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The Hermetic Frontispiece: Contextualising John Dee’s Hieroglyphic Monad

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This essay examines the elaborate title pages of some of alchemist, astrologer, and bibliophile John Dee’s publications with a focus on the two best known works that feature his famous Hieroglyphic Monad, the *Propaedeumata Aphoristica* (1558) and *Monas Hieroglyphica* (1564). The aim is to cast light on its context, identify sources for some textual influences in the works, unpack the visual symbolism in the two “monadic” title pages in relation to the two complementary sciences of “superior” and “inferior” astronomy, speculate on some of the more enigmatic details, and conclude with a brief discussion of a possible astrological significance to the dates of composition of the *Monas Hieroglyphica*.

On judging a book by its cover

The “single most important feature of a book,” that best displaying “the book’s typographical character,” historian of typography and graphic communication Margaret Smith argues, is the title page.¹ In a similar vein, Renaissance scholar Margery Corbett and art historian Ronald Lightbown observe that “the purpose of the ambitiously designed title-page was more than simply to decorate the book; rather its purpose was to epitomise the book and glorify its author and his work.”² Such is arguably the case with the English alchemist and occult philosopher John Dee (1527–1608/9), whose title pages are rarely random events, but rather deeply considered productions, albeit at times so cryptic that their message remains concealed to this day.

¹ Margaret M. Smith, *The Title-Page: Its Early Development 1460–1510* (London: British Library, 2000), 11.

² Margery Corbett and Ronald Lightbown, *The Comely Frontispiece: The Emblematic Title-Page in England 1550–1660* (London: Routledge and Kegan Paul, 1979), 46.

Delta means Dee (1570)

One of the more accessible manifestations of Dee's cryptic style is his well-known fondness for visual and verbal plays on his name.³ Although the elaborate title page for Henry Billingsley's 1570 translation of Euclid's *Elements of Geometrie* into English, printed by John Daye (1522–1584), “one of the titans of the Elizabethan book world,”⁴ is not Dee's design, but Daye's recycling of the frontispiece of *The Cosmographical Glasse* he printed for the physician William Cuningham in 1559,⁵ the opening page of the *Mathematicall Praeface* that Dee wrote for Billingsley's edition is one hundred per cent Dee. The main text, beginning with the words, “Divine Plato,” opens with a huge decorative initial letter D (Figure 1), within which is found the Greek *Delta* Δ, representing both the *fourth* letter of the Greek alphabet and the number *three* as a triangle in geometry, as well as the initial letter of Dee's surname.⁶ Dee had already used this *Delta* as a signature at the end of the *Monas Hieroglyphica* in 1564,⁷ and a manuscript in Oxford's Bodleian library, “Primi Quatridui Mysterium,” with four couplets addressed to William Cecil, is likewise subscribed with Dee's Δ, which mirrors the huge triangle

³ William H. Sherman, *John Dee: The Politics of Reading and Writing in the English Renaissance* (Amherst, MA: University of Massachusetts Press, 1995), 10.

⁴ Andrew Pettegree, “Day, John (1521/2–1584),” *Oxford Dictionary of National Biography* (Oxford University Press, 2004; online edn, Jan 2008), <http://www.oxforddnb.com.proxy.uba.uva.nl:2048/view/article/7367> (accessed 7 Feb 2017). Daye was “one of the London book trade's most innovative and adept members.”

⁵ William Cuningham, *The Cosmographical Glasse Conteyning the Pleasant Principles of Cosmographie, Geographie, Hydrographie, or Navigation* (London: John Daye, 1559). See Germain Aujac, “À propos d'un frontispice: la science grecque dans l'Angleterre du xvi^e siècle,” *Anabases: Traditions et Réceptions de l'Antiquité* 3 (2006): 27–54, especially 37, 40. The evangelically Protestant Daye published John Foxe's 1800-page *Book of Martyrs* in 1563; see Elizabeth Evenden and Thomas S. Freeman, *Religion and the Book in Early Modern England: The Making of John Foxe's 'Book of Martyrs'* (Cambridge: Cambridge University Press, 2011), 266. See also Elizabeth Evenden, *Patents, Pictures and Patronage: John Day and the Tudor Book Trade* (Abingdon: Ashgate, 2016), 150. Dee's anger at the *Book of Martyrs'* reference to him as “Doctour Dee the great conjurer” may have been one reason for him looking overseas for a publisher for the 1564 *Monas Hieroglyphica*. See Dee's *Mathematicall Praeface* to Billingsley's translation of Euclid's *Elements of Geometrie* (1570), in *John Dee: Essential Writings*, ed. Gerald Suster (Berkeley: North Atlantic Books, 2003), 43–44.

⁶ For Dee's other self-referential devices, including the page signatures running from *a* to *d* and then beginning again with *A*, see Sherman, *John Dee: The Politics of Reading*, 10. See also William W. E. Slights, *Managing Readers: Printed Marginalia in English Renaissance Books* (Ann Arbor: University of Michigan Press, 2001), 143. Dee expounds on the mysteries of the letter *Delta* in a letter to William Camden, dated Mortlake, 7 August 1574. See Oxford, Bodleian Library, MS Ashmole 1788, arts. 1–18; Sherman, *John Dee: The Politics of Reading*, 119. Consider also Dee's fondness for the Virgilian “thrice happy, four times happy” (*Aeneid* 1:94: *Terque Quaterque beati*). See *Monas Hieroglyphica* Theorem XX, in C. H. Josten, “A Translation of John Dee's ‘Monas Hieroglyphica’ (Antwerp, 1564), with an Introduction and Annotations,” *Ambix* 12 (1964): 84–219, at 185: “O thrice and four times happy, those who can reach that (as it were, copulative point of the ternary, and who can part with that loathsome and superfluous point of the quaternary.” In his “Dissertation on the Number Seven” in *Somnium Scipionis*, bk. 1, chap. 6, Macrobius alledes that with this phrase Virgil is saying “seven times happy,” to signify the most full and consummate Felicity.

⁷ Dee, *Monas Hieroglyphica*, sig. 28r: “Amen, Dicit Litera Quarta, Δ”; Josten, “A Translation,” 219: “Amen, says the fourth letter, Δ.” See Josten's n. 130 on the same page concerning Dee referring to himself by the letter *Delta*. In his letter to Emperor Rudolf II of 17 August 1584, Dee calls himself *Triplicis Alphabeti litera Quarta* (Fourth letter of the Threefold Alphabet), by which he must have meant the Latin *D*, Greek *Delta*, and Hebrew *Daleth*. Others occasionally followed suit: for example, for a reference to “Liber Monadis J. Δ” in an alchemical manuscript (Kassel, Landesbibliothek MS chem 67, fol. 1v), see Jennifer M. Rampling, “John Dee and the Alchemists: Practising and Promoting English Alchemy in the Holy Roman Empire,” *Studies in History and Philosophy of Science* 43 (2012): 498–508, at 503.



FIGURE 1 Opening page of John Dee's *Mathematicall Praeface* (London, 1570), sig. **[o]r*. © British Library Board, shelfmark C.40.i.7.

of the holy trinity on the frontispiece.⁸ Such a combination of morphology and arithmology was part and parcel of Dee's fascination with the alpha-numeric exegetical speculations of Jewish Kabbalah, the magic alphabets found in the works of Trithemius, Agrippa, and Pantheus, and the "hieroglyphic" ciphers of alchemy. Visible at the bottom of the huge letter D in the *Mathematicall Praeface*, beneath a version of Dee's coat of arms, is his famous hieroglyphic monad, or London Seal of Hermes, an image central to the title pages that form the focus of this essay.

A British hieroglyph (1577)

Dee, who had been fellow and under-reader of Greek in 1547–48 at Cambridge's newly founded Trinity College,⁹ displays a delight in the inclusion of the exotic typography of Greek that went beyond the simple use of the *Delta*.¹⁰ This was an authorial trait that persisted throughout his life. One of his later works, indeed the first publication discussed in Corbett and Lightbown's *The Comely Frontispiece*, his

⁸ Bodleian Library, MS Ashmole 1789, fol. 2b; William Henry Black, *A Descriptive, Analytical, and Critical Catalogue of the Manuscripts Bequeathed unto the University of Oxford by Elias Ashmole* (Oxford: Oxford University Press, 1845), col. 1495.

⁹ Deborah E. Harkness, *John Dee's Conversations with Angels: Cabala, Alchemy, and the End of Nature* (Cambridge: Cambridge University Press, 1999), 14; Peter J. French, *John Dee: The World of an Elizabethan Magus* (London: Routledge, 1972; repr. Ark Paperbacks, 1987), 24; Sherman, *John Dee: The Politics of Reading*, 5.

¹⁰ It is worth noting that the prefatory "A necessary Advertisement, by an vnknown freend, giuen to the modest, and godly Readers" at the start of Dee's *General and Rare Memorials* does not have the standard signatures, e.g. Aij, but instead Δij, etc.

General and Rare Memorials pertayning to the Perfect Arte of Navigation (London, 1577), published, like Euclid's *Elements*, by John Daye, bears an impressive woodcut title-page containing so much cryptic information that Dee felt compelled to provide his readers with a partial explanation of its contents towards the end of his introductory letter to one of Elizabeth's favourites, Christopher Hatton (1540–1591), "Captain of her Maiesties Garde." As William Slights observes, Dee's book's "title is surrounded by a hermetic aphorism, his title page illustration by a hieroglyphic pronouncement," much of which must have been mystifying for the general reader.¹¹ The oval around the title contains the phrase "Plura Latent Quam Patent" (More is Concealed than Revealed), a phrase perhaps influenced by the third symbol in the Italian humanist Achille Bocchi's *Symbolicarum Quaestionum Libri Quinque* (Five Books of Symbolic Questions, 1555), depicting Socrates, his daimon, and a stele.¹²

Dee's "fondness for esoteric symbols"¹³ appears on the frontispiece (Figure 2): in the Hebrew four-letter name of God, the *Tetragrammaton* יהוה in the heavens; in the archangel Michael (labelled with his name in Hebrew) flying above the emblematic figure of *Occasio* (Opportunity); and in the Greek Chi-Rho christogram on the masts of the ship ΕΥΡΩΠΗ (Europa), where Queen Elizabeth I sits enthroned at the helm, with a suppliant, the female embodiment of "Res Publica Brytanica," requesting an "armed fleet" (Στολος Εξοπλισμενος), next to a town identified as the "citadel of security" (το της ασφαλειας φρουριον).¹⁴ This allegory of empire is enclosed by a square border bearing the Greek words ΙΕΡΟΓΛΥΦΙΚΟΝ ΒΡΥΤΑΝΙΚΟΝ (Hieroglyphikon Brytanikon – The British Hieroglyph).

Even in his "ekphrastic recapitulation" of this image,¹⁵ however, Dee does not reveal everything, and only in 1785 did the bibliographer William Herbert (1718–1795) – in his revision of the *Typographical Antiquities* of the antiquary Joseph Ames (1689–1759) – explain the significance of the four Greek letters in the roundels at the corners of the square in Dee's title-page, suggesting that the letters α

¹¹ Slights, *Managing Readers*, 155.

¹² Achille Bocchi, *Symbolicarum Quaestionum ... Libri Quinque* (Bologna, 1555), VI Lib. Prim: "Pictura gravium ostenduntur pondera rerum. Quaeque latent magis, haec per mage aperta patent" ("The significance of weighty things [is] shown by a picture. Whatever is more hidden, becomes more apparent through it"). See Kenneth Lapatin, "Picturing Socrates," in *A Companion to Socrates*, ed. Sara Ahbel-Rappe and Rachana Kamtekar (Oxford: Wiley-Blackwell, 2009), 110–55, at 134. Alastair Fowler, writing of Dee's *General and Rare Memorials*, claims Dee's phrase is "a common saying in the Paracelsian tradition," providing Hugh Platt's later *Jewell House of Art and Nature* (1594) as evidence: see Alastair Fowler, *The Mind of the Book: Pictorial Title-Pages* (Oxford: Oxford University Press, 2017), 87–93, at 91. Stuart Clarke, on the other hand, describes it as "the classic slogan of intellectual magic": Stuart Clarke, "Magic and Witchcraft," in *Finding Europe: Discourses on Margins, Communities, Images, Ca. 13th–ca. 18th Centuries*, ed. Anthony Molho, Diogo Ramada Curto, and Niki Koniordos (New York: Berghahn Books, 2007), 115–30, at 126.

¹³ Fowler, *Mind of the Book*, 90.

¹⁴ Dee, *General and Rare Memorials*, 53. See Corbett and Lightbown, *Comely Frontispiece*, 50. For further analysis see Slights, *Managing Readers*, chap. 4; Lesley B. Cormack, *Charting and Empire: Geography at the English Universities, 1580–1620* (Chicago: University of Chicago Press, 1997), 3f; Eliza Richter, "The Ship of Europe: The Iconography of John Dee's *General and Rare Memorials*," in *Early Modern Constructions of Europe: Literature, Culture, History*, ed. Florian Kläger and Gerd Bayer (Abingdon: Routledge, 2016), 181–93, at 188: "a fully equipped expeditionary force." Fowler, *Mind of the Book*, 93, convincingly argues that the design is almost certainly Dee's, with reference to a draft of the frontispiece among the papers of Elias Ashmole: MS Ashmole 1789.

¹⁵ Slights, *Managing Readers*, 139.



FIGURE 2 John Dee, *General and Rare Memorials pertayning to the Perfect Arte of Navigation* (London, 1577), frontispiece. © British Library Board, shelfmark C.21.e.12.

(*alpha*), φ (*phi*), ο (*omicron*) and ζ (*stigma*) stand for the numbers one, 500, seventy, and six in the ancient Greek Milesian numerical system.¹⁶ It is perhaps more likely

¹⁶ Kieren Barry, *The Greek Qabalah: Alphabetic Mysticism and Numerology in the Ancient World* (York Beach, ME: Samuel Weiser, 1999), 22. See William Herbert's revised edition of Joseph Ames, *Typographical Antiquities, or, The History of Printing in England* (London: Longman, Hurst, Rees, Orme, and Brown, 1819), vol. 4, 142, where we can see that Herbert has read the final letter as a *Stigma*, with the value of six, giving the date of the "year of the execution" of the engraving, rather than a *Zeta*, with the value of seven, for the year of publication.

that the final letter in this chronogram is a ζ (*zeta*) and thus a seven, which makes more sense, given that the publication date of *General and Rare Memorials* was 1577.

An aphoristic introduction (1558)

Our story, however, begins two decades earlier, in London in 1558, when the stars seemed to be shining favourably on John Dee. Queen Mary (1516–1558) – who had imprisoned him in 1555 under accusation of treason for “lewde vayne practices of calculing and conjuring,” because he cast horoscopes of her, her husband Philip of Spain, and the Princess Elizabeth¹⁷ – passed away and her half-sister, Elizabeth (1533–1603), came to the throne. Elizabeth was far more sympathetic towards Dee, even asking him to confirm by means of elective astrology that the date chosen for her coronation was suitably propitious.¹⁸ At this time Dee’s reputation as a “Mathematicus” rested on his skill with astronomical calculation. His expertise in astrology extended beyond genethliology, the calculation of nativities or personal birth charts, to the casting of elective charts in order to determine the most propitious day for a voyage, a magical ritual, or indeed an alchemical process, and to the considerations of Mundane astrology, orientated not towards individuals but instead towards general world events, concerned with large-scale natural and historical changes, from meteorological to political.¹⁹ Dee’s diaries, entries made in the margins of the astronomical ephemerides that he owned, contained “notes on the weather on particular days, potentially the basis of a systematic programme of observations linking weather patterns with planetary positions.”²⁰

These kinds of observations served as the basis for Dee’s first major work of significance in natural philosophy, the ΠΡΟΠΑΙΔΕΥΜΑΤΑ ΑΦΟΡΙΣΤΙΚΑ [*Propaedemata aphoristica*] – *An Aphoristic Introduction concerning certain outstanding virtues of Nature*, first published in 1558. Truth be told, its appearance on the world stage was not particularly impressive. It appeared as the final piece in a collection of works on astrology and is rather overshadowed by the *Brevis et perspicua ratio iudicandi genituras* (A Brief and Clear Way of Judging Birth Charts) of the famed Bohemian astrologer and mathematician to the Elector Palatine, here presented as the “excellent Mathematicus” (that is, both mathematician and astrologer) Cyprian Leowitz (1514/24–1574),²¹ and the *Admonitio de vero & licito astrologiae usu*

¹⁷ French, *John Dee*, 6, 34; Richard Dunn, “John Dee and Astrology in Elizabethan England,” in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas (Dordrecht: Springer, 2006), 85–94, at 92.

¹⁸ Glyn Parry, *The Arch-Conjuror of England: John Dee* (New Haven: Yale University Press, 2011), 49. See also Dunn, “John Dee and Astrology,” 92; Howard Dobin, *Merlin’s Disciples: Prophecy, Poetry, and Power in Renaissance England* (Stanford: Stanford University Press, 1990), 1.

¹⁹ On the various kinds of astrology practised in Dee’s time, see H. Darrel Rutkin, “Various Uses of Horoscopes: Astrological Practices in Early Modern Europe,” in *Horoscopes and Public Spheres: Essays on the History of Astrology*, ed. Günther Oestmann, H. Darrel Rutkin, and Kocku von Stuckrad (Berlin: Walter de Gruyter, 2005), 167–82.

²⁰ Dunn, “John Dee and Astrology,” 92.

²¹ Title page, *Brevis et perspicua ratio iudicandi genituras* (London, 1558). On Leowitz, see Ann Geneva, *Astrology and the Seventeenth-Century Mind: William Lilly and the Language of the Stars* (Manchester: Manchester University Press, 1995), 135. On Wolf, see William R. Newman and Anthony Grafton, Introduction to *Secrets of Nature*:

(Admonition Concerning the True and Licit Use of Astrology) by Leowitz's correspondent, the Bavarian scholar Hieronymus Wolf (1516–1580), presented as “a man outstanding in all humanistic literature, in understanding of languages, and mathematical arts.”²² Modestly, at the very bottom of the page, in smaller print, we find *Libellus de præstantioribus quibusdam naturæ virtutibus* (A Little Book Concerning Certain Outstanding Virtues of Nature) by the London author John Dee. On the collection's title page, Dee's Greek is ignored, only appearing at the start of his work at the back of the book (Figure 3). In John Johnson's account of Henry Sutton's contributions to the history of typography in his *Typographia* (1824), Dee's work is not even registered as a separate publication.²³ At first it is difficult, then, to imagine why Dee would have chosen Henry Sutton as his publisher. Most histories of printing mention that Sutton had a shop in St Paul's Churchyard, and lived in Paternoster Row, at the sign of the Black Boy,²⁴ and that during Queen Mary's reign he printed various church books,²⁵ and was a well-known printer of ballads.²⁶

It transpires, however, that Sutton was an original member of the Stationers' Company, officially incorporated as the Company of Stationers of London by a royal charter, granted by Philip II of Spain and Mary Tudor, on 4 May 1557. This charter guaranteed exclusivity to the Company: no one in the realm should act as a printer unless he were a Freeman of the Stationers' Company of London. Sutton's name is well known in the cultural bibliography of theatre studies because of his famous apprentice Valentine Simmes (1594–1623), printer to many of the notable playwrights of Elizabethan and Jacobean England.²⁷ Perhaps this is the reason for Sutton's appeal to the ever ambitious Dr Dee?

As a publisher, Sutton was clearly quick off the mark. The very first Stationers' Register entry solely concerned with the publication of a dramatic text appeared in October/November of 1557, and it concerned Dee's publisher: “To Henry Sutton to prynte an enterlude upon the history of Iacobe and Esawe out of the xxvij chapeter of the fyrste boke of moyses Called genyses.”²⁸ The following year

²¹ *Continued*

Astrology and Alchemy in Early Modern Europe, ed. Newman and Grafton (Cambridge, MA: The MIT Press, 2001), 9ff. On both Leowitz and Wolf, see Lynn Thorndike, *A History of Magic and Experimental Science: The Sixteenth Century* (New York: Columbia University Press, 1941), vol. 6, 111–18.

²² Title page, *Brevis et perspicua ratio*: “Hieronymum Wolfium, virum in omni humaniore literatura, linguarum, artiumque Mathematicarum cognitione præstantem.”

²³ John Johnson, *Typographia, or The Printers' Instructor: Including an Account of the Origin of Printing* (London, 1824), vol. 2, 566–67.

²⁴ See, for example, Philip Luckombe, *The History and Art of Printing* (London, 1771), 102; Thomas Curson Hansard, *Typographia: An Historical Sketch of the Origin and Progress of the Art of Printing* (London, 1825), 129.

²⁵ See E. C. Bigmore and C. W. H. Wyman, eds., *A Bibliography of Printing*, 3 vols. (London: 1880–1886; repr. Cambridge: Cambridge University Press, 2014), vol. 1, 411–12; Frank Isaac, *English Printers' Types of the Sixteenth Century* (Oxford: Oxford University Press, 1936), 32.

²⁶ Joseph Lilly, *A Collection of Seventy-Nine Black-Letter Ballads and Broad-sides* (London, 1870), ix.

²⁷ See Marta Straznicky, ed., *Shakespeare's Stationers: Studies in Cultural Bibliography* (Philadelphia: University of Pennsylvania Press, 2013), 286; W. Craig Ferguson, *Valentine Simmes: Printer to Drayton, Shakespeare: Chapman, Greene, Dekker, Middleton, Daniel, Jonson, Marlowe, Marston, Heywood, and Other Elizabethans* (Charlottesville, VA: Bibliographical Society of the University of Virginia, 1968), 5.

²⁸ Douglas A. Brooks, “Dramatic Authorship and Publication in Early Modern England,” in *Medieval and Renaissance Drama in England*, ed. John Pitcher (Madison: Fairleigh Dickinson University Press, 2003), vol. 15, 77–97, at 89.



FIGURE 3 Frontispiece, John Dee, *Propaedeumata Aphoristica* (London, 1588). Courtesy of the Beinecke Rare Book and Manuscript Library, Yale University.

saw Sutton's publication of Dee's *Propaedeumata*, on "the power of the heavenly bodies."²⁹ In the 120 aphorisms of his "Great demonstrative work on the New Art,"³⁰ Dee set down the outlines of his innovative new astrological system, in a combination of astronomical theory and astrological practice, optimistically arguing for a mathematical, especially geometrical study of the influences operating on all things in the natural world.³¹

Identifying Dee's Greek sources

In addition to his call for observation of natural phenomena, it was also likely from the imposing Greek title of the *Propaedeumata Aphoristica* that Dee would make use of his linguistic abilities to provide newly rediscovered material in support of

²⁹ Wayne Shumaker, ed. and trans., *John Dee on Astronomy: Propaedeumata Aphoristica (1558 & 1568)* (Berkeley: University of California Press, 1978), 113: "de Caelestium corporum virtute."

³⁰ Shumaker, *John Dee on Astronomy*, 113.

³¹ Dunn, "John Dee and Astrology," 87. For more, see Nicholas H. Clulee, *John Dee's Natural Philosophy: Between Science and Religion* (London: Routledge, 1988), Part One.

his ideas from the writings of Greek antiquity; this is indeed the case, although he is surprisingly reticent about his sources. Thus it is that we have the inclusion, in Greek, of such quotes as,

CXIX. Χωρίς τῆς κοσμικῆς συμπαθείας, τοῖς ἀνθρώποις οὐδὲν ἐπιγίνεται: ut nos Mercurius ille Termaximus docuit.

[Nothing happens to men without cosmic sympathy, as Thrice-Great Hermes has taught us.]³²

This source turns out to be the second-century BCE *Ἰατρομαθηματικά Ἑρμοῦ τοῦ Τρισημίτου πρὸς Ἄμμωνα Αἰγύπτιον* (Iatromathematica of Hermes Trismegistos to Ammon the Egyptian).³³ Other sources, unidentified until now, include the earliest surviving work on physiognomy, *Ἀριστοτέλους Φυσιognομικά* (the pseudo-Aristotelian *Physiognōmika*);³⁴ Ptolemy's *Τῶν πρὸς Σύρον ἀποτελεσματικῶν* (the *Apotelesmatica*, better known as the *Tetrabiblos*);³⁵ Ptolemy's *Καρπός* (*Centiloquium*);³⁶ and Alexander of Aphrodisias's *Περὶ Ἐιμαρμενης* (On Fate).³⁷ The ultimate purpose of all this material is to “make smooth a broad way to a complete knowledge of astrology,”³⁸ so that, armed with such knowledge, “a wise man ... can drink in a most noble science for the purpose either of procuring good fortune or of removing bad, *or contrariwise*, as much for himself as for others.”³⁹

Astrology is not, however, the only subject of interest in the *Propaedeumata*, as an attentive reader would note from the title page. After the extremely bland cover-page to the whole volume,⁴⁰ Dee's personal architectural title-page is striking. Dominating the centre of the page, flanked by Dee's initials, is a symbol of particular significance in the history of occult philosophy, his Hieroglyphic Monad or London Seal of Hermes, composed of the symbols that represent the seven planets of the Ptolemaic cosmos in astronomy and astrology and the seven metals of transmutational

³² Shumaker, *John Dee on Astronomy*, 198–99. Cf. S. J. Tester, *A History of Western Astrology* (Woodbridge: The Boydell Press, 1987; reprint 1999), 18 n. 16: Χωρίς γὰρ τῆς κοσμικῆς συμπαθείας, τοῖς ἀνθρώποις οὐδὲν γίνεται: “nothing happens to man outside, apart from, the cosmic sympathy.”

³³ Cf. J. L. Ideler, ed., *Physici et medici in Graeci minores* (Berlin, 1841), vol. 1, 396. Translations of this text were included in the second edition of Culpeper's *Astrological Judgement of Diseases* (1655) and Lilly's *Christian Astrology*. See Graeme Toby, *Culpeper's Medicine: A Practice of Western Holistic Medicine. New Edition* (London: Singing Dragon, 1997; repr. 2013), 162.

³⁴ Shumaker, *John Dee on Astronomy*, 132. Alexandre G. Mitchell, *Greek Vase-Painting and the Origins of Visual Humour* (Cambridge: Cambridge University Press, 2009), 243.

³⁵ Shumaker, *John Dee on Astronomy*, 184. Bk. 1, chap. 5 Ptolemy: *Τῶν πρὸς Σύρον ἀποτελεσματικῶν*. See Claudius Ptolemaeus, *ΑΠΟΤΕΛΕΣΜΑΤΙΚΑ*, ed. W. Hübner (Stuttgart and Leipzig: B.G. Teubner, 1998).

³⁶ Shumaker, *John Dee on Astronomy*, 190, Aphorism 50. See Claudius Ptolemaeus, *Opera quae exstant omnia*, ed. Franz Boll and Emilie Boer (Stuttgart and Leipzig: B.G. Teubner, 1947), vol. 3, pt 2, 48.

³⁷ Shumaker, *John Dee on Astronomy*, 198; Alexander of Aphrodisias, *Ad Imperatores De Fato et de eo quod in nostra potestate est* (Zurich, 1824), chap. XXV, 78/80.

³⁸ Shumaker, *John Dee on Astronomy*, 189: “amplissimam ... viam, ad perfectam Astrologiae sapientiam, sternes.”

³⁹ Shumaker, *John Dee on Astronomy*, 197, Aphorism XCVIII: “Sapiens ... nobilissimam Scientiam haurire potest: sive de prosperis procurandis, sive removendis noxiis: vel e contra: tam sibi quam aliis.”

⁴⁰ Neither of the other works has its own cover page, indeed they appear in a different sequence from that given on the title page, with Wolf's work preceding that by Leowitz, which starts on sig. D2r. Dee's work begins with new pagination.

alchemy.⁴¹ Although Dee claims that it was first conceived in 1557,⁴² the Hieroglyph's first appearance in public was on this very page, where it stands enclosed in a cartouche and flanked by a scroll which announces,

ΣΤΙΑΒΩΝ [*Stilbôn*] *acumine praeditus est instar omnium planetarum.*
[Mercury, endowed with a sting is the form of all the planets.]⁴³

In light of Dee's tendency to play with words, numbers, and signs, suggestive of readings on different levels, a slight pun is likely here: playing on the word *Acumen* as point, hook, sting, and mental shrewdness – divine Mercury being, after all, the herald of the gods.⁴⁴ There is certainly a sting in the motto beneath the arch of his monument, Dee's irascible challenge: "He who does not understand should either be silent or learn."⁴⁵

Those who *had* some learning would probably have known the term *Stilbôn*, one of the Greek names for the planet Mercury, which literally translates as the "Gleaming" or "Glittering One," from Cicero's *On the Nature of the Gods*, Aristotle's *On the World*, or indeed from Isidore of Seville's *Etymologies*.⁴⁶ The astrologically inclined would have found it in Martianus Capella's fifth-century *De Nuptiis Philologiae et Mercurii* (On the Marriage of Philology and Mercury) or the *De Astronomia* of Gaius Julius Hyginus (ca. 64 BCE–17 CE).⁴⁷ In light of Dee's evident fascination with hieroglyphs and the symbols representing both planets and metals, as well as his knowledge of Greek, it is possible that he was aware of the suggested derivation of the astrological and alchemical sign for Mercury from the first two letters of the Greek for *Stilbôn*.⁴⁸

The rays emanating from this hieroglyphic Monad anticipate Dee's statement in the *Propaedeumata*'s fourth aphorism, that,

III. Whatever exists by action emits spherically upon the various parts of the universe rays which, in their own manner, fill the whole universe.⁴⁹

⁴¹ French, *John Dee*, 66, 78. Dee's hieroglyph has been discussed many times. For analyses of the hieroglyph, see Josten, "A Translation"; M. T. Walton, "John Dee's *Monas Hieroglyphica*: Geometrical Cabala," *Ambix* 23 (1976): 116–23; Nicholas H. Clulee, "The *Monas Hieroglyphica* and the Alchemical Thread of John Dee's Career," *Ambix* 52 (2005): 197–215; Clulee, *John Dee's Natural Philosophy*, Part Two.

⁴² Josten, "A Translation," 86.

⁴³ Cf. Shumaker, *John Dee on Astronomy*, 103: "Mercury, endowed with a sting, is like all the planets."

⁴⁴ On the complex mythological, astrological and alchemical identifications of Hermes/Mercury, see Antoine Faivre, *The Eternal Hermes: From Greek God to Alchemical Magus*, trans. Jocelyn Godwin (Grand Rapids, MI: Phanes Press, 1995).

⁴⁵ Josten, "A Translation," 112–13: "Qui non intelligit, aut taceat, aut discat." The phrase even makes it into fiction. See John Crowley, *Daemonomania* (Woodstock and New York: The Overlook Press: 2000; repr. 2008), 48: "If you don't get it, shut up or go figure."

⁴⁶ Cicero, *De Natura Deorum* 2, 20, 53; Plutarch *De facie* 925a; Aristotle, *De mundo* 2 392a23.

⁴⁷ Martianus Capellus, *De nuptiis*, 8 851; Hyginus *Astr.* 2, 42 fin. See Bruce Eastwood and Gerd Grasshoff, *Planetary Diagrams for Roman Astronomy in Medieval Europe CA. 800–1500* (Philadelphia: American Philosophical Society, 2004), vol. 94, pt 3, 126: "Sed idem Stilbon, licet Solem ex diversis circulis continetur, ab eo tamen numquam ultra XXII (Ms. XXXII) partes poterit aberrare nec duobus signis absistere, nunc praeteriens, nunc consistens aut certe regrediens" ("This same Stilbon, though it accompanies the Sun in its varied epicycles, will never be able to depart from the Sun by more than 22 (Ms. 32) degrees of elongation; never will it be able to be two signs away, as at times it passes by the Sun, then comes to a halt, and then retrogresses").

⁴⁸ E. J. Holmyard, *Alchemy* (Harmondsworth: Penguin, 1957; repr. 1968), 154.

⁴⁹ Shumaker, *John Dee on Astronomy*, 122–23: "Quicquid Actu existit, Radios orbiculariter ei aculatur in singulas mundi partes, qui universum mundum suo modo replent."

The primary recipients of these rays can be seen to be the Sun and Moon on the columns, to either side of the *Monad*. Dee informs us of their significance in aphorisms 103 and 104:

CIII. The Moon is the most powerful governess of moist things: it is the arouser and producer of humidity.⁵⁰

CIIII. [A] special dominion over vital heat accompanies the Sun's excellent light.⁵¹

Their primary importance in astrology is reinforced a few lines down:

CVI. From these considerations, it is manifest that the Sun and Moon are, after God, the chief and truly physical causes of the procreation and preservation of all things that are born and live in the elemental universe.

To use the words of our philosopher [Ptolemy], "Everything is compounded and made to increase," by heat and moisture.⁵²

Hence, of course, the rays reaching up to the tops of both columns of the triumphal arch, to the two elemental qualities: *Calidum* (Hot), i.e. solar heat, and *Humidum* (Moist), lunar moisture. Two other rays reach down to the base of the columns, to the small images representing *Terra* and *Aqua* (Earth and Water). Thus we have the four traditional elements of natural philosophy, plus the sense of the Moon as mistress of moisture, so important for the theory and practice of iatromathematics, where the zodiacal position of the moon determines, for example, the time for bloodletting or for administering purgatives.⁵³

Given the focus of the *Propaedeumata* on the powers of the stars, the curved pediment overhead is fittingly adorned with the stars of the firmament, and on the base of the archway scriptural warrant is provided for this interest in astrology with a biblical quotation from Luke 21:25: "And there shall be signs in the Sun, and in the Moon, and in the Stars." This verse was common parlance amongst astrologers during the Renaissance and Reformation, introduced in the context of apocalyptic natural phenomena, anticipating the second coming and the end of days.⁵⁴

⁵⁰ Shumaker, *John Dee on Astronomy*, 184–85: "LUNA, potentissima est humidarum rerum moderatrix: humiditatisque excitatrix & effectrix."

⁵¹ Shumaker, *John Dee on Astronomy*, 184–85: "Solis excellentem LUCEM, praecipuum vitalis caloris moderamen comitatur."

⁵² Shumaker, *John Dee on Astronomy*, 184–85: "SOLEM & Lunam omnium in elementalī mundo nascentium & viventium, tum procreationis tum conservationis, praecipuas (post Deum) & vere physicas esse causas, ex his fit manifestissimum. Per Calidum enim & Humidum, πάντα συγκρίνεται καὶ αὔξεται, (ut philosophi nostri verbis utar)."

⁵³ See Hiro Hirai, "The New Astral Medicine," in *A Companion to Astrology in the Renaissance*, ed. Brendan Dooley (Leiden: Brill, 2014), 267–86; Monica Azzolini, "Reading Health in the Stars: Politics and Medical Astrology in Renaissance Milan," in *Horoscopes and Public Spheres: Essays on the History of Astrology*, ed. Günther Oestmann, H. Darrel Rutkin, and Kocku von Stuckrad (Berlin: Walter de Gruyter, 2005), 183–205.

⁵⁴ See Dooley, ed., *Companion to Astrology*, 11; Robin B. Barnes, *Astrology and Reformation* (Oxford: Oxford University Press, 2016), chap. 3; Geneva, *Astrology and the Seventeenth-Century Mind*, 213.

Est in Mercurio

Nothing, however, is ever simple with Dee, for it quickly becomes apparent that his hieroglyphic Monad, and by extension the whole of the *Propaedeumata*, is a polysemous text, to be read on more than one level. A reader familiar with alchemical works would not have been surprised to learn of Dee's association of the hieroglyphic Monad with the art of transmutation. This is clearly indicated on the title page by the phrase "Est in hac Monade quicquid quaerunt sapientes." Here, in his declaration, "There is *in this Monad* whatever the Wise men seek," Dee is paraphrasing the alchemical aphorism: "Est in Mercurio quicquid quaerunt sapientes," that is, "There is *in Mercury* whatever the Wise men seek," with Mercury or Quicksilver symbolising the primal (and ultimate) matter of the Philosophers' Stone. The phrase was a favourite of many well-known figures in the history of alchemy: including pseudo-Raymund Lull, Bernard Trevisan, and Michael Maier (1568–1622), as well as those who, like Dee, were involved in both astronomy and alchemy, such as Tycho Brahe (1546–1601).⁵⁵

We know from Dee's own account that he read a vast amount of alchemical literature in the years preceding the composition of the *Propaedeumata*.⁵⁶ He acquired his first alchemical text in 1551, and in 1556 recorded a list of no fewer than fifty-five "alchemical authors I read during July."⁵⁷ It is an impressive list and immediately provides us with sources for the "Est in Mercurio" quotation, which can be found, for example, in the *Clangor Buccinae* (The Trumpet's Clangour), a work included in the 1550 collection *De alchimia opuscula complura veterum philosophorum* (Several Little Works of the Ancient Philosophers about Alchemy).⁵⁸ The two-volume *De alchimia* is best known for including the famous sequence of alchemical images in the *Rosarium Philosophorum* (Rose-Garden of the Philosophers), which analogically represent alchemical operations through both the passionate love, union, death, and regeneration of the Sun and Moon and the mysteries of Christian religion: Christ's resurrection and the Coronation of the Virgin.⁵⁹ Dee shows that he read the *Rosarium* in July 1556, most likely this edition, which appears in his library catalogue.

⁵⁵ [Pseudo] Raymund Lull, *Testamentum & primum de Theoria*, in *Theatrum chemicum*, ed. Eberhard Zetzner (Strasbourg, 1659), vol. 4, 92: "Est in Mercurio quicquid quaerunt sapientes, nam sub umbra ejus latet substantia quinta: nam ejus substantia est pura & incombustibilis"; Bernardus Trevisanus, *De chymico miraculo, quod Lapidem philosophiae appellant* (Basel, 1583), 125–26: "Autoris incogniti. Est in mercurio quicquid quaeritur, ex quo corpus, spiritus, & anima trahitur, unde purissima & mundissima tinctura provenit"; Michael Maier, *Viatorium* (Frankfurt, 1618), 15; Tycho Brahe, *Astronomiae instauratae progymnasmatia* (Frankfurt, 1610), 150.

⁵⁶ Clulee, "Astrology, Magic and Optics – Facets of John Dee's Early Natural Philosophy," *Renaissance Quarterly* 30 (1977): 632–80, at 635.

⁵⁷ Clulee, "Alchemical Thread," 198. See Julian Roberts and Andrew G. Watson, *John Dee's Library Catalogue* (London: The Bibliographical Society, 1990), 191–93: "Aethores Alchymici quos perlegi anno 1556, a mense Julij," in Oxford, Corpus Christi College MS 191, fols. 88v–90r.

⁵⁸ *De alchimia opuscula complura veterum philosophorum* (Frankfurt, 1550), vol. 1, includes the *Clangor*. See fol. 28v: "Est in & in eo sunt omnia metalla ut dicunt Philosophi. Versus. Mercurio quicquid quaerunt sapientes. Nam sub umbra sua viget haec substantia quinta."

⁵⁹ *De alchimia opuscula* (1550), vol. 2: *Rosarium philosophorum. Secunda pars alchimiae de lapide philosophico vero modo praeparando, continens exactam eius scientiae progressionem. Cum figuris rei perfectionem ostendentibus*, (Frankfurt, 1550), sigs. [Xiiij]v (Androgyne); [Ziij]v (Virgin); [aiv]r (Christ).

“Est in Mercurio” is quoted in another work in Dee’s catalogue, Janus Lacinius’s *Praeciosa ac Nobilissima Artis Chymiae Collectanea De Occultissimo ac praeciosissimo Philosophorum Lapide* (A Precious and Most Noble Collection of the Art of Chymistry Concerning the Most Hidden and Most Precious Philosophers’ Stone).⁶⁰ The Calabrian Franciscan Janus Lacinius (Giano Lacinio) was already a popular name among alchemy enthusiasts for his 1546 edition of Petrus Bonus’s fourteenth-century *Pretiosa margarita novella* (New Pearl of Great Price), which contained the first printed alchemical image cycle, and which Dee evidently also read in July 1556.⁶¹ Bonus’s argument that alchemy, encompassing far more than metallic transmutation in the natural laboratory, was “partly natural and partly divine or supernatural,” that the Stone could only be known through divine inspiration or revelation, and that the alchemist should be a “pious illuminé,” would probably have appealed to Dee, who sustained his interest in the physico-chemical operations of laboratory alchemy alongside the practice of scrying in order to gain knowledge and advice from angels and spirits.⁶² On a visual level, it is also possible that Bonus’s diagrams in the *Pretiosa margarita novella* influenced the design of Dee’s hieroglyph, especially the image of the elemental qualities on the cross of matter (Figure 4) and the curious rod-like trees of the seven metals (Figure 5).

Dee may well have been happy with Sutton’s edition of the *Propaedeumata*. He may also have been pleased to see Sutton publish, the following year, *The Secretes of the Reverende Mayster Alexis of Piemount*,⁶³ and an *Almanacke for the yeare 1559, composed by Mayster Mych. Nostrodamus Dr. of Phisicke* (London, 1559), even if Sutton tarnished his reputation by being fined four shillings in 1561 for printing it without license.⁶⁴ I doubt whether the earnest Dr Dee would have been as impressed, however, with subsequent publications. In 1560 Sutton published the *Antiprognosticon contra inutiles astrologorum praedictiones, Nostrodami, Cuninghami, Loui, Hilli, Vaghami, et reliquorum omnium* of the English Puritan controversialist William Fulke (1538–89), followed in 1561 by an English translation: *Antiprognosticon, that is to saye, an invective agaynst the vayne and*

⁶⁰ Janus Lacinius, *Praeciosa Ac Nobilissima Artis Chymiae Collectanea De Occultissimo ac praeciosissimo Philosophorum lapide* (Nuremberg, 1554), 28: “Est in Mercurio quicquid quaerunt sapientes. Nam sub umbra sua viget haec substantia quinta, propter hoc, quia sua media substantia ut dicit Geber est incombustibilis. Nam illa quinta substantia, quae est in hoc Mercurio Philosophorum, figitur, & mutatur, quod ignem sustinet, & non fugit, sed perseverat in eo.”

⁶¹ Petrus Bonus, *Pretiosa margarita novella de thesavro, ac pretiosissimo philosophorum lapide*, ed. Giano Lacinio (Venice, 1546). See Chiara Crisciani, “The Conception of Alchemy as Expressed in the *Pretiosa Margarita Novella* of Petrus Bonus of Ferrara,” *Ambix* 20 (1973): 165–81, at 173. From Dee’s library catalogue we know he had a 1557 edition.

⁶² On Bonus as a “pious illumine” see Tara Nummedal, *Alchemy and Authority in the Holy Roman Empire* (Chicago: University of Chicago Press, 2007), 46; Lawrence M. Principe, *The Secrets of Alchemy* (Chicago: University of Chicago Press, 2013), 68; Wouter Hanegraaff, *Esotericism and the Academy: Rejected Knowledge in Western Culture* (Cambridge: Cambridge University Press, 2012), 198.

⁶³ *The secretes of the reuerende Mayster Alexis of Piemount: Conteinyng many excellent remedies agaynst dyuers diseases, woundes, and other accidents, with the manner to make distillations, parfumes, confitures, dyinges, colours, fusions, and meltynge*, trans. Wyllyam Warde (London: Henry Sutton, 1559).

⁶⁴ Ames, *Typographical Antiquities*, vol. 4, 486–87.

unprofitable predictions of the astrologians, as Nostradame, &c. Dee, who was concerned about possible slights to his reputation for most of his life, perhaps felt encouraged to consider a change of publisher.

Silvius and the *Devises héroïques*

Whatever may have been the case with Sutton, Dee's next major endeavour, another work bearing a Greek title – albeit not in Greek characters – the *Monas Hieroglyphica* was published not in London, but over the English Channel in the Low Countries city of Antwerp.⁶⁵ As a work of typography, the *Monas* is a much more sophisticated piece of work than the *Propaedeumata* and it is easy to see how publications issuing from Willem Silvius's print-shop, at the very beginning of his career as a publisher, would have caught Dee's eye: works like the beautifully illustrated 1563 *Princelijcke Devijsen*, Silvius's Dutch translation of the *Devises héroïques* (Heroic Devices, 1551; 1557) of the French emblemist Claude Paradin (1510–73).⁶⁶ As an alchemist, Dee would surely have been attracted to the images of the Golden Fleece and the Phoenix; as a Christian Cabalist, to the device bearing the Hebrew divine name EL; and as both, to the image of the brazen serpent on the Cross, from Numbers 21:9.⁶⁷

Paradin's popular work had, of course, been published in French and Latin editions by the Plantin Press in 1561 and 1562.⁶⁸ It is clear that Silvius's work continued to appeal to Dee long after the publication of the *Monas*, for we find in his library catalogue that he had a 1577 French edition of Nicolas de Nicolay's *Navigations*, which the enterprising Silvius published in no fewer than four languages.⁶⁹

Hieroglyphic monad

Having looked at the title page of the *Propaedeumata Aphoristica*, let us now consider that of the *Monas Hieroglyphica*, published six years later in 1564 (Figure 6). While the *Propaedeumata* essentially implied two levels of reading, that is, the astrology and alchemy of “superior” and “inferior” astronomy, in the *Monas* Dee explicitly states at the start of his twenty-four theorems that there are four levels of exegesis: it is “*Mathematicè, Magicè, Cabalisticè, Anagogicèque explicata.*” With the word *Mathematicè*

⁶⁵ On Antwerp, see Jeroen Puttevils, *Merchants and Trading in the Sixteenth Century: The Golden Age of Antwerp* (Abingdon: Routledge, 2015).

⁶⁶ On Silvius, see “Willem Silvius' Remarkable Start, 1559 to 1562,” in *Dutch Typography in the Sixteenth Century: The Collected Works of Paul Valkema Blouw*, ed. Paul Valkema Blouw and A. R. A. Croiset van Uchelen (Leiden: Brill, 2013), 415–54, at 416 n. 4. At the beginning of his career as a publisher, Silvius translated the *Devises héroïques* of Claude Paradin: *Princelijcke devysen* (Antwerp, Willem Silvius, 1562–63).

⁶⁷ No copy of Paradin's *Devises* is recorded in Dee's Catalogue, although he does have a copy of Paradin's *Alliances Genealogiques des Rois et Princes de Gaule* (Lyon: Jean de Tournes, 1561).

⁶⁸ Alison Saunders, *The Seventeenth-Century French Emblem: A Study in Diversity* (Geneva: Librairie Droz, 2000), 13.

⁶⁹ Blouw and van Uchelen, *Dutch Typography in the Sixteenth Century*, 416 n. 4. Silvius published Nicolas de Nicolay's *Les Navigations* in four languages. Dee had a 1577 Antwerp copy of the French translation: see Roberts and Watson, *John Dee's Library Catalogue*, entry 415.

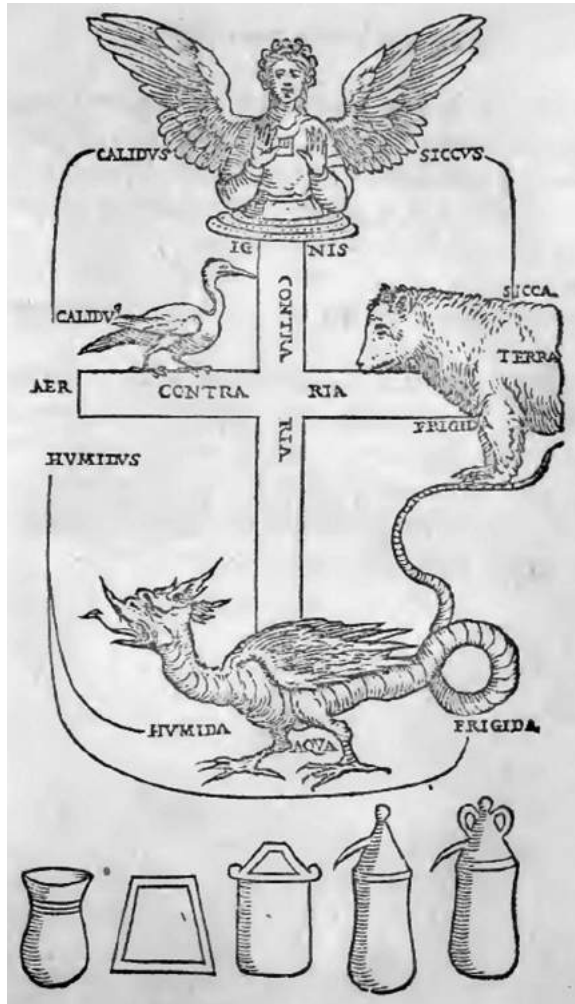


FIGURE 4 Petrus Bonus, *Pretiosa margarita novella* (Venice, 1546), sig. [**viii]r: elemental qualities. Courtesy of the Ritman Library, Amsterdam.

we should bear in mind not just Dee's interest in Pythagorean arithmosophy, but the host of arts and sciences he associated with mathematics in the "Ground-plat of Mathematicks" included in his *Mathematicall Praeface*.⁷⁰

⁷⁰ Josten, "A Translation," 155; Dee, *Monas*, 12r. Dee's tendency to read texts on multiple levels resurfaces in his *Compendious Rehearsal*, written in 1592, where he recalls giving lessons in Paris in 1550, on "Euclide's Elements Geometricall, Mathematicè, Physice et Pythagoricè." See *Autobiographical Tracts of Dr. John Dee, Warden of the College of Manchester*, in *Remains, Historical and Literary, Connected with the Palatine Counties of Lancaster and Chester*, 24, ed. James Crossley (Manchester: Printed for The Chetham Society, 1851), 1-45, at 7. See also Jean-Marc Mandosio, "Des 'mathématiques vulgaires' à la 'monade hiéroglyphique': Les *Éléments* d'Euclide vus par John Dee," *Revue d'histoire des sciences* 56 (2003): 475-91, at 477; Jennifer M. Rampling, "The Elizabethan Mathematics of Everything: John Dee's 'Mathematicall Praeface' to Euclid's *Elements*," *BSHM Bulletin: Journal of the British Society for the History of Mathematics* 26 (2011): 135-46.

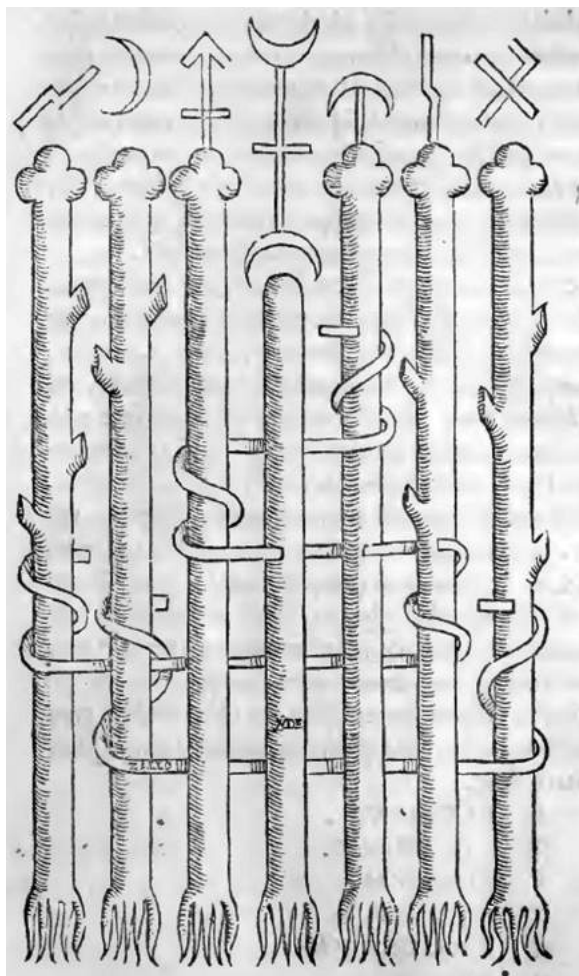


FIGURE 5 Petrus Bonus, *Pretiosa margarita novella* (Venice, 1546), sig. [**iii]r: trees of the seven metals. Courtesy of the Ritman Library, Amsterdam.

One possible reason for this explicit engagement with additional levels of reading, including the cabalistic, is that in 1559 Dee received the Venetian alchemist Giovanni Agostino Pantheo's novel combination of alchemy and Cabala, the *Voarchadumia contra alchymiam* (Voarchadumia against Alchemy; Venice, 1530) as a gift from Giovanni Battista Agnelli (*fl.* 1560–77), another Venetian alchemist living in London.⁷¹ This copy survives in the British Library, with extensive annotations by Dee, including the discovery that his name, calculated in the values of one of the *Voarchadumia*'s occult alphabets, the “transitus fluvii” (Crossing of the River)

⁷¹ Giovanni Agostino Pantheo, *Voarchadumia contra alchymiam* (Venice, 1530); see Clulee, “Alchemical Thread,” 201. For more, see Peter J. Forshaw, “Cabala Chymica or Chemia Cabalistica – Early Modern Alchemists and Cabala,” *Ambix* 60 (2013): 361–89, esp. 371–76.



FIGURE 6 John Dee, *Monas Hieroglyphica* (Antwerp, 1564), frontispiece. Courtesy of the Ritman Library, Amsterdam.

adds up to the highly significant cabalistic number seventy-two, associated with the seventy-two names of God, seventy-two angelic powers, and so forth.⁷²

Some architectural elements in the *Monas* title page are the same, or similar, to those on the *Propaedeumata* title page. We again have a triumphal arch, serving as a grand entrance into the book, again surmounted by the stars of the firmament, beneath which appears the same irascible advice on the entablature's frieze to be silent or learn. A biblical verse again stands at the foot of the archway, but this time, rather than the New Testament reference to the stars in Luke's Gospel, it is a verse from the Old Testament, Genesis 27:28, Isaac's blessing to Jacob: "May God give thee of the dew of heaven and of the fat of the earth."⁷³ This verse was popular with

⁷² Valentina Izmirlieva, *All the Names of the Lord: Lists, Mysticism, and Magic* (Chicago: University of Chicago Press, 2008), 109: "The Emphasis on 72"; Johann Reuchlin, *On the Art of the Kabbalah*, trans. Martin and Sarah Goodman (Lincoln: University of Nebraska Press, 1983), 267. Similar Kabbalistic ideas can also be found in the alchemical *Aureum Vellus* in *Theatrum Chemicum, praecipuos selectorum auctorum tractatus de chemiae et lapidis philosophici antiquitate ...*, ed. Heirs of Lazarus Zetzner (Strasbourg, 1660), vol. 5, 407.

⁷³ "De rore caeli, et pinguedine terrae, det tibi Deus." According to Glyn Parry, Dee presented Landgrave Wilhelm of Hessen-Kassel with his new Latin pamphlet, "About God's Secrets and Mighty Works, called in the Apocalypse Alpha and Omega," the first page of which bore Dee's Hieroglyphic Monad, with the same alchemical verse from Genesis 27:28 that appeared on the title page of the *Monas*; Parry, *Arch-Conjuror of England*, 195. Dee would probably have been familiar with the alchemo-cabalistic reflections of the Franciscan friar Francesco Giorgi (1466–1540)

alchemists,⁷⁴ who generally interpreted it as speaking of the two main medieval ingredients of the Philosophers' Stone: watery Mercury of the Philosophers, as the dew of heaven, and fiery, unctuous Sulphur, the fat of the earth. Dee would have been able to find a description of Sulphur as the fat of the earth in that most famous of medieval authorities on laboratory alchemy, Geber's *Summa Perfectionis*, published, for example, in Guglielmo Gratarolo's *Verae alchemiae artisqve metallicae, citra aenigmata, doctrina* (The Not-so-Enigmatic Doctrines of True Alchemy and the Metallic Art), which, needless to say, he had in his library.⁷⁵ As on the *Propaedeutumata* title page, the Sun and Moon are prominent on the framing pillars, this time, though, with the words for the elements Fire and Air above, and pictures for Earth and Water below.

The Greek word *Stilbôn* recurs, contained within a ribbon entwined around the Hieroglyphic Monad, though in a slightly different phrase from that in the *Propaedeutumata*. Here we read "ΣΤΙΛΒΩΝ [*Stilbôn*] acumine stabili consummatus, omnium planetarum parens, et rex fit," that is, "Mercury becomes the parent and king of all the planets when made perfect by a stable pointed hook."⁷⁶ It is difficult to imagine nowadays how provocative this must have sounded, but the claim that Mercury becomes ruler and parent of all the other planets would have sounded outrageous to any astronomer. Johannes Kepler, for instance, would immediately argue that the "Rex Planetarum" is the Sun.⁷⁷ Admittedly, if we take Dee to be talking about both superior and inferior astronomy, i.e. astrology and alchemy, the statement sounds less extreme. Taking *Stilbôn* as alchemical Quicksilver or Mercury of the philosophers, the primal matter and hence parent of all metals, would make perfect sense to alchemically literate readers. The fact that this Mercury is made stable or fixed by the pointed hook of fiery Aries would also accord well with at least some alchemical literature, with fiery sulphur participating in the fixation of primal mercury into the sought-after gold.⁷⁸

⁷³ *Continued*

concerning this verse in *De harmonia mundi* (Venice, 1525), II, 7, iv and xviii, where he interprets the dew as divine grace and as a symbol for the Tetragrammaton. See Frances A. Yates, *The Rosicrucian Enlightenment* (London: Routledge, 1972; repr. 2007), 45–46, where she points out that the Rosicrucian *Confessio Fraternitatis* (Kassel, 1615) first appears with a work based on Dee's *Monas Hieroglyphica*, the *Consideratio Brevis*, which includes the same verse from Genesis 27 on the verso of its title page. See *Rosarium Philosophorum* (1550), sig. [K.iiij]r for an image labelled "Ablutio vel Mundificatio," depicting the dew of heaven falling down on the alchemical hermaphrodite, with the words: "Hie felt der Tauw von Himmel herab/ Unnd wascht den schwartzen leyb im grab ab."

⁷⁴ See, for example, the *Mutus Liber* (1677), with its title page image of Jacob resting his head on a stone (by implication, the Philosophers' Stone), where Genesis 27:28 is printed in reverse. Susanna Åkerman notes the Danish alchemist Olaus Borrichius's discussion of Genesis 27: Susanna Åkerman, "Three Phases of Inventing Rosicrucian Tradition in the Seventeenth Century," in *The Invention of Sacred Tradition*, ed. James Lewis and Olav Hammer (Cambridge: Cambridge University Press, 2007), 158–76, at 169. See also Hermann Fictuld (ca. 1700–ca. 1777), *Abhandlung von der Alchymie, under derselben Gewißheit* (Erlangen 1754), 178.

⁷⁵ Geber, *Summa Perfectionis*, Lib I, *De Sulfure*, Cap: XXVIII, in *Verae alchemiae artisqve metallicae, citra aenigmata, doctrina*, ed. Guglielmo Gratarolo (Basel, 1561), 132: "Dicimus igitur quod sulfur est pinguedo terrae." See Roberts and Watson, *John Dee's Library Catalogue*, entry 1460.

⁷⁶ Josten, "A Translation," 113, slightly modified.

⁷⁷ Johannes Kepler, *Astronomi Opera omnia*, ed. Ch. Frisch (Frankfurt 1870), vol. 8, pt 1, 267: "Rex planetarum a motu, mundi Cor a virtute."

⁷⁸ See Principe, *Secrets of Alchemy*, 17, discussing Zosimos: "when the vapor of sulfur turns mercury into a solid, not only does the mercury lose its volatility and become fixed (that is, nonvolatile), but the sulfur also becomes fixed and remains combined with the mercury." See also Johann Joachim Becher, *Chymischer Glücks-Hafen* (1726), 387, "Figurirung auf den Mercurium."

We know that in the *Monas* its hieroglyph is explained as a combination of the symbol for the planet Mercury above and the zodiacal sign Aries below. The two horns of the ram Aries form the hook or point at the base of the hieroglyph. Aries, the first sign of the Fiery Triplicity in the zodiac, on one level stands for the fire of the alchemical Art of Fire.⁷⁹ Dee makes it clear that this is one thing that he has in mind in Theorem 10:

Theorem 10 We have added the astronomical sign of Aries, therefore, to signify that (in the practice of this monad) the aid of fire is required.

Dee possibly also had another popular motto of the alchemists in mind: “Ignis et Azoth tibi sufficient” (Fire and Azoth are enough for you).⁸⁰ Azoth is a code name for Philosophical Mercury, again yielding that combination of Mercury and Fire.⁸¹ A manuscript that once belonged to Dee, now in the Mellon Collection at Yale, shows those terms written in the margin in his hand.⁸² Yet another possible interpretation is that Aries stands for fiery Sulphur, in which case the two medieval ingredients of the Philosophers’ Stone are present in Dee’s hieroglyph.

Some alchemists, such as Dee’s younger contemporary Michael Maier, physician and counsellor to Emperor Rudolf II in Prague, had an interest in mythoalchemy, that is, in the interpretation of classical mythology as if it contained alchemical secrets. Such readers would doubtless make the association with the story of the Golden Fleece, with Aries being the Ram’s fleece, guarded by the Dragon, Mercury.⁸³ Although no convincing explanation has ever been offered for the numbers connected with the ribbon on the right hand side of the *Monas* title page, it is suggestive that the numbers one to four connect with the letters I – A – S – and N; indeed the number four appears above the two letters “ON,” allowing for the speculation that Dee is alluding to the well-known myth of Jason and the Argonauts. If so, could the pair of letters connected with the other numbers one and four below, that is A and V, be the initials of *Aureum Vellus*, that is, the Golden Fleece?⁸⁴

The *Monas Hieroglyphica* title page contains other new elements. One of the most obvious is the appearance of an oval, egg-shaped cartouche surrounding the hieroglyph, of significance to both astronomers and alchemists. In Theorem Eighteen, where Dee explicitly states that “celestial astronomy is like a parent and teacher

⁷⁹ See Peter J. Forshaw, “‘Chemistry, That Starry Science’: Early Modern Conjunctions of Astrology and Alchemy,” in *Sky and Symbol*, ed. Liz Greene and Nicholas Campion (Lampeter: Sophia Centre Press, 2008), 156, concerning “The Regimen of Fire.”

⁸⁰ See Wilhelm Kühlmann and Joachim Telle, eds., *Der Frühparacelsismus* (Berlin: Walter de Gruyter, 2013), pt 3, 607.

⁸¹ On Azoth as Quicksilver, see Martin Ruland, *Lexicon Alchemiae* (Frankfurt-am-Main, 1612), 96.

⁸² Yale University Library, Beinecke Rare Book and Manuscript Library, Mellon MS 12, “A Collection of alchemical texts attributed to Lull, with additional matter,” fol. 174r.

⁸³ On Maier in relation to this myth, see Hereward Tilton, *The Quest for the Phoenix: Spiritual Alchemy and Rosicrucianism in the Work of Count Michael Maier (1569–1622)* (Berlin: Walter de Gruyter, 2003), 224; Erik Lebenguth, *Hermetische Poesie des Frühbarock: Die “Cantilenaes intellectuales” Michael Maiers* (Tübingen: Max Niemayer Verlag, 2002), 92ff.

⁸⁴ For references to this mytheme, see Antoine Faivre, *The Golden Fleece and Alchemy* (Albany, NY: State University of New York Press, 1993).

to *Astronomia inferior*, i.e. alchemy,” we learn that “it is well known to astronomers that Mercury on his course in the ether performs an oval orbit.”⁸⁵

In the very same theorem, moving as it were from observatory to laboratory, Dee voices what sounds like a Paracelsian scorn for empirics, who lack theory, and literalists, who interpret all alchemical texts at face value, declaring that “the most wretched alchemists” may “hence take admonishment and learn to recognize their various errors. May those very inexperienced impostors in their desperation hereby understand what is the water of the white of eggs, what the oil from the yolks, and what the chalk of eggs and many more things like these.”⁸⁶ Notwithstanding his interest in the cosmological ideas of Copernicus, Dee provides a diagram of a particularly Ptolemaic – and inverted – cosmic egg, with the sun firmly in the centre, in the oil or yellow of the yolk, together with Venus and Mars, the planets most subject to its influence; and the rest of the planets, those most subject to a lunar influence placed in the watery white of the egg.⁸⁷ The symbolism, again, is fairly obvious: the white of the egg representing the aqueous mercurial moisture of the moon, the yolk the fiery sulphurous liquid or oil of the Sun. As for the chalky earthy shell, in Dee’s interpretation, that is dissolved by heat and subsequently compounded with the white and yolk by repeated “rotation.”⁸⁸

Another notable addition to the title-page is the introduction of zodiac signs. Above the Hieroglyphic Monad, a Crab represents Cancer, Dee’s own birth sign,⁸⁹ the sign ruled by the Moon, which is conveniently positioned immediately below the Crab, as the lunar “horns” of the hieroglyph (Figure 7, left). At the opposite, pointed end of the egg, close to the hieroglyph’s “pointed hook,” a Lion represents Leo, ruled by the Sun. This pairing of Lunar Cancer and Solar Leo symbolises the union of the Sun and Moon (Gold and Silver or Sulphur and Mercury in medieval alchemy). On the left is the Ram’s head, symbolising Aries and the sign in which the Sun is exalted. On the right is the Bull of Taurus, the sign in which the Moon is exalted. Dee emphasises the astrological significance of his hieroglyph, showing how it contains the signs for Aries and Taurus (Figure 7, right). Not all alchemists were astrologers, but a significant number did attempt to align their alchemical practices with the stars.⁹⁰ A clear instance of this is the *Mutus Liber* (“Silent Book”; La Rochelle, 1677), which includes an engraving of alchemists collecting celestial dew (Figure 8). In the heavens the Sun is visible, top

⁸⁵ Josten, “A Translation,” 177. See P. J. Zetterberg, “Hermetic Geocentricity: John Dee’s Celestial Egg,” *Isis* 70 (1979): 385–93. On the oval shape of Mercury’s deferent, see Willy Hartner, “The Mercury Horoscope of Marcantonio Michiel of Venice. A Study in the History of Renaissance Astrology and Astronomy,” in *Vistas in Astronomy*, ed. Arthur Beer, 2 vols (Oxford: Pergamon Press, 1960), vol. 1, 84–138, on 122.

⁸⁶ Josten, “A Translation,” 177.

⁸⁷ Stephen Johnston, “Like Father, Like Son? John Dee, Thomas Digges and the Identity of the Mathematician,” in *John Dee*, ed. Clucas, 65–84, on 75.

⁸⁸ Clulee, “Alchemical Thread,” 207; Federico Cavallaro, “The Alchemical Significance of John Dee’s *Monas Hieroglyphica*,” in *John Dee*, ed. Clucas, 159–76, on 167. See also H. J. Sheppard, “Egg Symbolism in Alchemy,” *Ambix* 6 (1958): 140–48.

⁸⁹ French, *John Dee*, 213.

⁹⁰ See Forshaw, “Chemistry, That Starry Science.”

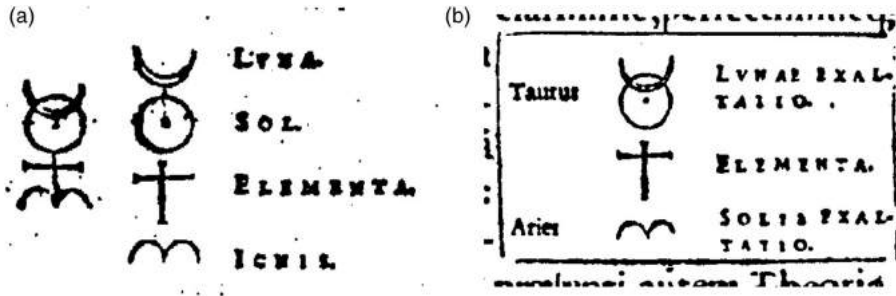


FIGURE 7 John Dee, *Monas Hieroglyphica* (Antwerp, 1564), fols. 13v and 15r: analyses of the Hieroglyphic Monad. Courtesy of the Ritman Library, Amsterdam.

left, and the Moon, top right, while on the ground, behind the alchemists, a Ram can be seen facing a Bull. This denotes the astrological exaltations of both luminaries, the Sun in Aries and the Moon in Taurus, when they are at the height of their powers, as the perfect time to commence the alchemical work.

Returning to the *Monas* title page, we have not one but two Mercuries reclining at the top of the image, above the hieroglyph. They represent two zodiac signs, both ruled by the planet Mercury: Gemini and Virgo.⁹¹ What Dee presents, then, is the sequence of the first half of the zodiac: Aries, Taurus, Gemini, Cancer, Leo, Virgo. Anyone familiar with astrology will recognise that these relate to the planets Sun, Moon, Mercury, Venus, and Mars, and related metals (gold, silver, quicksilver, copper, and iron), while realising that there are no zodiac signs connected with the two outermost planets of the Ptolemaic system, Jupiter and Saturn (alchemical tin and lead), which are conspicuous by their absence. Although Dee is silent about this, he is far more forthcoming about the significance of the two main luminaries, the Sun and Moon. In Theorem Fourteen he cites the *Emerald Tablet* attributed to Hermes Trismegistus:

Theorem XIII. It has already clearly been proved that this whole magisterial work depends upon the Sun and Moon, a fact of which a long time ago thrice great Hermes admonished us, when he asserted that the Sun is its father and the Moon its mother, and we know that it is nourished in Lemnian earth by lunar and solar rays which exert a singular influence around it.⁹²

Astrological speculation on the birth of a book

I would like to conclude with a little speculation concerning the influence of “lunar and solar rays” on the composition of the *Monas*, and why Dee so

⁹¹ It is tempting to argue that their placement in Dee’s title-page is a quiet joke shared between Dee and his printer, as an echo of Silvius’s own printer’s device with two cherubs lounging in a similar pose.

⁹² Lemnian earth was the most popular medicinal earth. Henry William Bristow, *A Glossary of Mineralogy* (London, 1861), 213: “We learn from Dioscorides that the Lemnian Earth was considered sacred, and that only the priests were allowed to meddle with it. They mixed it with goat’s blood, and then made it into cakes, upon which the impression of a seal was added, with great ceremonies.”

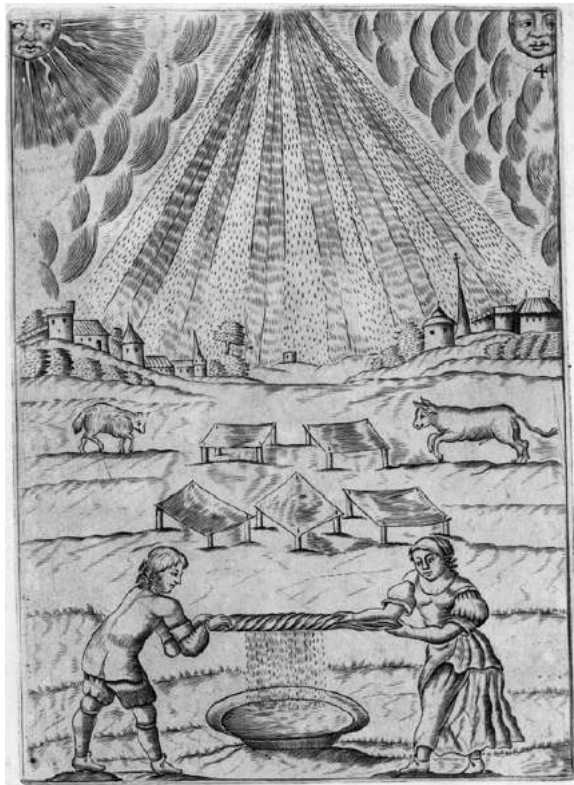


FIGURE 8 *Mutus Liber* (La Rochelle, 1677), plate 3: alchemists collecting dew. Courtesy of the Ritman Library, Amsterdam.

carefully noted the dates of the beginning and end of its composition.⁹³ At the conclusion of the work he says that he ended “his labours peacefully on the 25th day of January which he had begun on the 13th day of that month.”⁹⁴ Dee was a man steeped in astrology, and so specific a set of dates encourages consultation of an *Ephemeris* for the year 1564. Dee’s library catalogue shows that he possessed a copy of the 1557 edition of the *Ephemeridum Novum* of Cyprian Leowitz, author of the *Brevis et perspicua ratio* published with Dee’s *Propaedeumata* in 1558.⁹⁵

The data for the days in question is intriguing, at least. On the day that Dee started writing the *Monas*, 13 January 1564, the Moon was conjunct the Sun in Aquarius, and that conjunction was opposite a conjunction of Saturn and Jupiter in Leo.⁹⁶

⁹³ Josten, “A Translation,” 88.

⁹⁴ Josten, “A Translation,” 219.

⁹⁵ Roberts and Watson, *John Dee’s Library Catalogue*, entry 234.

⁹⁶ Sun 2° 59’ Aquarius; Moon end of Capricorn/beginning of Aquarius; Saturn and Jupiter both 2° Leo. For some sense of a great conjunction in Leo, see William E. Burns, “A Whig Apocalypse: Astrology, Millenarianism, and Politics in England during the Restoration Crisis, 1678–1683,” in *Millenarianism and Messianism in Early Modern European Culture*, ed. Richard H. Popkin and James E. Force (Dordrecht: Springer, 2001), vol. 3, 29–41, on 32–33.

The conjunction of the Sun and Moon is, of course, the symbol for the “Chemical Wedding,” and hence for the alchemical production of the Philosophers’ Stone.⁹⁷

The coming together of Jupiter and Saturn is immensely important in astrology, for it represents one of the “Great Conjunctions.” The theory of Great Conjunctions had reached the West through translations of the works of Arab philosophers, the most influential being the *De magnis coniunctionibus* (Concerning the Great Conjunctions) of the ninth-century astrologer Albumasar (Abu Ma’shar). His treatise presented the idea of a universal history couched in an astrological framework, where conjunctions of the two outermost planets in the Ptolemaic cosmos, Saturn and Jupiter, defined world ages. In Arabic astrology, Saturn and Jupiter are jointly responsible for religion, prophecy, empires, kingdoms, and dynasties.⁹⁸ Their conjunctions occur approximately every twenty years, cyclically effecting changes in religious beliefs, the rise and fall of empires, victories and losses in war.⁹⁹ Different events take place depending on the zodiac sign in which a particular conjunction occurs, and to which element the sign belongs.

Dee was definitely interested in this theory; indeed, he owned the 1564 *De coniunctionibus magnis insignioribus superiorum planetarum ... expositione* (Exposition on the Extremely Remarkable Great Conjunctions of the Superior Planets) by one of the most influential Renaissance exponents of this universal astrology, Leowitz. I cannot say, for sure, what might be the significance for Dee of a Great Conjunction in Leo, other than a rather glib suggestion that Leo was ruled by the Sun and hence symbolised philosophical Gold, or perhaps the completion of the “Operation of the Sun” mentioned in the final line of the *Emerald Tablet*. On a more profound level, the Islamic astrologer Masha’allah (ca. 740–815), in his *On Conjunctions, Religions, and Peoples*, argued that the Great Conjunction in Leo in 26 BCE heralded the rise of a new force: the birth of Christ and the emergence of Christianity.¹⁰⁰ Bearing in mind the inclusion on the *Propaedeumata*’s title page of the verse from the Gospel of Luke, often connected with the Second Coming, perhaps this adds further significance to the date. Could one implication of the absence of the planets Jupiter and Saturn from the *Monas* title page be that, in the *Monas*, they are to be understood less on an alchemical level than on an astrological or chronosophical level? It could also be that Dee wanted to place more overt emphasis on the conjunction of the Sun and Moon, while at the same

⁹⁷ Dee’s hieroglyphic monad in fact appears on the wedding invitation in the Rosicrucian *Chymische Hochzeit* (Strasbourg, 1616), 5.

⁹⁸ On Great Conjunctions, see Graziella Federici Vescovini, “The Theological Debate,” in *Companion to Astrology*, ed. Dooley, 99–140; Liana Saif, *The Arabic Influences on Early Modern Occult Philosophy* (London: Palgrave Macmillan, 2015), 9f.

⁹⁹ William Eamon, “Astrology and Society,” in *Companion to Astrology*, ed. Dooley, 141–91, on 181; Harkness, *John Dee’s Conversations with Angels*, 70.

¹⁰⁰ E. S. Kennedy and David Pingree, *The Astrological History of Masha’allah* (Harvard: Harvard University Press, 1971), 44, 72.

time making his readers wonder about the significant absence of the two outer planets.¹⁰¹

As for the date of the completion of the *Monas Hieroglyphica*, 25 January, the astrological aspects are at first glance less dramatic, with the Moon in a relatively benign sextile to Mars.¹⁰² If we look, however, at the positions of planets in signs rather than at the planetary relationships, and bear in mind the relationship between “superior” planets and “inferior” metals, we will see that Dee started writing his work when the Sun was in three degrees Aquarius and completed it when Mercury was in exactly the same position twelve days later. During the process of Dee’s writing, that celestial position of three degrees Aquarius had been occupied first by the Sun and Gold, then by Mercury – the symbol of Dee’s Hieroglyphic Monad.

Conclusion

Dee’s typographically elaborate frontispieces advertised themselves (and their author) as sophisticated, occult, and deeply learned in multiple fields of knowledge. Dee displayed his skills and showcased his abilities on many levels, particularly so in the *Monas Hieroglyphica*, with its claims to be “Mathematicè, Magicè, Cabalisticè, Anagogicèque explicata.” In intellectually synaesthetic combinations of humanist Greek, Pythagorean arithmosophy, Euclidean geometry, and Ptolemaic astronomy, conjoined with the arcane mysteries of alchemy, astrology, magic, and Cabala, he presented material that challenged his readers to puzzle out meaning from minutiae. These ranged from anatomised words and permutations of geometries, to letters that turn into numbers, and shapes that become sounds. Imaginative participation in (and speculation on) Dee’s ludic delight in such verbal and visual conceits helps us to read his polysemous frontispieces – and the works they introduce – as he, perhaps, intended. They also offer new insight into the inception and birth of the best known and most enigmatic work of a hermetic philosopher who reduced his name to a single letter, a number, a geometrical shape; in short, a monad: Δ.

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¹⁰¹ My thanks to the anonymous peer-reviewer who noted a parallel to Dee’s starting date for the work in Marsilio Ficino’s deliberate postponing of the publication of his translation of Plato until 1484, the year of another Great Conjunction. See James Hankins, *Plato in the Italian Renaissance* (Leiden: Brill, 1991, I, 301–4).

¹⁰² On the significance of Mars sextile Moon, see Wolfgang Hildebrand, *Ein new außserlesen Planeten-Buch* (Erfurt, 1613), sig. [liv]v: “An diesem Tage ist gut mit Beschlichshabern/ oder Häuptleuten des Krieges zu handeln/ mit Reutern und Landsknechten/ umbgehen/ und zuschicken. Item/ Kriegsvolk annemen/ unnd inn Krieg ziehen/ Musterung halten/ Faldtlager auffschlagen/ ist auch gut im Fewr arbeiten mit der Alchimey/ wer sie wol gelernet hat.”

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