has the best claim to dignity in Aries (or if neither has dignity in Aries, then Taurus and Gemini). In Aries Mars has the best claim as the ruler of the sign, so it is for this reason that Mars governs the 4th set and Saturn rules the 5th.

The extract below is taken from Robert Hand’s translation of the *Commentary*, to show how the terms of Aries are decided. I have edited this slightly to remove references to the allocation of degrees (considered later), and so to keep the principle of the arrangement clear.

⁶⁶ *Tetr.* I, 21, 22-24, Hübner p.78.1143-54. Schmidt, (p.42) has ‘again with those having two rulerships upward in the next [zoidion] being placed ahead of the one having a single rulership in the same zoidion’. In his accompanying footnote, Robert Schmidt underlines the importance of the word ‘upward’ as meaning ‘upcoming in the order exaltation, trigon, house’, but Greenbaum points out that the word ‘ana’ upon which it is based, is defined in the lexicon as ‘each’ or ‘apiece’ when used with numerals, as it is here. Professor Hübner concurs and this also finds agreement with Robbins who has ‘And again in order, those that have two lordships each are preferred to the one which has but one in the same sign’ (p.105).

⁶⁷ For ‘Approach B’ see below p.25.

⁶⁸ It is however intimated in the instruction for determining the number of degrees, where Ptolemy says to consider the sign in question and the other adjacent signs in its quadrant (Robbins, p.105: ‘As for the number of the terms, when no star is found with two prerogatives, either in the sign itself, or in those which follow it within the quadrant...’).

In this sign I seek which planets have relations. I find Mars and Jupiter. For Aries is the domicile of Mars and the triplicity of Jupiter. But because Jupiter is a benefic and the ruler of the triplicity, and triplicity overcomes the dignity of domicile, Jupiter will take the first position. I seek in Taurus and I find that Venus has two relations, that of triplicity and domicile, she is placed in the second position ... Again employing the same method I come to Gemini. I seek the planet that has a relation in Gemini, and I find that Mercury in Gemini has two relations. ... Then I return to Aries. (One is not permitted to pass quickly over a group of three signs, because all of the ascensional times depend on signs in groups of three which must be considered in this inquiry.) I find that Mars has one relation ... Saturn remains.

If we follow these principles through and retain the rule of the *Commentary* (that we do not move beyond the group of three signs), then we can see how – for the most part – it creates the arrangement followed by Al Biruni, Camerarius, Junctinus, Cardan and Lilly.

Taurus starts with Venus, takes Mercury from Gemini and Jupiter (exaltation ruler) from Cancer [see fig. 11, p.21, reproduced in abbreviated form in the left margin below]. Then we return to Taurus to consider the placement of Saturn and Mars; neither planet has dignity in Taurus but Saturn has triplicity-rulership in Gemini and Mars has triplicity-rulership in Cancer. Gemini precedes Cancer so Saturn takes the 4th place and Mars takes the last.

Gemini starts with Mercury and takes Jupiter from Cancer. There is no remaining planet to be taken from Leo but we know that Venus comes next in order to precede the malefics (it follows Jupiter anyway as a triplicity ruler in Cancer). Next we evaluate the malefics: Saturn has dignity by triplicity in Gemini and so will take the 4th place, leaving Mars, which only has dignity by triplicity in Cancer, to take the 5th place. The *Commentary* writes on this:

I assign 7° to Mercury which has two relations in Gemini: domicile and triplicity. Then [going] in order to Cancer, I find that Venus has triplicity and Jupiter exaltation in that sign. Therefore, I assign 7° to Jupiter and 7° to Venus. Moving on to Leo, I find that Jupiter has at least triplicity, but he has already received [his share.] Therefore, reverting to Gemini, I find Saturn [as triplicity lord], and I give him 4° and Mars 5° because he has triplicity in Cancer.

So by the logic of this approach, and according to the instruction in the *Commentary*, the Gemini terms are settled: they end with Saturn and then Mars as Lilly had it, not the other way around as the recent critical editions of the *Tetrabiblos* have it.

Unfortunately however, the reasoning of the *Commentary*, although persuasive in being able to explain most of the table, is not entirely consistent. Consider how the arrangement of Aquarius ought to run according to this logic:

Saturn takes first place on account of its double dignity in Aquarius; Venus has double dignity in Pisces and so takes 2nd place; Jupiter has the best dignity in Aries (triplicity) and so takes 3rd place; leaving Mercury, which has dignity in Aquarius to take the 4th place, and malefic Mars to take the last, thus: ♄ , ♀ , ♃ , ☿ , ♂ . But no table of terms records this order. The Aquarian terms are consistent across all sources and run: ♄ , ☿ , ♀ , ♃ , ♂ . There is no explanation for this according to the interpreted rules given in the *Commentary*.

		T.	
	E.	d.	n.
♈		♃	♃
♉	♀		♀
♊	♄	♃	♃
♋	♃	♃	♃
♌		♃	
♍	♃	♃	♃
♎	♃	♃	♃
♏	♃	♃	♃
♐	♃	♃	♃
♑	♃	♃	♃
♒	♃	♃	♃
♓	♃	♃	♃

There is, however, a sense of logic in the order. After Saturn, Mercury is the only other planet to have dignity in Aquarius. Although Saturn has a double-dignity and so receives rulership of the first term of the sign, Mercury's remaining claim to dignity in Aquarius gives it priority over all other planets. This interpretation assumes that the greater dignity of Venus in Pisces would not supersede the influence of Mercury (which has dignity within Aquarius) *unless* Venus also had some form of dignity in Aquarius. In other words, where there are neutral or benefic planets that have dignity within the present sign, we attribute terms to these first, before moving to the best placed planet in the following sign. Despite giving us what appears to have been a clear statement of principle so far (Approach A), the *Commentary* abandons its earlier logic to demonstrate this alternate approach for Aquarius (I shall refer to this as Approach B). The anonymous author writes of this sign:

Moving on to Aquarius, I put Saturn first and assign to him the first in order, giving him 6°. Then after him Mercury 6° because he has triplicity in this sign, and to Venus I give 8° because of her exaltation and triplicity in Pisces. In the fourth position I give Jupiter 5° because additions were made to Saturn and Venus. Last, to Mars I give the five remaining degrees.

The *Commentary* is fundamentally flawed in offering two alternative approaches, neither of which is capable of justifying the arrangement of all of its signs. Approach A, as we have seen, fails with Aquarius. Consider how the two alternative approaches work out for Libra.

For both approaches Saturn takes first place on account of its double-dignity in Libra, forcing Mars into the end position. Approach A would dismiss the remaining planets with dignity in Libra (Mercury and Venus), taking Venus from Scorpio for the 2nd set of terms, Jupiter from Sagittarius for the 3rd, and then returning to Libra to prioritise the remaining planets. Mercury has triplicity rulership in Libra so it comes next (it would do so anyway since Mars, as a malefic, must be placed at the end); the result is: ♄ › ♀ › ♃ › ♁ › ☿. This is the order that is recorded by the *Commentary*. In fact the narrative of the *Commentary* is clear in showing that the procedure I have outlined is indeed the approach that is used.⁶⁹

If we apply Approach B to Libra then we would give the first place to Saturn, but we would recognise that Mercury and Venus also have dignity in Libra, so must be placed next, before moving on to any other planets. Although triplicity rulership is preferable to sign rulership, Venus has the best claim to dignity in the following sign and so of the two receives priority, allowing Venus to follow Saturn, to be followed in turn by Mercury. At this stage we move on to the subsequent signs. The only qualifying planet from Scorpio has already been placed, so we continue on to Sagittarius and take Jupiter (we would do so anyway as it is the remaining benefic). Finally we allocate the remaining place to Mars. The result is: ♄ › ♀ › ☿ › ♃ › ☿.

⁶⁹ Robert Hand's translation of the text in the *Commentary* reads: 'I come to Libra in which I find the exaltation and triplicity of Saturn. To Saturn therefore I assign 6°. To Venus which has triplicity in Scorpio 5°, for a subtraction is made from Venus, and single degrees are added to Saturn, Mars, and Jupiter. [This is done in the case of] Jupiter because of Sagittarius. In this sign in which Jupiter has domicile and triplicity, he takes 8°. Then going back I find that Mercury has a relation of triplicity and I assign to him 5° and the remaining degrees to Mars'.

Approach A does not work for the Aquarian terms listed in the *Commentary*, but Approach B does not work for the arrangement it claims for Libra. The *Commentary* changes its logic without any explanation of why *here* and not *there*. This is hardly natural and definitely not consistent. There is no way to recreate the table offered by the *Commentary* according to its stated principles, unless we first know the results we are aiming for and fudge our reasoning accordingly. The only thing this proves is that the *Commentary* fails to give the reliable account of the table's logic, despite its claims to do so.

However, Approach B, whilst it conflicts with the results given for Libra in the *Commentary*, does yield the order given for Libra by Hephaistio and the sources who follow him. It also generates the result recorded as the first option values by the *Paraphrase*, (allowing us to now recognise that the smaller figures which are tabulated as alternative options offer the results that would derive from Approach A). Hence, the *Paraphrase* editions appear unsure as to whether Mercury or Jupiter should take 3rd place here – two alternative methods of determining the rulerships have been demonstrated, and it depends upon which of these we apply.

ΖΥΓΟΝ		
h	s	s
ρ	ε	ια
ϣζ	ε ^h	ι ^h 15
ζϣ	ε ^h	ικα
♂	s	λ

LIBRA		
♃	6	6
♀	5	11
♃♀	5 ⁸	16 ¹⁹
♀♃	8 ⁵	24
♂	6	30

Fig. 13: The terms of Libra as recorded in the oldest edition of the *Paraphrase*. It is interesting to compare this image with the detail for Libra in Leo Allatius' 17th century transcription (fig.3 on p.5) which follows this representation very closely, yet failed to convey its emphasis on preferred and alternate rulers in its own influence upon the 19th century English translations of Ashmand, Wilson, Cooper, etc.

Since the *Commentary* is not fully reliable, it is effectively useless as a rule, and so it should not detract from the value of Approach B that it fails to explain the *Commentary*'s arrangements. We can see that Approach B is a much more robust theory for explaining the Hephaistio table. Adopting this approach, Scorpio would not move from Mars to Jupiter without first incorporating Venus which has dignity in Scorpio – again we can see that the astrologers who follow the Hephaistio template adhere to this. Approach B also offers the only explanation for the Aquarian arrangement, and since *all* authors have agreed upon the order for this sign, we must dismiss any theory that fails to agree with it.

Approach B also justifies the logic in Hephaistio's assignation of Saturn to the 4th place and Mars to the 5th in Capricorn. Mars and Saturn both have dignity in Capricorn and, whilst exaltation takes precedence over sign rulership, the two rulerships that Saturn holds

	E.	d.	n.	S.
♃			21	♂
♂	♀			♀
♄	♃	♀		♀
♅	♃	♂		♀
♆			21	
♇	♀	♀		♀
♈	♃	♃		♀
♉	♂	♀		♂
♊			21	21
♋	♂	♀		♃
♌	♃	♀		♃
♍	♀	♂		21

in the subsequent sign of Aquarius allow it to move forward and precede Mars in Capricorn. The surprising fact is that when the logic of the *Commentary* is closely scrutinised, it does even not support its own values – it lends more favour to the table recorded by Hephaistio, which is generally underestimated because of its areas of clear contradiction with the *Commentary*!

The first terms of Leo: Jupiter or Saturn?

This still leaves the question of why Hephaistio attributed the first set of terms in Leo to Jupiter, when most subsequent sources attribute that position to Saturn? As we have seen, the *Paraphrase* marks Jupiter as the primary candidate for this position, for which reason Robbins is notable as the only recent translator to propose agreement with Hephaistio. Elsewhere, the bewilderment of where to place Jupiter in Leo has appeared in too many texts for it to be dismissed as irrelevant. Plato de Tivoli (and Haly and Bonatus after him) gives Jupiter rulership over the end terms of Leo, in marked contrast to other tables and one of the clearly reported principles in the *Tetrabiblos*: that malefic planets, not benefics, are always allocated to the last terms of a sign. Something seems wrong, as if at some time there was an attempt to 'correct' the rulership of those first terms in Leo, by removing Jupiter from the start of the sign without understanding where it should go instead.

Approach B also fails to explain why Mars takes precedence over Saturn in Gemini. Without the logic of Approach A this seems to make no sense: we know that for the end terms of Gemini we must evaluate the claim of the two malefics within the whole quadrant, but why would Mars, which only has triplicity-rulership in the subsequent sign, take precedence over Saturn which has triplicity-rulership in the current sign? This could only make sense if there were some missing factor by which Mars held double-dignity in Cancer.

But a perfect explanation of both of these anomalies is found if we accept a more literal understanding of the comment which appears in the manuscript of the *Tetrabiblos*: 'the houses of the Sun and Moon, are assigned to the maleficent planets'.⁷⁰ Ptolemy did not state that the *first terms* are assigned to the malefics, but that their *houses* are assigned to them.⁷¹ If we take this to mean that it is the equivalent level of dignity that the Sun and Moon have in these signs, which is handed over to the malefics instead, the revised dignity-values considered in establishing the terms now runs as follows:

⁷⁰ Robbins, p.105.

⁷¹ All manuscripts of the *Tetrabiblos* are clear on this point. Ashmand, in mistranslating this comment as "In Cancer and Leo, however, the malefics occupy the first degrees; as those signs are the houses of the Sun and Moon which take no terms... Mars, consequently, receives the first degrees in Cancer, and Saturn in Leo" has perpetuated a gross misunderstanding. His source (*Procli Paraphrasis*, p.69) reads from the Greek (Greenbaum translation): 'Cancer and Leo, being the houses of the Sun and Moon, since the luminaries do not take bounds, the malefics take them, on account of being surpassed in the order. And so Mars on the one hand takes Cancer, but Saturn on the other takes Leo, whence also the appropriate order is preserved'. The accompanying Latin text reads (my translation): 'Cancer and Leo, because they are the domiciles of the Sun and Moon, and since the luminaries are not distributed amongst the terms, are taken by malefics, which are [then made] more powerful in the arrangement. So Mars claims Cancer for himself, Saturn Leo, whereby the appropriate arrangement is preserved'.

Fig. 14: Revised Rulerships considered in determining the Terms
(with ♂ and ♄ receiving the equivalent dignity of sign-rulership which the ☽ and ☿ normally receive in ♋ and ♌)

Sign	1. Exaltation	2. Trip. (day) or	2. Trip (night)	3. House (Sign)
♈			♃	♂
♉		♀		♀
♊		♄	♀	♀
♋	♃	♂	♀	♂
♌			♃	♄
♍	♀	♀		♀
♎	♄	♄	♀	♀
♏		♂	♀	♂
♐			♃	♃
♑	♂	♀		♄
♒		♄	♀	♄
♓	♀	♂	♀	♃

Mars does not replace the Moon to take priority in Cancer according to some inexplicable ‘switch-over’ rule, but does so according to the principle that any planet with two claim

s to dignity draws first place (which it now has in Cancer: rulership by triplicity and the equivalent dignity of rulership by house). But even with its additional dignity considered, Saturn still has only one claim to rulership in Leo and therefore fails to qualify for the leading position. Hence, in the Hephaistio terms (as in the Egyptian terms) Jupiter retains its position of precedence. This interpretation is proven correct when we consider how the numbers of degrees allocated to each planet are derived (see below). Only this interpretation allows a good match with the results that follow.

And this also explains why Mars should precede Saturn in the terms of Taurus and Gemini according to Approach B. In Taurus neither malefic has dignity, but Saturn has triplicity in Gemini and Mars has double-dignity in Cancer. By the principle that the planet with double dignity in the subsequent sign moves ahead of the one with single dignity in the sign before it, Mars is prioritised over Saturn in both these sets of terms.

So when Approach B is utilised with the reconsidered translation of Ptolemy’s principle on the signs of the luminaries, we can see the logic for almost the entire arrangement of the planetary order in the Hephaistio account of the terms that were supposedly written down by Ptolemy. The only remaining area of unknown logic is why Venus should follow Jupiter in Leo rather than Mercury. But this is one detail that no other author has ever reported – the otherwise unanimous consensus being that Mercury governs the second set of terms. For this reason I believe that this single inconsistent detail probably is revealing a genuine error in transmission, but I leave this as an assumption which can only be verified against other ancient sources as and when they come to light.

	T.		
	E.	d.	n. S.
♈			♃♂
♉	♀		♀
♊	♄	♀	♀
♋	♃	♂	♀
♌			♃
♍	♀	♀	♀
♎	♄	♄	♀
♏	♂	♀	♂
♐			♃♃
♑	♂	♀	♄
♒		♄	♄
♓	♀	♂	♃

Determining the degrees

As for the number of the terms, when no star is found with two prerogatives, either in the sign itself or in those which follow it within the quadrant, there are assigned to each of the beneficent planets, that is, to Jupiter and Venus, 7°; to the maleficent, Saturn and Mars, 5° each; and to Mercury, which is common, 6°; so that the total is 30°. ⁷²

Recall that the total number of terms throughout the zodiac for any planet creates the 'greater year' for each planet, and that this number is used in the consideration of life-expectancy, in such a way that it reflects the planet's natural speed and influential quality. Saturn, the heaviest and slowest moving planet and the greater malefic, obviously has the lowest greater year. Although Jupiter is a slower moving planet than Mars, its benefic qualities extend life expectancy, so it has a higher greater year than Mars. Venus, which is light, fast in movement and benefic, has the highest of all. The degrees attributed to the terms are manipulated in order to generate the appropriate value:

$$\text{♄} - 57 \mid \text{♃} - 79 \mid \text{♅} - 66 \mid \text{♁} - 82 \mid \text{♂} - 76 \mid (\text{total: } 360)$$

All things being equal, 30° split between 5 planets would attribute 6° to each. But the malefics are inimical and the temperate nature of the benefics is life-enhancing, so only neutral Mercury receives the default value of 6°; Saturn and Mars receive 1° less and Jupiter and Venus receive 1° more. The basis for each calculation then is:

$$\text{♃} 7^\circ \mid \text{♁} 7^\circ \mid \text{♂} 6^\circ \mid \text{♅} 5^\circ \mid \text{♄} 5^\circ$$

But since some always have two prerogatives... there is given to each one of those in such condition, whether it be in the same sign or in the following signs within the quadrant, one extra degree... But the degrees added for double prerogatives are taken away from the others, which have but one, and, generally speaking, from Saturn and Jupiter because of their slower motion. ⁷³

It has been difficult for astrologers to verify the logic used to determine the numerical lengths of the terms, because of the two alternate approaches that have been used to establish the arrangement, and because Ptolemy only gives us the rules 'generally speaking'; he has not been specific about the details. But there are some additional rules that are built into the process, some of which are implied in the *Commentary* and others which can be seen to hold up to scrutiny in areas of the table that find the best agreement amongst all authors. They are:

⁷² Robbins, p.105.

⁷³ *Ibid.*

- An additional degree is only given to planets that have 2 areas of dignity within *one* of the signs in the considered quadrant. (Not for example, for a planet that has triplicity in one sign and exaltation in the following sign). Remember that in the Hephaistio values the malefics have assumed the dignity status equivalent to sign-rulers in Cancer and Leo, so that in Cancer Mars has double-dignity for sign and triplicity.
- No planet that qualifies for an additional degree on account of double-dignity should relinquish degrees to another. Also, although planets in exaltation do not gain a degree, we avoid taking degrees away from them.
- Degrees are preferably subtracted from Saturn, but if two extra degrees are required and both Saturn and Jupiter are able to relinquish a degree, we take the first from Saturn and the next from Jupiter. If neither of these is able to relinquish a degree, we take it from the heaviest planet that is able to do so. But in general we aim to subtract from the heaviest planets and avoid taking them from lighter planets unless they are weakened by fall.

The following demonstrates the process following the logic of the 'Hephaistio template' (Approach B), compared against the values of the 'Commentary template'. The results are impressive, but not perfect. Perhaps there is some as yet undiscovered extra rule that would make it so, but for the moment it appears that minor exceptions were made in some signs, purely to yield the term-totals that reflect the greater years.

Aries:

S.	E.	Trip.	H.
♈		♃	♂
♉		♀	♀
♊		♁ ♃	♃

Jupiter has the greatest dignity in the sign and so rules the 1st terms. Only Mars remains with dignity in Aries but as a malefic it is attributed to the end. We move to Taurus and find Venus with two dignities and so qualified to take 2nd place; the 3rd place goes to Mercury with two dignities in Gemini. Of the two malefics, Mars has dignity in Aries by sign and so precedes Saturn. **Numbers:** 1° extra is given to Venus and Mercury because of their dual-dignities in signs within this quadrant. To balance, 1° is subtracted from Saturn, and another from Jupiter:

Order and number should be:

♃ (7-1) 6°	♀ (7+1) 8°	♃ (6+1) 7°	♂ 5°	♁ (5-1) 4°
------------	------------	------------	------	------------

(All of the authors I have examined agree with this.)

Taurus:

S.	E.	Trip.	H.
♉		♀	♀
♊		♁ ♃	♃
♋	♃	♂ ♀	♂

Venus has dual-dignity in Taurus and rules the 1st terms. No other planets remain in Taurus, so 2nd place is given to Mercury which has two dignities in Gemini; 3rd place is given to Jupiter which is exalted in Cancer. Of the malefics, Mars has two dignities in Cancer and so

supersedes Saturn which has only one dignity by triplicity within the quadrant. **Numbers:** 1° extra is given to Venus, Mercury and Mars because each has two dignities within one of the signs of this quadrant. Jupiter, having exaltation in this quadrant does not relinquish its degrees⁷⁴ and so Saturn, being the only planet able to relinquish degrees, loses three.

Order and number should be:

♀ (7+1) 8°	♃ (6+1) 7°	♃ 7°	♂ (5+1) 6°	♁ (5-3) 2°
------------	------------	------	------------	------------

(Hephaistio demonstrates this and there is good general agreement over the order and values for the first three terms. Most other authors, (interpreting Ptolemy's comment on Mars being attributed to the house of the Moon differently), fail to recognise the relevance of its double-dignity status for Taurus. Even so, many retain the values that Hephaistio records: i.e. Saturn gets 2° and Mars 6° - surely the fact that Mars gets the extra allowance for its double-dignity in Cancer proves the argument that it ought to be prioritised over Saturn? The Paraphrase acknowledges these numerical values but the authors that follow the Commentary only recognise the triplicity rulership of Mars in Cancer, so not only does Mars fail to receive the extra degree for a double-dignity in Cancer, it also becomes eligible to lose degrees. Hence Saturn and Mars both lose 1° to make up for those given to Venus and Mercury, receiving 4° each at the end of the sign.)

Gemini:

S.	E.	Trip.	H.	
♊		♁	♃	♃
♉	♃	♂	♀	♂
♏			♃	♁

Mercury has double dignity in the sign and so rules the 1st terms. Saturn, which has dignity by triplicity in Gemini, is overlooked as it is a malefic planet with only one claim to dignity. The 2nd terms are given to Jupiter which has exaltation in Cancer; then the 3rd are given to Venus which has triplicity in this quadrant. Although Saturn has a triplicity in Gemini it is superseded by Mars which has dual dignity in Cancer. **Numbers:** 1° is given to Mercury and Mars. Jupiter, having exaltation in this quadrant does not relinquish its degrees and so both are taken from Saturn.

Order and number should be:

♃ (6+1) 7°	♃ 7°	♀ 7°	♂ (5+1) 6°	♁ (5-2) 3°
------------	------	------	------------	------------

(Most authors agree except those that follow the Commentary. These ignore the dual-dignity of Mars in Cancer and so deny its right to an extra degree. Only the degree given to Mercury is taken from Saturn so that the end of the terms reads: Saturn 4; Mars 5.)

⁷⁴ Hand's translation of the 'Proclus' Commentary reads on this point: 'Therefore I assign 7° to Jupiter, for indeed he does have [only] one relation but it is not an ordinary relation, but more distinguished than the other dignities. And I neither add nor take away anything from him, but I leave the 7° as appropriate for Jupiter'.

Cancer:

S.	E.	Trip.	H.
♄	♃	♂ ♀	♂
♁			♃
♁	♀	♀	♀

Mars gets the 1st place because of its dual-dignity in the sign.⁷⁵ Jupiter, which is exalted in Cancer, takes the 2nd place and Venus, which has triplicity in Cancer takes 3rd. Mercury, dignified in Virgo takes 4th place and Saturn is allocated to the end. **Numbers:** 1° is added to Mars and Mercury for their signs of dual-dignity. Jupiter has exaltation in the quadrant so does not relinquish its degrees; instead Saturn loses them both.

Order and number should be:

♂ (5+1) 6°	♃ 7°	♀ 7°	♃ (6+1) 7°	♁ (5-2) 3°
------------	------	------	------------	------------

(All authors agree with these numerical values. However, all of the authors I have checked are agreed upon the arrangement and place Mercury before Venus. The logic of the Commentary is that we should move from Mars in Cancer to take Jupiter from Leo and then Mercury from Virgo before allocating Venus over Mars. But this logic is inconsistently applied and so in my experiment I am generating the results that would develop out of consistent principles. It seems that here, the fall of Venus in Virgo is accounted for, not by subtraction of a degree but by a reduction of place. On the other hand, if the arrangement for Cancer was as consistent as it appears to be, then why does the Paraphrase present dual options for this sign?)

Leo:

S.	E.	Trip.	H.
♁			♃
♁	♀	♀	♀
♁	♃	♃	♀ ♀

Even though Saturn is given a 'dignity' in Leo, it fails to qualify for the 1st term because it would need two dignities to take that place. Instead Hephaistio shows that Jupiter is taken instead, which has dignity by triplicity in Leo. The 2nd place should be given to Mercury which has two dignities in Virgo and so is preferred over Venus. Saturn qualifies for the 4th place and Mars, which has no dignity in the quadrant, takes the last. **Numbers:** 1° is given to Mercury and Saturn. Since Saturn is gaining 1°, Jupiter becomes the candidate to lose the 1st degree. The 2nd might have been taken from Mars, but Venus is in fall in Virgo so Mars is overlooked and the extra degree is taken from Venus instead.

Order and number should be:

♃ (7-1) 6°	♃ (6+1) 7°	♀ (7-1) 6°	♃ (5+1) 6°	♂ 5°
------------	------------	------------	------------	------

(All authors find agreement on these numerical values but only Hephaistio comes close to presenting this order. The Commentary would present this order if the positions of Jupiter and Saturn were reversed.)

⁷⁵ Failing to recognise Mars as a substitute house-ruler for Cancer, the 'Proclus' Commentary suggests that the two relations Mars receives in this sign are triplicity and fall, but no other manuscript intimates that the relation of fall is significant and where the significance of fall is considered in the table, it results in the loss of degrees, not the acquisition of them. The prospect that debilities are considered in the relationships used to determine the order of the terms was one I entertained early on, but integrating debilities played havoc with the overall results, regardless of how much I varied the emphasis.

Virgo:

S.	E.	Trip.	H.
♿	♀	♀	♀
♎	♄	♄	♀
♍		♂	♀

Mercury, with dual-dignity, takes the 1st term followed by Venus which has triplicity in Virgo. Jupiter supersedes the malefics to take 3rd place. Saturn with dual-dignity in Libra takes precedence over Mars with dual-dignity in Scorpio. **Numbers:** 1° is given to Mercury, Saturn and Mars. 1° each is taken from the two planets able to relinquish degrees: Jupiter and Venus, with the remaining 1° taken from Jupiter as the slowest planet and also having no dignity in this quadrant.

Order & number should be:

♀(6+1) 7°	♀(7-1) 6°	♃(7-2) 5°	♄(5+1) 6°	♂(5+1) 6°
-----------	-----------	-----------	-----------	-----------

(All authors agree.)

Libra:

S.	E.	Trip.	H.
♎	♄	♄	♀
♍		♂	♀
♊			♃

Saturn, with dual-dignity in Libra, takes the 1st place followed by Venus with one dignity in Libra and another in the following sign. Mercury, with dignity in Libra, takes 3rd place. Jupiter takes 4th place over malefic Mars. **Numbers:** 1° is given to Saturn, Mars and Jupiter. 1° each is taken from the two planets able to relinquish degrees: Venus and Mercury, with another 1° taken from Venus as the slowest of these two planets.

Order & number should be:

♄(5+1) 6°	♀(7-2) 5°	♀(6-1) 5°	♃(7+1) 8°	♂(5+1) 6°
-----------	-----------	-----------	-----------	-----------

(All authors agree on the numerical values, and Hephaistio and those that follow him agree with this order. But those who follow the Commentary allow Jupiter, with dual-dignity in Sagittarius, to come before Mercury and so take 3rd place after Venus.)

Scorpio:

S.	E.	Trip.	H.
♏		♂	♀
♊			♃
♍	♂	♀	♄

Mars, with dual-dignity in Scorpio, takes 1st place followed by Venus which also has dignity in Scorpio. Jupiter, dignified in Sagittarius, takes 3rd place, followed by Mercury over malefic Saturn. **Numbers:** 1° is given to Mars and Jupiter for their dual rulerships. Both are taken from Saturn which is able to relinquish its degrees.

Order & number should be:

♂(5+1) 6°	♀ 7°	♃(7+1) 8°	♀ 6°	♄(5-2) 3°
-----------	------	-----------	------	-----------

(All authors agree on the numerical values, and Hephaistio and those that follow him agree with this order. But those who follow the Commentary allow Jupiter, with dual-dignity in Sagittarius, to come before Venus and so take 2nd place after Mars.)

Sagittarius:

S.	E.	Trip.	H.
♃			♃
♄	♂	♀	♃
♅		♃	♄

Jupiter with dual-dignity in Sagittarius takes 1st place, followed by Venus which has dignity in the following sign, and then Mercury, dignified in Aquarius. Saturn has greater dignity in the quadrant than Mars, so Mars is placed last. **Numbers:** 1° is given to Jupiter and Saturn for their dual-rulerships. Although Mars does not gain a degree, it does not lose one either, because of its exaltation in the quadrant. Instead, 1° is taken from Venus and another from Mercury.

Order & number should be:

♃ (7+1) 8°	♀ (7-1) 6°	♄ (6-1) 5°	♃ (5+1) 6°	♂ 5°
------------	------------	------------	------------	------

(All authors agree with this order and most agree with these numerical values. The figures recorded from Hephaistio however take an additional degree from Venus and give it to Mars. I suspect that this is an error since there is no justification for this and the Hephaistio values concur with the totals of the greater years only if this is not done.)

Capricorn:

S.	E.	Trip.	H.
♄	♂	♀	♃
♅		♃	♄
♆	♀	♂	♀

Venus takes 1st place with its triplicity dignity in the sign; Mercury, dignified in Aquarius, takes the 2nd place followed by Jupiter, dignified in Pisces. Of the two malefics, Mars has the best dignity in Capricorn and so takes 4th place, leaving Saturn to take the last place. **Numbers:** 1° is given to Saturn and Venus since both have dual-dignities in signs

in this quadrant. Mars keeps its degrees because of its exaltation, so 1° is taken from Jupiter and another from Mercury.

Order & number should be:

♀ (7+1) 8°	♄ (6-1) 5°	♃ (7-1) 6°	♃ 5°	♂ (5+1) 6°
------------	------------	------------	------	------------

(Most authors agree with this order but it is impossible to reconcile the rules that have stood firm so far, with the traditional record of the degrees allocated to the planets. The Commentary does not allow an extra degree for either Saturn or Venus, and actually moves 1° from Venus to Mars because of his exaltation within this sign (so Venus gets only 6° and Mars also gets 6°). Although planets do not usually receive an extra point for exaltation within the quadrant, it might make sense that they would within their own sign – but why take that degree from Venus which has dignity within the sign and a double-dignity within the quadrant? Why not take the degree away from Jupiter which is not only the heavier planet but ripe to give away a degree on account of its fall in Capricorn? The Hephaistio values are a little more sensible but still puzzling in failing to recognise the double-dignity of Venus. Mars does not receive an extra degree and Saturn does, but the degree given to Saturn is again taken from Venus, as if her double-dignity does not exist. This inconsistent intervention was possibly designed to ensure that the term totals will generate the final years as established by the Egyptian terms.)

Aquarius:

S.	E.	Trip.		H.
♁		♁	♃	♁
♃	♀	♂	♀	♃
♄			♃	♂

Saturn, with dual-dignity in the sign, takes 1st place. Mercury, dignified in Aquarius, takes the 2nd place followed by Venus, dignified in Pisces. Jupiter takes the 3rd place over the malefics, leaving Mars to take the last place. **Numbers:** 1° is given to Saturn and Venus. Both are taken from Jupiter although we might have argued that 1° should be taken from Jupiter and another from Mars.

Order & number should be:

♁ (5+1) 6°	♃ 6°	♀ (7+1) 8°	♃ (7-2) 5°	♂ 5°
------------	------	------------	------------	------

(All authors agree.)

Pisces:

S.	E.	Trip.		H.
♃	♀	♂	♀	♃
♄			♃	♂
♅		♀		♀

Venus, with dual-dignity in the sign, takes 1st place. Jupiter, dignified in Pisces, takes the 2nd place followed by Mercury which takes precedence over the malefics. Mars has dignity in Pisces and so takes the 4th place leaving Saturn at the end. **Numbers:** 1° is given to Venus. It should be taken from Saturn, the prime candidate to relinquish one of its degrees as the heaviest planet that has no dignity within this quadrant.

Order & number should be:

♀ (7+1) 8°	♃ 7°	♃ 6°	♂ 5°	♁ (5-1) 4°
------------	------	------	------	------------

(All authors agree with this order but bizarrely, the Hephaistio tables ignore Saturn to take the extra degree from Jupiter, whilst the Commentary does take 1° from Saturn, but it also takes 1° from Jupiter to give to Mars.)

Conclusion

Ptolemy confessed that he could ‘barely gain an idea’ of the ancient document in his possession, so we have to wonder whether his decision to present the principles of numeration ‘generally speaking’ obscured some failure, even on his part, to understand its principles in detail. Did that ancient manuscript present a perfect match for the term totals? Or just a correspondence that was close enough for it to be taken as ‘generally appropriate’? The latter would lead to a temptation to alter the values of the arrangement over time, in such a way that the initial consistency of the design became lost through the intention of perfecting the totals of the numbers. Because of the incorporation of conflicting principles in the sources that remain available, it now seems impossible to validate any historical table of Ptolemaic terms as demonstrably accurate and internally consistent in its own logic.

Despite engaging in this research with a hope that I would prove Lilly's table to be the most reliable, I am forced to acknowledge that the most ancient values recorded by Hephaistio prove most convincing – and this is through analysis of details that I initially regarded (due to general perception) as obvious mistakes. The issue of whether Jupiter or Saturn should govern the first terms of Leo is a pivotal one, because the logic that determines that order has a knock-on effect which influences the other significant areas of disagreement. Through the evidence presented by the allocation of degrees, I believe that the approach demonstrated by the Hephaistio values is correct, and that the unfortunate influence of the *Commentary* was to perpetuate a general misunderstanding on this point. Below is an experimental table (fig. 16) which I created using a consistent application of the rules that seem most reliably expressed. Compared to the table described by Hephaistio there are minor disagreements in the numerical values, and two areas of disagreement in the arrangement, one of which (Cancer) is explicable through the consideration of the debility of Venus within its relevant quadrant, the other (Leo) appearing more likely as an error in transmission, (since no other author, including those who followed Hephaistio, allow Venus priority over Mercury).

My intention however, is not to champion the table of Hephaistio, nor forward a new proposition; but to understand more about our historical records, and to present the case for caution when dismissing ancient values purely because they do not run as expected. The well meaning intention of translators and transcribers to correct the unfamiliar may have diminished the possibility of ever recovering Ptolemy's original table in all its details; but beyond the value of the data, there is much to be gained from the attempt to understand the principles embedded in ancient arrangements such as this. These sorts of avenues of thought should remain open to investigation, because they are pregnant with insights that may not only solve the mystery of the 'Ptolemaic terms' but lead us towards a more complete understanding of the more widely accepted table of Egyptian terms and its associated techniques. We need to be clearer in our understanding that the table Ptolemy presented was supposed to be an older account of the Egyptian terms with an explanation of their logic, not something which was set up to be a separate and rival system. What Ptolemy has allowed us to see is that there is too much logic built into the Egyptian terms for them to be simply dismissed as random, meaningless figures. But, like Ptolemy, we do not have enough understanding of the values placed upon their planetary relationships to be able to crack that code just yet. For the moment all we can do is to clarify what is and (more importantly) what is not presently understood with regard to the underlying principles of planetary dignities and their relevancy in ancient astrology, and hope that as we expand our knowledge of ancient sources, we become not only more capable of following classical techniques, but of truly understanding them, by which we will be more competent in our ability to complete the gaps and highlight potential errors of transmission.

Fig. 16: comparison of table generated by recorded principles against historically preserved accounts

Experimental table of terms										Table of terms described by the <i>Commentary</i> (Finding agreement with Camerarius, Lilly, etc)										
Disagreements with Hephaistio are highlighted																				
Υ	♃	6	♀	8	♃	7	♂	5	♁	4	♃	6	♀	8	♃	7	♂	5	♁	4
♃	♀	8	♃	7	♃	7	♂	6	♁	2	♀	8	♃	7	♃	7	♁	4	♂	4
♁	♃	7	♃	7	♀	7	♂	6	♁	3	♃	7	♃	7	♀	7	♁	4	♂	5
♁	♂	6	♃	7	♀	7	♃	7	♁	3	♂	6	♃	7	♃	7	♀	7	♁	3
♁	♃	6	♃	7	♀	6	♁	6	♂	5	♁	6	♃	7	♀	6	♃	6	♂	5
♁	♃	7	♀	6	♃	5	♁	6	♂	6	♃	7	♀	6	♃	5	♁	6	♂	6
♁	♁	6	♀	5	♃	5	♃	8	♂	6	♁	6	♀	5	♃	8	♃	5	♂	6
♁	♂	6	♀	7	♃	8	♃	6	♁	3	♂	6	♃	8	♀	7	♃	6	♁	3
♂	♃	8	♀	5	♃	5	♁	6	♂	6	♃	8	♀	6	♃	5	♁	6	♂	5
♃	♀	8	♃	5	♃	6	♁	5	♂	6	♀	6	♃	6	♃	7	♂	6	♁	5
♁	♁	6	♃	6	♀	8	♃	5	♂	5	♁	6	♃	6	♀	8	♃	5	♂	5
♁	♀	8	♃	7	♃	6	♂	5	♁	4	♀	8	♃	6	♃	6	♂	6	♁	4

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Appendix A

The strange inconsistency in the Camerarius edition

During the course of my research it struck me as odd that F. E. Robbins could claim close agreement with the table of terms presented in the 16th century text of Camerarius, whilst knowing that the Camerarius table was also the origin of the tables reproduced by Cardan, Junctinus, (and so agreeing with Lilly, Hübner and Schmidt, *etc.*). Upon checking the Camerarius manuscript it became evident that the Greek text presents a different table of terms from that of the accompanying Latin translation!

Obviously, the Italian Renaissance astrologers Junctinus and Cardan would have referred the Latin translation in this work, which was then passed forward into the text of William Lilly. But Robbins matched his values to the Greek text, which is much closer to the values recorded by Hephaistio. Since the point of merit of the Camerarius edition is that it is based upon Greek sources, (and so suffers no corruption by passing through an Arabian or other language translation) it is the Greek transliteration which is expected to be the most reliable point of reference. So this presents yet another indication that the Hephaistio record of the ‘Ptolemaic terms’, as picked up by Robbins, is able to be more reliable than the *Commentary* values which found their way into the texts of Lilly and Schmidt, *et all*.

BIBAIION A. 49

ἠὲ ἔνδεκα ὄνειδος, τὸ εἰς τὰ δεκάμη πῆρα λαμβανόμενος, περὶ δίδοται ἐκείσων τῶν ἡμισίων ἰσχυρὸν αἰ τὸ αὐτὸ τῷ ζώδιον, ἀπὸ τε αὐτῶν ἰσχυρὸν, μέχρι τεταρτημορίου, μοῖρα μία, οὗτος ἠὲ τῶν ἡμισίων σιγμαί, ἀφαίρεση ἢ αἰ πρὸς τὸ κελῶναι τὸ διπλαῖον ἀπὸ τῶν λοιπῶν καὶ μονάχων, ὡς ἴδιον καὶ ἄλλοι, εἴτα καὶ τῶν ἡμισίων ἢ βραδυπύρον αὐτῶν τὸ κινῆσθαι, εἰς τὸ τῶν ἡμισίων ἢ ἐκείσων, τοιαύτη.

Υ	Ζ	5	♀	3	♂	6	♂	5	♂
♂	♀	8	♂	7	♂	7	♂	4	♂
♂	♀	7	♂	7	♀	7	♂	4	♂
♂	♀	6	♂	7	♀	7	♀	7	♂
♂	♂	6	♀	7	♀	6	♂	6	♂
♂	♂	6	♀	5	♂	8	♂	5	♂
♂	♀	7	♀	6	♂	5	♂	6	♂
♂	♂	6	♀	5	♂	8	♂	5	♂
♂	♂	6	♀	5	♂	8	♂	5	♂
♂	♀	6	♀	6	♂	7	♂	6	♂
♂	♀	6	♀	6	♂	7	♂	6	♂
♂	♀	6	♀	6	♂	7	♂	6	♂
♂	♀	6	♀	6	♂	7	♂	6	♂

Διὰ τὸν δεκάμη καὶ εἰς τὸ τῶν ἡμισίων λεγόμενος ἰσχυρὸν τὸ τμήμα ταὶ οἰμοδεσποτίας, τὸ πρὸς ἡμισίον ὀνομαζόμενον, ἢ τὸ πρὸς ἡμισίον ἢ ἡμισίον, οὗτος ἡμισίον τεταρτημορίου, ὡς ἴδιον καὶ ἄλλοι, εἴτα καὶ τῶν ἡμισίων ἢ βραδυπύρον αὐτῶν τὸ κινῆσθαι, εἰς τὸ τῶν ἡμισίων ἢ ἐκείσων, τοιαύτη.

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Υ	Ζ	6	♀	8	♂	7	♂	5	♂
♂	♀	8	♂	7	♂	7	♂	4	♂
♂	♀	7	♂	7	♀	7	♂	4	♂
♂	♀	6	♂	7	♀	7	♀	7	♂
♂	♂	6	♀	7	♀	6	♂	6	♂
♂	♂	6	♀	5	♂	8	♂	5	♂
♂	♀	7	♀	6	♂	5	♂	6	♂
♂	♂	6	♀	5	♂	8	♂	5	♂
♂	♀	6	♀	6	♂	7	♂	6	♂
♂	♀	6	♀	6	♂	7	♂	6	♂
♂	♀	6	♀	6	♂	7	♂	6	♂
♂	♀	6	♀	6	♂	7	♂	6	♂

Nonnulli etiam ex illius partitū fū dominationum iura, uocarūt q̄ locū & partes. Ac locum tradiderūt effū niūscūm q̄ signū portione m duode mā, id est, gradus duos & dimidiū. Q enim incipiāt ā signo in quo est fletū tribuunt uim illi loco in sequentiū signis. Alij excogitarunt alias distū butiones, sine ratione. Partes uero tribuunt in quolibet signo, ab initio caebet planetae, iuxta ordinem finium tū bulae Chaldaicae.

Sed hac ad ostentationem exco

Cardan / Junctinus / Lilly
(1578 / 1583 / 1647)

Υ	Ζ	♀	♂	♂	♂
♂	♀	♂	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♀	♂	♀	♂	♂
♂	♂	♀	♂	♂	♂
♂	♀	♂	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♀	♂	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♀	♂	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♀	♂	♂	♂	♂

Lilly et all agree with the Latin

F.E Robbins (1940)

S	1	2	3	4	5
Υ	♂	♀	♂	♂	♂
♂	♀	♂	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂
♂	♂	♀	♂	♂	♂

Robson agrees with the Greek

◀ ▲ Two pages from the same 1535 text of Camerarius showing different tables in Greek and Latin

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