

The Early Alchemical Reception of John Dee's *Monas Hieroglyphica*

PETER J. FORSHAW

Birkbeck College, University of London

Brian Vickers once described John Dee's *Monas Hieroglyphica* as “possibly the most obscure work ever written by an Englishman,” asking whether there were even ten references to it in the seventeenth century. This article considers Dee's reputation as an alchemist, in particular the reception of his *Monas Hieroglyphica*, in Latin, French, and German texts published in the late sixteenth and seventeenth centuries, and examines two themes: first, discussion of the *Monas Hieroglyphica* in the context of cabbalistic calculations and Pythagorean symbolic numbers; and second, references to, and appropriations of, the hieroglyphic monad in the context of chemical notation. It shows how Dee's work was read by alchemists influenced by Trithemius's exposition of the *Emerald Tablet*, including major promulgators of Paracelsian thought such as Gerard Dorn, Oswald Croll, Joseph Duchesne, and Heinrich Khunrath. The article also notes how the *Monas Hieroglyphica* appealed to purveyors of both physical and more theosophical forms of alchemy, such as the Rosicrucian *Chemical Wedding of Christian Rosencreutz*. It concludes with a discussion of the somewhat surprising approval of Dee's enigmatic work from one who was utterly antagonistic to Paracelsian and Rosicrucian philosophy, the chemist Andreas Libavius, who openly admitted to using the hieroglyphic monad as the basis for the ground plan for his ideal laboratory.

Twenty-six years ago, in an article on “Frances Yates and the Writing of History,” Brian Vickers, noting Yates's comment in *The Rosicrucian Enlightenment* that Francis Bacon “nowhere mentions Dee, and nowhere cites his famous *Monas hieroglyphica*,”¹ remarked, “Incidentally, ‘famous’ seems an extravagant claim. Dee's *Monas* is possibly the most obscure work ever written by an Englishman . . . How could we estimate its ‘fame’, then? Are there 1000 references to it in the seventeenth century? 100? Even ten?”²

In response to such a query, in this article I shall consider Dee's reputation as an alchemist, in particular the reception of his *Monas Hieroglyphica*, in works published in the late sixteenth and seventeenth centuries. Although the focus is primarily on alchemical works, reference will occasionally be made to interesting non-alchemical works that respond to Dee's book, which “mathematically, magically, cabbalistically, and anagogically” explains the various ways in which his hieroglyph can be analysed to reveal various levels of knowledge.

¹ F. A. Yates, *The Rosicrucian Enlightenment* (London: Routledge, 1972; repr. 1996), 122.

² B. Vickers, “Frances Yates and the Writing of History,” *Journal of Modern History*, 51 (1979): 287–316, on 308, n. 17.

As it is relatively easy for any English speaker to find references to Dee in English works, such as Raph Rabbard's 1591 edition of George Ripley's *The Compound of Alchymy*, where the "*Monas Hieroglyphica*" is praised as a book of English alchemy,³ and Elias Ashmole's collection of English alchemical poetry, the *Theatrum Chemicum Britannicum* (1652), which provides his alchemical testament to John Gwynn as well as information from Dee's diaries,⁴ here the focus will be on material from foreign language sources, in which a considerable number of references to Dee and his *Monas Hieroglyphica* can be found, both in individual texts and in the more widely available collections of alchemical works published in Latin, German, and French, such as Lazarus Zetzner's *Theatrum Chemicum* (1602; 1659–1661) and Jean-Jacques Manget's *Bibliotheca Chemica Curiosa* (1702).⁵ Zetzner's *Theatrum Chemicum* is the only collection to actually include a copy of Dee's *Monas Hieroglyphica*,⁶ but all the other major collections contain at least some references to Dee, with Friedrich Roth-Scholtz's *Deutsches Theatrum Chemicum* (1728–1730) even including his portrait facing the title page of Volume Three.⁷

Looking at the reception accorded to Dee, it becomes apparent that there are several different contexts, including his association with Edward Kelley, whose own alchemical works appear in several of the collections,⁸ and his reputation as a defender and promoter of the alchemical ideas of the thirteenth-century English natural philosopher Roger Bacon.

³ See Rabbard's prefatory Epistle to G. Ripley, *The Compound of Alchymy* (London: Thomas Orwin, 1591).

⁴ See E. Ashmole (ed.), *Theatrum Chemicum Britannicum; containing severall poetick pieces of our famous English philosophers, who have written the Hermetique Mysteries in their owne ancient language. Faithfully collected . . . with annotations thereon, by E. Ashmole* (London, 1652), 334 for the "Testamentum Johannis Dee Philosophi Summi ad Johannem Gwynn, transmissum 1568," and 478–84 regarding the horoscope Dee calculated for Kelley and information from his diaries.

⁵ L. Zetzner (ed.), *Theatrum Chemicum, praecipuos selectorum auctorum tractatus de chemiae et lapidis philosophici antiquitate, veritate, iure, praestantia et operationibus, continens*, 6 vols. (Strasbourg, 1659–1661); J.-J. Manget (ed.), *Bibliotheca chemica curiosa, seu rerum ad alchemiam pertinentium thesaurus instructissimus* (Geneva: Chouet, 1702).

⁶ C. H. Josten, "A Translation of John Dee's *Monas Hieroglyphica*," *Ambix* 12 (1964): 84–221 (Introduction, on 97). The *Monas Hieroglyphica* was printed in the first edition of the *Theatrum Chemicum*, II (1602), 203–43, with considerable mistakes in both text and diagrams. The same mistakes are repeated in the second edition of the *Theatrum Chemicum*, printed in Strasbourg (1659), where the text is found in II, 178–215.

⁷ F. Roth-Scholtz, *Deutsches Theatrum Chemicum, auf welchem der berühmtesten Philosophen und Alchymisten Schrifften, die von dem Stein der Weisen, von Verwandlung der schlechten Metalle in bessere, von Kräutern, von Thieren, von Gesundund Sauer-Brunnen, von warmen Bädern, von herrlichen Artzneyen und von andern grossen Geheimnissen der Natur handeln, welche bisshero entweder niemahls gedruckt, oder doch sonsten sehr rar worden sind, vorgestellt werden durch Friederich Roth-Scholtzen*, 3 vols. (Nuremberg, 1728–1730).

⁸ For the *Buch von dem Stein der Weisen* and *Via Humida, sive Discursus de Menstruo Vegetabili Saturni*, both attributed to Kelley, along with fragments from his letters, see the third volume of Roth-Scholtz, *Deutsches Theatrum Chemicum*. Ashmole's *Theatrum Chemicum*, 324–33, also includes poems entitled "Sir Edward Kelle's Worke" and "Sir Ed: Kelley concerning the Philosophers Stone." For an English translation of *The Stone of the Philosophers* and *The Theatre of Terrestrial Astronomy*, see A. E. Waite, *The Alchemical Writings of Edward Kelly* (London: James Elliot, 1893).

However, this article will be limited to just two themes: first, the reception of Dee's monad in Pythagorean and cabbalistic contexts; and second, references to, and appropriations of, it as a hieroglyph in the context of chemical notation.

In his article in this issue, Nicholas Clulee points out the influence of the German Benedictine Abbot, Johann Trithemius (1462–1516), pupil of the Christian cabbalist Johann Reuchlin, teacher of the young Theophrastus Paracelsus,⁹ mentor to Heinrich Cornelius Agrippa, and author of famous cryptographic works such as the *Steganographia* (1500),¹⁰ of which Dee was so delighted to have obtained a copy.¹¹ Trithemius was also the author of an exposition of that ur-text of the chemical art, the *Emerald Tablet* of Hermes Trismegistus, which was eagerly read by alchemists.¹² In a letter to his friend, the humanist Germain de Ganay, Trithemius explicitly equates the “One Thing” of the *Emerald Tablet* with the monad of Neo-Pythagorean natural philosophy.¹³ In that letter and in others to Joachim Margrave of Brandenburg, and Count Johannes von Westerberg, Trithemius emphasises that the numerical progression from the ternary and quaternary to the monad is the very foundation of magic — without a proper knowledge of these numbers, no man would be able to make powerful talismans, command spirits, or perform alchemical transmutations.¹⁴

One of the major propagators of Paracelsianism in the later sixteenth century, Gerard Dorn (c. 1530–1584), editor and translator of the German works of Paracelsus into Latin, whose own writings range from the construction of furnaces and the transmutation of

⁹ Walter Pagel, *Paracelsus: an Introduction to Philosophical Medicine in the Era of the Renaissance* (Basel: S. Karger, 1958), 9.

¹⁰ Noel L. Brann, *Trithemius and Magical Theology: a Chapter in the Controversy over Occult Studies in Early Modern Europe* (New York: SUNY Press, 1999).

¹¹ P. J. French, *John Dee: the World of an Elizabethan Magus* (London and New York: Routledge, 1972; repr. Ark Paperbacks, 1987), 52. “Dee was so excited about obtaining the cryptographical and magical *Steganographia* by the alchemist Trithemius, Abbot of Sponheim, that he spent ten straight days copying it.”

¹² W. R. Newman, *Gehennical Fire: the Lives of George Starkey, an American Alchemist in the Scientific Revolution* (Cambridge, Mass.: Harvard University Press, 1994; repr. 2003), 215–18.

¹³ The letter, dated 24 August 1605, is included in Johannes Trithemius, *De Septem Secvndeis, id est, intelligentijs, siue Spiritibus Orbes post Deum mouentibus, reconditissimae scientiae & eruditionis Libellus, Imperatori Caesari Diuo Maximiliano I. Aug. pio, sapienti dicatus. Adiectae sunt aliquot epistolae ex opere Epistolarum Io. Tritemij vtilißimae* (Cologne, 1567), 65–76. See also: W. Newman, “Thomas Vaughan as an Interpreter of Agrippa von Nettesheim,” *Ambix* 29 (1982): 125–40, on 129; and J. R. Partington, “Trithemius and Alchemy,” *Ambix* 2 (1938): 53–59, on 58, where the letter to de Ganay is cited.

¹⁴ See also: Trithemius, *De Septem Secvndeis* (1567), 81–100. “Domino Ioanni Vuesterburgh Comiti & Viro Desideriorum, de Tribus Naturalis Magi[ae] Principiis, Sine Quibus Nihil in Ipsa ad Effectum Produci Potest” (10 May 1503); and *De Septem Secvndeis* (1567), 100–116. “Ad Illustrissimum Dominu[m] D. Ioachim[u]m Marchionem Brandenburgensem de Rebus Conuenientibus Vero Mago” (26 June 1503). According to Josten, “A Translation of John Dee's *Monas Hieroglyphica*,” 108, Dee had a copy of these letters in J. Gohorry, *De Vsu & Mysterijs Notarum Liber. In quo vetusta literarum & numerorum ac diuinorum ex Sibylla nominum ratio explicatur* (Paris, 1550). A sixteenth-century manuscript in the Staatsbibliothek zu Berlin-Preussischer Kulturbesitz MS. Germ. fol. 904 [1573.], includes both Dee's *Monas Hieroglyphica* and Trithemius's letter to Westenbergh, “written about the three beginnings of all natural art and philosophy.”

metals,¹⁵ to the discussion of chemical remedies,¹⁶ and a treatise about the relationship between alchemy and meditation,¹⁷ was a virtual propagandist of Trithemius's cosmological interpretation of the *Emerald Tablet*.¹⁸ He devotes a whole work to his *Judgement of the Spagiric Art of Johann Trithemius*, where phrases such as "Let the binary be rejected and the ternary will be convertible to the simplicity of unity"¹⁹ contain terms also found in the *Monas Hieroglyphica*, such as when Dee writes in Theorem 20 of "the way proceeding along which, through Binary and TERNARY, Our MONAD is to be restored to its Oneness in a Purified QUATERNARY by the Ratio of Equality."²⁰

In a commentary to the *Tractatus Aureus* attributed to Hermes Trismegistus, while discussing a speech of his on how the ancient philosophers divided water into four parts,²¹ Dorn introduces the terms ternary, quaternary, septenary, and so forth, explaining that "in these numbers lie hidden the weights of the wise," especially in the septenary, whose power and virtue, he declares, should be contemplated "with the eyes of the mind, for the vulgar eye, as John Dee of London says, will here find fault and be most distrustful."²² This is a reference to a figure appearing at the end of Dee's *Monas Hieroglyphica*, that of a circle touching a line at a point (figure 1), where we see the words "Vulgaris, Hic, Oculus caligabit, diffidetque plurimum," rendered by Josten as "The vulgar eye will here be blind and most distrustful."²³

It seems likely, too, that Dorn's use of the same line and circle image to represent "Unarius" or "Oneness" in his *Monarchia Physica or Monarchia Triadis, in Unitate*, published together with his edition of Paracelsus's *Aurora Thesaurusque Philosophorum*

¹⁵ G. Dorn, *Congeries Paracelsicae Chemiae de Transmutationibus Metallorum . . . Genealogia Mineralium, atque Metallorum omnium* (Frankfurt, 1581); Zetzner, *Theatrum Chemicum*, I, 491–68.

¹⁶ G. Dorn, *Chymisticum artificium naturae, theoreticum et practicum* (Frankfurt, 1568–1569).

¹⁷ G. Dorn, "De Philosophia Chemica ad Meditativam comparata," in Zetzner, *Theatrum Chemicum*, I, 418–57.

¹⁸ Newman, "Thomas Vaughan," 130. For more on Dorn, see D. Kahn, "Les Débuts de Gérard Dorn," in *Analecta Paracelsica. Studien zum Nachleben Theophrast von Hohenheims im deutschen Kulturgebiet der frühen Neuzeit*, ed. J. Telle (Stuttgart: Franz Steiner Verlag, 1994), 59–126.

¹⁹ G. Dorn, "De Spagirico Artificio Io. Trithemii sententia," in Zetzner, *Theatrum Chemicum*, I, 388–99, on 393. "Rejiciatur itaque binarius, & ternarius ad unitatis simplicitatem convertibilis erit." See also G. Dorn, "De Duello Animi cum Corpore," in Zetzner, *Theatrum Chemicum*, I, 338. "Quaternarij & ternarij reductionis allegoria, Ut modò clarè vobis demonstrem imaginem reductionis ternarij ad unitatis simplicitatem, per abiectionem binarij: tum etia[m] qua ratione quaternarius per coniunctionem in ternario quiescere possit, & unà cu[m] eo particeps unionis fieri, notate."

²⁰ J. Dee, *Monas Hieroglyphica* (Antwerp, 1564), sig. E3v; Josten, "A Translation of John Dee's *Monas Hieroglyphica*," 185.

²¹ Manget, *Bibliotheca Chemica Curiosa*, I, 409. "Hermes: Scitote, filii sapientum, quod priscorum Philosophorum aquae est divisio, quae dividit ipsam in alia 4. Unum duobus, & tria uni: quorum colori tertia pars est, humori scilicet coagulanti: duae vero tertiae aquae sunt pondera sapientum."

²² Manget, *Bibliotheca Chemica Curiosa*, I, 409. "In his autem numeris tacitè occultari sapientum pondera, author non obscure abstruere, videtur, praecipue in septenario, qui numerus sacer habitus fuit antiquitus, utpote in quo plurimum sapientiae sit reconditum: sed vim & virtutem ejus mentis oculis contemplari debes, Vulgaris enim hic oculus, teste Joanne Dee Londinensi, castigabit diffidetque plurimum."

²³ Dee, *Monas Hieroglyphica*, 28r; Josten, "A Translation of John Dee's *Monas Hieroglyphica*," 219.

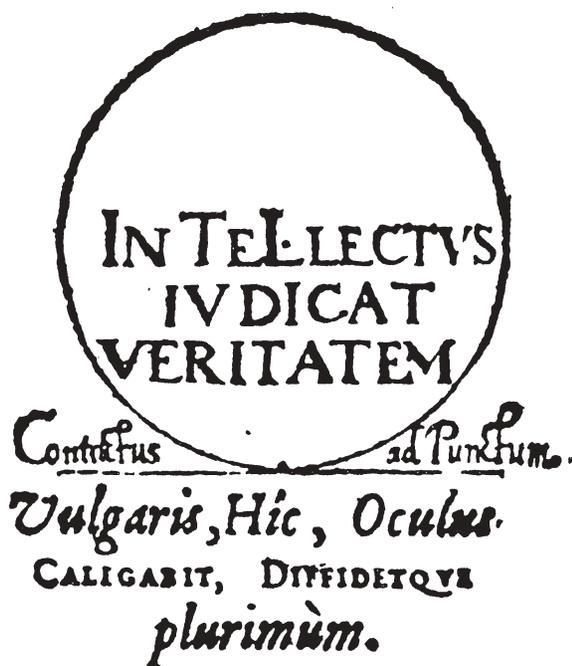


Fig. 1. From J. Dee, *Monas Hieroglyphica* (Antwerp, 1564), 28r.

(1577), was based on Dee's figure.²⁴ Nor is Dorn the only one inspired by this image, for it transpires that the English mathematician Thomas Oliver's *De Sophismatum praestigijs cauendis admonitio* (1604), which contains references to Dee and Paracelsus, also includes the same image. Oliver's phrases "The line touches the circle at a point" (*Recta tangit circulum puncto*) and "Intelligence seeing" or "Seeing with intelligence" (*Intelligentia videns*)²⁵ recall Dee's "Contracted to a Point" (*Contractus ad Punctum*) and "Intellect judges the truth" (*InTeLlectus iudicat veritatem*).²⁶ Oliver's comment slightly later in the

²⁴ G. Dorn, "Monarchia Triadis, in Unitate, Soli Deo Sacra," in *Aurora Thesaurusque Philosophorum, Theophrasti Paracelsi, Germani Philosophi, & Medici prae cunctis omnibus accuratissimi*, ed. G. Dorneus (Basel, 1577), 65–127, on 71. "De Vnario, Simulacrum Unarii, ab Vno infinito, & indeterminato, determinatè creati."

²⁵ T. Oliver, *De Sophismatum praestigijs cauendis admonitio* (Cambridge, 1604), sig. 3r.

²⁶ Dee, *Monas Hieroglyphica*, 28r; Josten, "A Translation of John Dee's *Monas Hieroglyphica*," 219. Heinrich Khunrath provides an explanation for the curious orthography of Dee's "InTeLlectus" in *Vom hylealischen, das ist pri-materialischen catholischen oder allgemeinen natürlichen Chaos, der naturgemässen Alchymiae und Alchymisten, wiederholte, verneuerte und wolvermehrte naturgemäss- alchymisch- und rechtlehrende philosophische Confessio oder Bekandtniss* (Frankfurt, 1708), 190, where he shows how Dee's capital "L" stands for the Hebrew word לֵאל (El [God]), incorporating it into the phrase "Adsit Ruach Hhochmah-El; in te L (לֵאל) lectus! Es sey Da; der Geist der Weißheit Gottes; in dir Gott der außerlesene!" (May the Spirit of the Wisdom of God be present, [who is] excellent in you, Oh God!).

text that “One drop of truth, as *the most illustrious Philosopher* John Dee of London rightly says, is the creator of many more” reveals that he was clearly familiar not just with the *Monas Hieroglyphica*, but also with Dee’s *Mathematicall Praeface* to Billingsley’s translation of Euclid’s *Elements of Geometrie* (1570).²⁷

This very brief consideration of Pythagorean numbers leads us on to Dee’s cabbalistic speculations on numbers in the *Monas Hieroglyphica*. As a reader of the *De Verbo Mirifico* (1494) and *De Arte Cabalistica* (1517), in which Johann Reuchlin (1455–1522) forges links between Neo-Pythagoreanism and Jewish cabbala, Dee would have been familiar with the latter’s numerological speculations on the symbolic similarities between the Hebrew *tetragrammaton* (the word of four letters, יהוה YHVH) and the Pythagorean *tetraktys*.

As both Clulee and Norrgren make clear in their articles, Dee was fascinated with the application of the exegetical techniques of cabbala to alchemy. He was well aware that each letter of the Hebrew alphabet has a numerical equivalence, and that the computation of these numbers in words and comparison with other significant words was believed to provide insights into various levels of reality. The fourth-century *Sefer Yetzirah*, or Jewish “Book of Formation,” gives a cosmogonic account of God engraving the universe with the twenty-two foundation letters of the Hebrew alphabet. It must not have seemed a long leap from the notion that the *Torah* could be reduced to its constituent parts, its jots, and tittles, and that these could then be recombined to generate new meanings, to drawing an analogy with alchemy, in which substances were reduced to their primal matter, and then recombined and transmuted to create and reveal new products.

In the *Monas Hieroglyphica*, Dee insisted on the validity of applying the Hebrew techniques of letter permutation and numerical calculation to the other two matrix languages of biblical scripture, Latin and Greek. In the *Monas Hieroglyphica*’s sixteenth theorem, Dee establishes that the “cross of the elements” in his hieroglyphic monad equates to the letter X, which contains the Latin letters V, X, and L, i.e. the numerals 5, 10, and 50.²⁸ Although the publication of Paracelsus’s *Aurora* (1577) postdates Dee’s *Monas Hieroglyphica* (1564), given Dee’s admiration for the works of Paracelsus, it is possible that he was familiar with this work in manuscript, for there is a passage that displays a similar interest in conceptualising the timing of alchemical practice by means of Roman numerals:

But I exhort and withall inform thee, as to this thing, that as to the entrance upon or beginning the former or latter labour, thou doest not exceed or outstrip as ‘twere, in thy calculation, this character X [its] middle or point, but divide it justly; and then moreover, with the half part of this character, (that is V) must you go backwards [or retrograde] in the composition of this work. The which being done, then afterwards if thou joyntly recollectest [or unitest] it again, and rightly numberest up XX [being] the part [or product] thereof;

²⁷ Oliver, *De Sophismatum*, Cap. 9, “De veritatis contemptu authoris iusta conquestio,” 32, “Vna enim veritatis guttula, vt verè dixit *Philosophus illustrissimus* Ioannes Dee Londinensis, pluris facenda est.” See J. Dee, *The Mathematicall Praeface to the Elements of Geometrie of Euclid of Megara* (1570), with an Introduction by A. G. Debus (New York: Science History Publications, 1975), sig. C.jr, “And esteme one Drop of Truth (yea in Naturall Philosophie) more worth, then whole Libraries of Opinions, vndemonstrated: or not aunswering to Natures Law, and your experience”, and sig. C.jv, “When you haue found this one certaine Drop of Naturall veritie, procedo on, to Inferre, and duely to make assay, of matter depending . . .”

²⁸ N. H. Clulee, “John Dee and the Paracelsians,” in *Reading the Book of Nature: the Other Side of the Scientific Revolution*, ed. A. G. Debus and M. Walton (Kirkville, Mo.: Sixteenth Century Press, 1998), 111–32, on 124.

in that number or time, (if no farther obstacle intercede) mayst thou attain to the end of thy work.²⁹

As with Dee's Pythagorean speculations, here, too, we find instances of later writers either directly referring to Dee or at least making use of similar techniques. Petrus Bungus's *Numerorum Mysteria* (1618), for instance, refers the reader to Dee's *Monas Hieroglyphica* in a discussion of the letter X and the significance of the point at the intersection of the four radiating lines, with unity denoting God and a good intellect, and duality a demon and bad intellect.³⁰ Dorn, in another of his scholia to the *Tractatus Aureus*, this time commenting on Hermes' ruminations on the symbolism of a hen's egg,³¹ takes Dee's Roman numeral speculations in Theorem 16 a stage further. He argues that the two letter Vs which mirror one another represent, as it were, the "As above, so below" maxim of the *Emerald Tablet*, with the upper V being incorporeal, and the lower corporeal. When these two are brought together, they form the letter X, i.e. the *denarius* or number of perfection, represented otherwise by the letters IO, as if one were saying "one circle," or one revolution of a circle, this denary number being the Mercury of the Philosophers. In addition, the Roman letter M equals the number 1,000, which is the ultimate perfection of all other numbers, and for Dorn denotes sulfur, which (containing fire, the fifth essence, and spirit) makes all things bear fruit. If you join all these letters together, you get the word OVUM; the letter O signifies earth, for philosophical earth should be round and circular like the motion of the heavens; the letters VU represent water and air, and the final letter M represents fire (possibly because it resembles the astrological glyph for Aries ♈) — all combining to make the word "EGG."³²

²⁹ Paracelsus, *His Aurora, & Treasure of the Philosophers, As also The Water-Stone of the Wise Men; Describing the matter of, and manner how to attain universal Tincture; Faithfully Englished and Published by J. H.* (London, 1659), 120.

³⁰ P. Bungus, *Numerorum Mysteria, Ex abditis plurimarum disciplinarum fontibus hausta: Opvs Maximarvm Rervm Doctrina, & copia refertum. In quo mirus imprimis, idemque perpetuus Arithmeticae Pythagoricae cum Diuinae Paginae Numeris consensus, multiplici ratione probatur* (Paris, 1618), 51.

³¹ Manget, *Bibliotheca Chemica Curiosa*, I, 421. "Hermes: Scito fili, quod in gallina ovo maximum subsidium est; & in natura propinquitas: in eo namque est spiritualitas & elementorum collatio, ac terra natura aurum est."

³² Manget, *Bibliotheca Chemica Curiosa*, I, 421. "Quod verò attinet ad duo ista VV, eandem ambo habent significationem: & per hanc [small v above mirrored by inverted v below] ut vides positionem, in unam coeunt literam, videlicet in X, quae litera apud Latinos idem, quod denarius numerus, significat, cujus alias character exprimitur per has duas notas IO: quasi diceret, *unus circulus*, vel unica circuli revolutio, I. enim unitatis manifestus est character: O. verò circuli: ita ut per hanc crucem X. sive denarium numerum aliud nihil indicetur, quam ipsemet Philosophorum Mercurius: de quo supra in nostris hieroglyphicis abundè satis tractatum fuit. M. autem, quia millenarium aequipollet numerum: in quo reliquorum numerorum ultima est perfectio, merito sulphuris obtinebit vicem. Est enim in sulphur ignis, essentia Quinta, & spiritus, qui omnia vivificat & alterat, & omne germen germinat, & omne lumen accendit & omnes fructus florere facit. Quia enim omnia in se possidet ac complectitur, omnes quoque has functiones, in naturali rerum oeconomia administrat, Et haec de tribus propinquis dicta sufficient. Addemus nunc pauca quaedam de remotis, ubi videmus. OVUM ex quatuor literis esse compositum. Prima igitur litera O refert terram. Terra enim Philosophica rotunda esse debet, & circularis, ut coelum motu suo circa eam operari, & vim suam in illam mittere queat. Nisi enim rotunda esset terra, Sol & alii Planetae circa ipsam operationes suas exercere non possent: sed cursus illorum aut in circuitu impendiretur, aut volociori motu praecipitaretur: ut Paracelsus docet in sua aurora. Duae vero sequentes literae VU, aquam representant & aërem . . . Ultima denique litera M. ignem manifeste nobis depingit."

Remaining on this theme, Theorem 18 in the *Monas Hieroglyphica* discusses the figure and “great metamorphosis” of the alchemical egg. The Saxon chemist Andreas Libavius (1560–1616), whose encyclopaedic work *Alchemia* (1597) some claim to be the first textbook of chemistry,³³ writing to the mathematician and professor of astrology at the University of Jena, George Limnaeus, in a letter on the philosophical egg and its parts, refers favourably to Dee’s use of the Aesopian figment of the enmity between eagles and scarabs in this theorem, stating that Dee accommodated the story to chymical gold-making (*chrysurgian chymicam*), and praises him for recommending the reader to dwell on the chemical significance of the different components of the egg (its albumen, yolk, shell, and so forth), even going so far as to say that Dee’s is a “mirabilis expositio.”³⁴

In the same commentary on the *Tractatus Aureus*, Dorn could also conceivably be alluding to another of Dee’s figures, this time that of the “Arbor Raritatis” incorporating the Pythagorean Y, when he contrasts the corporeal and imprudent Peripatetic manner of speaking of the science of the elements with the Hermetic philosophers, who understand πνευματικῶς καὶ σοφικῶς (*pneumatikōs kai sophikōs*), that is “spiritually and wisely” (*spiritualiter & sapienter*).³⁵ If we look at the top of Dee’s image, we see the two arms of the Y under the Greek words: ΤΥΡΑΝΝΟΣ (*Tyrannos*) and ΠΝΕΥΜΑΤΙΚΟΣ (*Pneumatikos*).

Dorn evidently considered this Pythagorean Y to be a significant image, for he used it on the title page of his *Artificii Chymistici Physici, Metaphysicique*, published in 1569, and it appears again on the title page of his *Lapis Metaphysicus* (1570). As a final word on this image, at the beginning of his *Delle Imprese*, the Italian scholar Giulio Cesare Capaccio includes a chapter on hieroglyphs, where we find reproduced the very same figure from the work of “Giovanni Dee da Londino,” with the claim that the literary and moral symbols

³³ J. Read, *Prelude to Chemistry: an Outline of Alchemy, its Literature and Relationships* (London: G. Bell & Sons, 1936; repr. Cambridge, Mass.: The MIT Press, 1966), 80; J. R. Partington, *A History of Chemistry*, 4 vols. (London: Macmillan & Co. Ltd, 1961), II, 247.

³⁴ A. Libavius, *Rerum Chymicarum Epistolica Forma ad Philosophos et Medicos quosdam in Germania*, 3 vols. (Frankfurt, 1595), Epist. XX: “De Ovo Philosophico Eiusque Partibus & Essentiis Chymicis. Ad Virum Ornatiss. D. M. Georgium Limnaeum Mathematicum & Astronomum Ienensem,” I, 179–84, on 180–82: “Nosti figmentum Aesopicum de inimicitia aquilae & scarabaei, & quo pacto hic illius iniurias sit vltus corrumpendo oua & in praiceps etiam ex Iouis sinu effundendo, quò fractis deprauatisque prosapia aquilina gentis ampliandae spe priuaretur. Accommodauit fabulam ad chrysurgian chymicam Londinas, iussitque agnoscere quae sit albuminis ouorum aqua; quod ex vitellis oleum; quae calx ouorum, in quibus turpissimè halucinentur imperitissimi Alchymistae, quemadmodum Bernhardi docet historia, conquerentis se olim magno cuiusdam supercilio inductum frustra in ouis vulgaribus quaesiuisset id quod illis non inest. Est autem mirabilis expositio Londinatis. Suadet vt artem discamus ab Heliocantharis, qui certis temporum curriculis latitando viuant, (alludit ad illud συφον; λαθὲ βίωσις) quique velint suis iudiciis de suo inimico sumi posse vindictam. Innuuit vtendum esse artificio scarabaei, qui fimo se inuoluit, cuius ope dissolutum est ouum aquilinum: deinde calcem eius cum puro albumine totoque temperandam: temperamentum toto vitelli liquore artificioso ordine obtinendum, voluendo reuoluendoque, quo magna oui fiat metamorphosis iam scilicet disparente & quasi inuoluto albumine ipso in ipso vitellino liquore. Haec ille.”

³⁵ G. Dorn, “Tractatus aureus,” in Manget, *Bibliotheca Chemica Curiosa*, I, 407. “πνευματικῶς καὶ σοφικῶς, hoc est, spiritualiter & sapienter.” The same passage includes the phrase “Est in Mercurio quicquid quaerunt Sapientes,” which Dee uses on the title page of the *Monas Hieroglyphica*, a few lines further down.

used by ancient authors such as Homer, Pliny, and Cicero were impossible to understand fully without studying the *Monas Hieroglyphica*.³⁶

Thirty years after the publication of the *Monas Hieroglyphica*, in a passage ridiculing the cabalistic notion of Jacob's Ladder, which "Cornelius Gemma shoves into [his] *Cosmocriticus*," stretching from *natura* via the *horizon temporis* to the *horizon aeternitatis*, as "fooleries" (*ineptiae*), Libavius in his *Tractatus Duo Physici* (1594) alludes to another of Dee's diagrams, this time that of the "Horizon Aeternitatis," in which Dee tries to encapsulate the spiritual dimension of the *Monas Hieroglyphica*, emphasising that only one in a million actually reach the lofty heights of spiritual understanding.³⁷

Learning of this criticism, Dee planned to write a defence, mentioned in his *Letter, Containing a most briefe Discourse Apologeticall* (1592):

I have just cause, lately given me to write and publish a Treatise, with Title, *De Horizonte Aeternitatis*: to make evident, that one *Andreas Libavius*, in a booke of his, printed the last yeere, hath unduly considered a phrase of my *Monas Hieroglyphica*: to his misliking: by his own unskilfulness in such matter: and not understanding my apt application thereof, in one of the very principal places, of the whole book.³⁸

It would appear that Libavius's scornful comment about Dee's "fooleries" provoked the wrath of Ortvinus Gratius (not the one lampooned by the humanist supporters of Reuchlin in *Letters of Obscure Men* [1515]), who published a polemical letter in which he defended Dee against Libavius, declaring that Dee's book had as many arcana of philosophy as Libavius's book had ravings and pedantries.³⁹

³⁶ G. C. Capaccio, *Delle Imprese* (Naples, 1592), sig. 4v. See H. Håkansson, *Seeing the Word: John Dee and Renaissance Occultism*, Ugglan Minervaserien 2 (Lund: Lunds Universitet, 2001), 76.

³⁷ A. Libavius, *Tractatus Dvo Physici; Prior De Impostoria Vvlhervm per unguentum armarium sanatione Paracelsicis usitata commendataque; Posterior de cruentatione cadaverum in iusta caede factorum praesente, qui occidisse creditor* (Frankfurt, 1594), 41. "Scala Cabalistica . . . & scalam Iacobi, quam etiam Cornelius Gemma in cosmocritice obtrudit, pro fundamento assumit, quatuor in ea gradus in vasto illo coeli & terrae interuallo, instituens, nempe naturam, horizontem temporis, horizontem aeternitatis temporalis, horizontem mundi super supremi, quibus ineptiis etiam in sua monade hieroglyphica vtitur, Johannes Dee, in scripto in diagrammate. Horizonte aeternitatis, & temporis, quanquam sensu naturali." I have rendered Libavius's "cosmocritice" as "cosmocriticus" on the assumption that he is declining the Greek Κοσμωκριτικός (*kosmokratikos*) as if it were a Latin masculine noun terminating in "os," despite the fact that the Latin "criticus" terminates in "us."

³⁸ J. Dee, *A Letter, Containing a most briefe Discourse Apologeticall with a plaine Demonstration, and feruent Protestation, for the lawfull, sincere, very faithfull and Christian course, of the Philosophicall studies and exercises, of a certaine studious Gentleman: An ancient Seruant to her most excellent Maiesty Royall* (London, 1599). See *Autobiographical Tracts of Dr. John Dee, Warden of the College of Manchester*, in *Chetham Miscellanies*, Vol. I, *Remains Historical & Literary Connected With the Palatine Counties of Lancaster and Chester*, Vol. XXIV (London: The Chetham Society, 1851), 77–78. See also M. Casaubon (ed.), *A True & Faithful Relation of what passed for many years between Dr. John Dee and Some Spirits* (London, 1659), sig. K2v–K3r.

³⁹ O. Gratius, *M. Ortvini Gratii vtriusque Facultatis Decani Epistola Polemica de Neoparacelsis. D. Andreae Libavij, vt Medicorum Galenicorum Galenicentissimi, ita Chymicorum quoque Chymicissimi, Das ist/Von Galenischen und Paracelsischen gverris* (n.p., n.d.), sig. B4v. "Simile axioma ponit in charta de vnguento armario pag. 41 ubi scribit DEE Londinensis in sua monade Hieroglyphica

Josten, Clulee, and Håkansson all quite reasonably argue that Dee could have found the term “horizon of eternity” in Pico della Mirandola’s *Conclusiones*.⁴⁰ Clulee’s suggestion that Cornelius Gemma could be another source, however, is less likely, as the “Cosmocriticus” that Libavius refers to is in fact Gemma’s *De Naturae Divinis Characterismis* (1575), which includes an image of angels moving up and down a ladder from earth to heaven.⁴¹ As his source is Libavius’s *Tractatus Duo Physici*, published in 1594, it seems more likely that Libavius had been reading the 1591 Frankfurt reprint of the *Monas Hieroglyphica*, which postdates Gemma’s work, and mistakenly believed, because of its astronomical material, that Dee had used it as inspiration for his text.

There is, moreover, another work that could be a far more obvious source in an alchemical context. This is Paracelsus’s *Aurora Thesaurusque Philosophorum*, which was edited by Dorn and published with his commentary in 1577; in it we find this passage discussing the origin of magic out of the “Divine,” “Hieroglyphicall Ternary”:

This Covenant or League of the divine Ternary diffused throughout the whole substance of things, is Indissoluble, by which also we have the secrets of all nature out of the four Elements; For the Ternary with the Magical Quaternary produceth a perfect Septenary, endowed with many Arcanas, and demonstrated by [things] known. And when the Quaternary rests in the Ternary, [then] ariseth the light of the world in the Horizon of eternity, and with [the help of] God affords and gives us the whole bond.⁴²

If we consider the presence of the monas hieroglyph itself in later works, it may not by now be so great a surprise to learn that it is in another of Dorn’s works that we find the first version of Dee’s hieroglyph. This is the adaptation appearing on the title page of Dorn’s *Chymisticum Artificium Naturae*, published in 1568, four years after the first edition of the *Monas Hieroglyphica*. Dee’s own copy of Dorn’s work has survived from the collection of the American alchemist John Winthrop the younger (1606–1676), first Governor of

³⁹ *continued*

vtitur ineptijs . . . Dico tamen quod qui librum illius Londinensis calumniatur & temnit, quod ille sit animal cumanum vt leo, vel aliud auriculatum simile . . . Libavius hoc fecit. Ergo Libavius est animal cumanum, quia liber ille Londinensis tot habet Philosophiae arcana, quot liber Libavij deliramenta & schulfuchsitates.” This is clearly not the same Ortvinus Gratius to whom the *Epistolae Virorum Obscurorum* were addressed in defence of Reuchlin against the attacks of Hoogstraten, as he died in 1542.

⁴⁰ S. A. Farmer, *Syncretism in the West: Pico’s 900 Theses (1486) — the Evolution of Traditional Religious and Philosophical Systems* (Arizona: Medieval & Renaissance Texts & Studies, 1998), 501. Magical Conclusions 9>16–18. See: Josten, “A Translation of John Dee’s *Monas Hieroglyphica*,” 96; Clulee, “John Dee and the Paracelsians,” 119; and Håkansson, *Seeing the Word*, 222.

⁴¹ Clulee, “John Dee and the Paracelsians,” 119; C. Gemma, *De Naturae Divinis Characterismis; seu Raris & admirandis spectaculis, causis, indiciis, proprietatibus rerum in partibus singulisuniversi*, Libri II (Antwerp, 1575), Liber Primus, “Quo Potissimum vniuersalis ratio artis COSMOCRITICAE continetur,” 144: “Emblema Divinae Prodentiae, atque ipsum propè artis totius cosmocriticae fundamentum.”

⁴² “What Magi the Chaldeans, Persians and Egyptians Were,” in *Paracelsus, His Aurora*, chapter IV, 10–11; cf. Paracelsus, *The Aurora of the Philosophers*, in A. E. Waite (ed.), *The Hermetic and Alchemical Writings of Paracelsus, The Great*, 2 vols. (Chicago: de Laurence, Scott & Co., 1910), I, 52.

Connecticut.⁴³ Beneath Dorn's title page image, Dee has somewhat peevishly written, "He learned to form these new characters from my *Monas Hieroglyphica*, without so much as a by your leave or any acknowledgement."⁴⁴

Dorn was not the only person to use the monas hieroglyph without mentioning Dee. In *Il Mondo Magico de gli Heroi* (1605), Cesare della Riviera also includes the hieroglyph, discusses the mystical character of Aries and the sign of the fiery triplicity (i.e. the three zodiac signs of Aries, Leo, and Sagittarius, each denoting different degrees of heat), and the composition of the characters for Mars, Saturn, and the rest of the planets.⁴⁵ Although he cites many authors, including Trithemius on the symbolic numbers,⁴⁶ and Pantheus's gloss on the word *alchimia* in his *Voarchadumia* as the "ferment of vain counsel,"⁴⁷ and even reflects on how the Latin numerals 50, 5, and 10 wondrously form the word LVX (i.e. Light), "representing the essence of God, the ultimate end of Magic, and unity, the beginning and end of all things," and so forth, Dee's name is notable by its absence.⁴⁸ Perhaps the best-known unacknowledged appropriation appears in Athanasius Kircher's *Oedipus Aegyptiacus* (1653–1655), in the second volume of which, in the fourth chapter of the book, on "Alchimia Hieroglyphica," Kircher discusses Dee's hieroglyph, renamed as the "Crux Hermetica," quotes from Dee's text, reproducing some of his detailed diagrams for the correct geometrical construction of the symbol, even including an elaborate variant, the "Crux Ansata," in another chapter on "Mathematica Hieroglyphica," but never once mentions Dee (figure 2).⁴⁹ Johann Christoph Steeb's *Coelum Sephiroticum* (1679) is another work that includes a hybrid version of the monas, entitled the "Sigillum Hermetis Mercurii Trismegisti" (Seal of Hermes Mercurius Trismegistus), this time in a cabbalist rather than Kircher's Egyptian context, the hieroglyph serving as a kind of ladder from the *mundus terrestris* below to the *mundus archetypus* above.

⁴³ R. S. Wilkinson, "The Alchemical Library of John Winthrop, Jr. (1606–1676) and his Descendents in Colonial America," *Ambix* 9 (1963): 33–51.

⁴⁴ "Iste, ex nostra Monade Hieroglyphica Characteres istos novos formare didicit cum sine venia nostra, tum sine grata nostri mentione," cited in Clulee, "John Dee and the Paracelsians," 119, n. 31 and fig. 3.

⁴⁵ C. della Riviera, *Il Mondo Magico de gli Heroi, Edizione del 1605, Introduzione di Piero Fenili* (Rome: Edizioni Mediterranee, 1986), 34–35.

⁴⁶ Riviera, *Il Mondo Magico*, 48, 76, 80.

⁴⁷ Riviera, *Il Mondo Magico*, 160. "Quindi appare manifestamente, l'Alchimia essere arte solamente apparente, sofistica, e delusoria, si come ella medesima afferma; perciocché tal voce, Alchimia, hebraicamente suona non altro, secondo Agostino Pantheo nella *Voarchadumia*, che fermento di vano consiglio: & appresso, ella è così detta da quel famosissimo antico sofista, Alchimo chiamato."

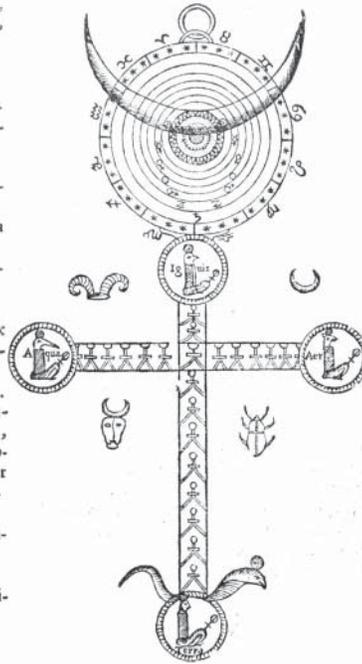
⁴⁸ Riviera, *Il Mondo Magico*, 49. "Mirabilmente formano questa voce LVX, voce rappresentante l'essenza di Dio, una in natura, e trina nelle persone, proprio oggetto de' Beati, vita dell'Universo, ultimo scopo della Magia, & unità, principio, e fine di tutte le cose."

⁴⁹ A. Kircher, *Oedipus Aegyptiacus; hoc est, Universalis Hieroglyphicae veterum Doctrinae temporum injuriâ abolitae instauratio*, 3 vols. (Rome, 1653), II, *Pars Altera*, Cap. III, 29, "Crux Ansata," 393–434. See Cap. V, 400, 407 and 434 for copies of Dee's monas. See Manget, *Bibliotheca Chemica Curiosa*, I, 7. "Dee Londinensis, & nuper Kirckerus in *Oedipo, Kriegsmannusque* opportunissimâ enodatione omnes planetarum coelestium & terrestrium figuras elicue." Wilhelm Christoph Kriessmann was the author of *Taut oder Auflegung der Chymischen Zeichen* (Frankfurt, 1665), which uses Dee's "lunar mercury" symbol for quicksilver (58).

CLASS. VII. MATHEMATICA HIEROGLYPH. 29 C.

Explicatio Figuræ.

1. Totæ Crux nota diffusionis mentis diuinæ.
2. Circuli octo notant 7 Planetarū Orbem cum firmamento.
3. Figura circularis Solem, Luna sextilis Lunam.
4. Crux notat Mundum Elementarem.
5. Quatuor Genij, præfides notat quatuor Elementorum.
6. Cruces anſatæ ideas in mente diuina existentes.



7. Cornu Arietis notat calorem in Mundo.
8. Luna humorem, quæ duo sunt generationis principia.
9. Caput Tauri notat characterem ex capite Taurino inuentum.
10. Scorpionis figura idem notat.
11. Serpens denique ex inferiori globo emergens notat vim diuinam omniam permeantem.

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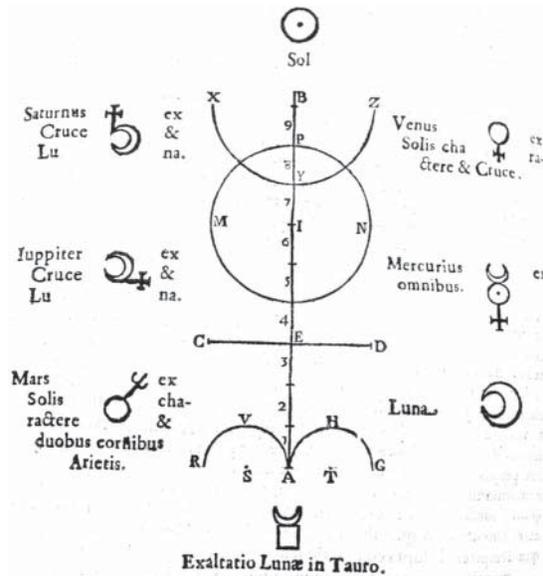


Fig. 2. From Athanasius Kircher, *Oedipus Aegyptiacus*, vol. II (Rome, 1653–1655), 29, 434. Reproduced courtesy of the Warburg Library, London.

A work that locates the hieroglyph in a far more obviously alchemical context is the *Amphitheatrum sapientiae aeternae* of Heinrich Khunrath (1560–1605), first published in 1595, and then in a more widely available expanded edition in 1609.⁵⁰ Khunrath, one of Libavius's fellow students at the Basel Medical Academy, was an alchemist influenced by the writings of Trithemius, Paracelsus, Dorn, and Dee. It is interesting to note that Nathan Albineus, editor of the *Bibliotheca Chemica Contracta* (1653), advises his readers to read the works of both Khunrath and Dee for further insight into the texts in his collection.⁵¹ The two men are known to have met one another in 1589, for Dee records the event in his diary, as Ashmole reports in the *Theatrum Chemicum Britannicum*.⁵² We also know that Khunrath shortly thereafter became court physician to Dee and Kelley's erstwhile patron in Bohemia, Vilém Rožmberk.⁵³

Although Charlotte Fell Smith, in her biography of Dee, grandiloquently describes Khunrath as "the chief writer of the advanced school of alchemists who passed from the pursuit of material gold to the discovery of incorruptible spiritual treasures hidden in the palaces of truth,"⁵⁴ which has encouraged historians of chemistry such as John Read to utterly disregard his work, Khunrath's *Amphitheatrum* states quite clearly on the title page that his work is one that includes Christian cabbala, divine magic, and physical chemistry; his works reveal a dedicated theoretical and practical engagement with both *chrysopoeia* (gold-making) and *chymiatría* (medical chemistry).

Like Dee, Khunrath had an interest in the *Voarchadumia*, and similarly argues for more attention to the exegesis of the book of nature.⁵⁵ In the *Amphitheatrum*, Khunrath explicitly refers to the *Monas Hieroglyphica*, paraphrasing Dee's distinction between his real cabbala, or the cabbala τοῦ ὄντος (tou hontos [of that which is]) and the vulgar cabbalistic grammar, or τοῦ λεγομένου (tou legomenou [of that which is said]).⁵⁶

⁵⁰ H. Khunrath, *Amphitheatrum sapientiae aeternae solius verae: Christiano-Kabalisticum, divino-magicum, nec non physico-chymicum, tertriumum, catholicon* (Hanau, 1609).

⁵¹ N. Albineus, *Bibliotheca Chemica Contracta* (Geneva, 1653), Praefatio, sig. 3r. See L. Thorndike, *A History of Magic and Experimental Science*, 8 vols. (New York: Columbia University Press, 1923–1958), VII, 155–56.

⁵² Ashmole, *Theatrum Chemicum Britannicum*, 483. "Here that famous *Hermetique Philosopher* (Doctor *Henric Kunrath* of *Hamburgh*) came to visit him." Cf. J. O. Halliwell (ed.), *The Private Diary of Dr. John Dee* (London: Camden Society, 1842), 31: "June 6th. Doctor Kenrich Khanradt of *Hamburgh* visited me."

⁵³ Václav Březan, *Poslední Rožmberkové* (The Last Rozmberks), ed. J. Dostál (Prague, 1941), 165; cited in R. J. W. Evans, *Rudolf II and His World: a Study in Intellectual History* (Oxford: Clarendon Press, 1973), 214.

⁵⁴ C. F. Smith, *John Dee (1527–1609)* (London: Constable & Company, 1909), 217.

⁵⁵ H. Khunrath, *Magnesia Catholica Philosophorum das ist, höchste Nothwendigkeit in Alchymia, auch mögliche überkommung, Augenscheinliche weisung und gnugsame Erweisung, Catholischer verborgener Magnesia; des geheimen wunderthetigen Universal Steins Naturgemess-chymischer Philosophorum, Rechten und allein wahren-primaterialischen subjecti* (Magdeburg, 1599), 92. "Aus diesem/ und sonstem keinem andern/ natürlichen grunde gehet VOARCH BETH ADAMOTH der alte[n] Weisen." See also H. Khunrath, *Lux in Tenebris: Das ist, Liecht und Wegweisung/ derer/ die in Alchymia mit Finsternuß und Irrthumb umgeben/ und außerhalb dem Liecht der Natur laboriren; wie sie nemblich durch die gnade Gottes darauß kommen/ und solchen Mangel ersetzen sollen: Universaliter, & particulariter* (n.p., 1614), 23. For references to the "Book of Nature," see Khunrath, *Amphitheatrum*, passim.

⁵⁶ Khunrath, *Amphitheatrum*, II, 6; Dee, *Monas Hieroglyphica*, 6v.

In both the 1595 and 1609 editions of the *Amphitheatrum*, Dee's monas appears in Khunrath's circular figure of the "Rebis," or alchemical hermaphrodite (figure 3), an engraving that has been described as "a Picture-Compendium of Paracelsian Alchemy."⁵⁷ Dee's hieroglyph can be seen on the breast of the Hermetic bird, symbolising the various colour changes of the alchemical process. The monas forms the O of the alchemical word "AZOTH,"⁵⁸ a favourite word with the Paracelsians, given that Paracelsus had written the *Liber Azot sive de Ligno et Linea Vitae*. The word "Azoth" (or Azoth) is formed of the first and last letters of the three matrix languages — Latin A and Z, Greek A (alpha) and Ω (omega), and Hebrew א (aleph) and ט (tau) — and as such encapsulates the whole alchemical work, the transformation of *prima materia* into *ultima materia*.⁵⁹ Azoth is described by Khunrath as the "sharpest Acid" (Acetum acerrimum) of the wise, the association with acid presumably being the reason for the appearance of the word "Azoth" on the pommel of Paracelsus's sword, suggesting its ability to cut, anatomise, or reduce all things to their primal state.⁶⁰ Its presence on the breast of the Hermetic bird, with Dee's hieroglyph as the central O, emphasises the significance of Dee's monas as one of the central analytical and synthetic tools of theoretical alchemy.

The monas hieroglyph is also included in the *Alchemical Citadel* engraving that first appears in the 1609 *Amphitheatrum* (figure 4). Like the "Rebis" engraving, this is an image devoted to physical chemistry. Twenty of the entrances to the citadel represent mistaken and fraudulent chemical practices, while only one leads to the heart of alchemical truth. The fact that the monas adorns the archway leading into the inner sanctum again shows the great significance that Khunrath found in Dee's work.

A further point to counter somewhat dismissive statements that Dee and Khunrath are predominantly concerned with spiritual alchemy is the knowledge that Khunrath's *Quaestiones Tres Perutiles* (Three Very Useful Questions) (1607), a book on spagyric medicine devoted to considerations of the rather unspiritual subject of ailments arising from tartar, such as gout and kidney stones, is dedicated to none other than "England's Hermes," John Dee, together with the iatrochemists Joseph DuChesne, and Petrus Hollander. What is more, Duchesne (1544–1609), physician to Henry IV of France, puts Dee at the head of a list of Scottish and English "Hermetics" (Hermeticos) in the introduction to his *Ad Veritatem Hermeticae Medicinae* (1604).⁶¹ On the subject of well-placed chemists familiar with Dee's

⁵⁷ M. Bachmann and T. Hofmeier (eds.), *Geheimnisse der Alchemie* (Basel: Schwabe & Co. AG. Verlag, 1999), 161. "Ein Bild-Kompendium der paracelsistischen Alchemie."

⁵⁸ Cf. Khunrath, *Vom hylealischen . . . Chaos*. "Azoth, das ist/ Mercurius Vivus & Spiritus Animatus Sapientum, Geist und Seel/ Wasser und Blut/ Krafft und Safft/ Geist und Leben/ Alchymistischer Trost und Stärke . . . Azoth ist und heist Mercurius/ quia Spiritus; Vivus, quia animatus" (130); and "AZOTH Magnesiae Catholicae sit tibi prora & puppis "α & ω" (254).

⁵⁹ For "Azoth" and its derivation, see: Zetzner, *Theatrum Chemicum*, IV, 507; D. de Planis Campy, *Traicté de la Vraye Unique, Grande et Universelle Medecine des Anciens; dite des Recens, Or Potable* (Paris, 1633), 59–60; and B. Valentine, *Azoth: L'Occulta Opera Aurea dei Filosofi* (Rome: Edizioni Mediterranee, 1988), 103.

⁶⁰ A portrait of Paracelsus with "Azoth" on the pommel of his sword appeared in the first edition of the *Philosophia Magna* (1567). See Pagel, *Paracelsus*, 235.

⁶¹ J. Quercetanus, *Ad Veritatem Hermeticae Medicinae ex Hippocratis veterumque decretis ac Therapeusi: necnon viuae rerum anatomiae, exegesi, ipsiusque naturae luce stabiliendam, adversus cuiusdam Anonymi phantasmata Responsio* (Paris, 1604), 14. "Scotia & Anglia suos alunt

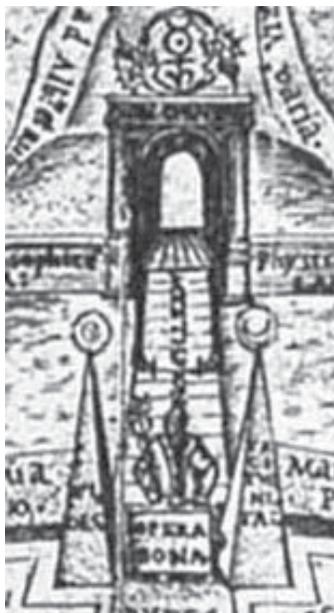
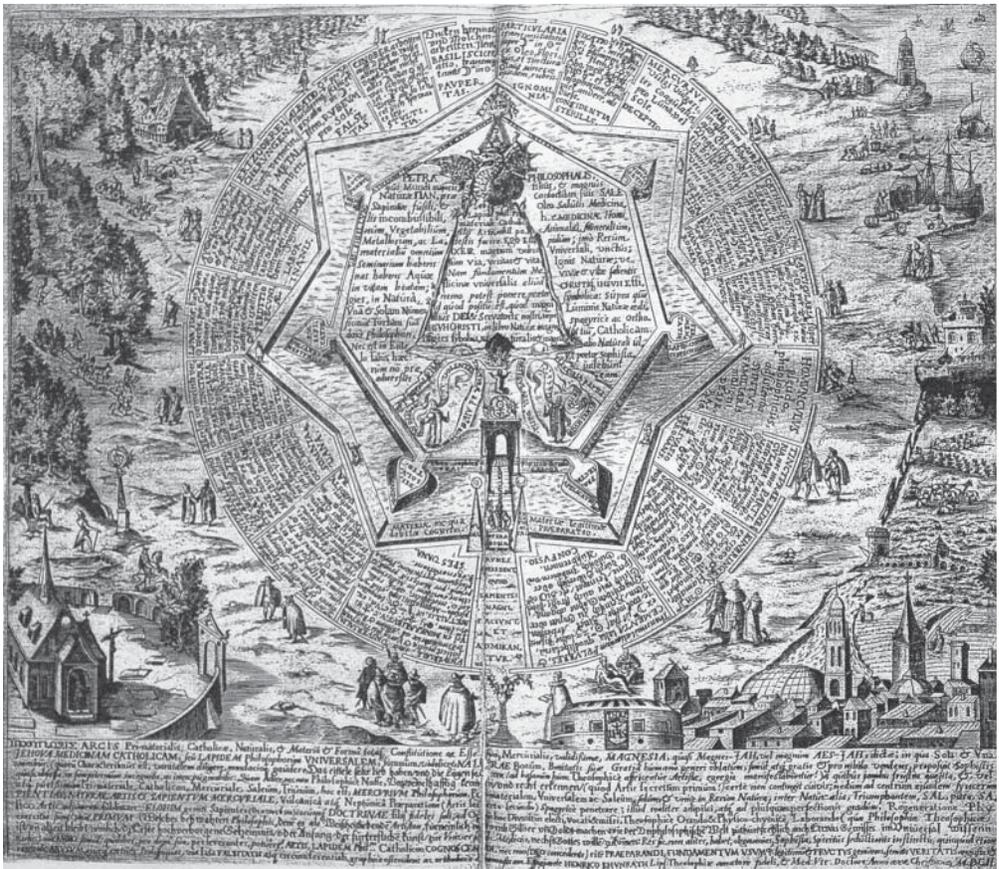


Fig. 4. (top) The “Alchemical Citadel.” (bottom) Detail showing monas symbol. From H. Khunrath, *Amphitheatrum Sapientiae Aeternae* (Hanau, 1609). Reproduced courtesy of the British Library, London.

work, Oswald Croll (1560–1608), physician to Christian I of Anhalt and author of the much reprinted *Basilica Chymica* (1611), therein mentions Dee’s notion of the “planets of inferior Astronomy,”⁶² and refers to the *Monas Hieroglyphica* in the context of Hermes’ *Emerald Tablet*.⁶³ In *De signaturis internis rerum* of the same year, Croll also refers to the *Monas Hieroglyphica* in the context of ancient philosophers who were accustomed to conceal their secrets from the profane by means of various figures, stating that, likewise, Hermetic philosophers denote their “terrestrial planets” (*Planetas Terrestres*) with hieroglyphic notations, by which their latent virtues may be known.⁶⁴ Although the French Paracelsian David de Planis-Campy (1589–1644) does not mention Dee in the text of his *Bouquet composé des plus belles fleurs chymiques* (1629), we do find him including the monas hieroglyph in a list of characters used by chemical philosophers to signify the materials they use in their work. Following a group of the traditional signs for the planets that also stand for the metals, we see the monas with the words “Et tous les metaux ensemble, ainsi” (And all the metals together, thus),⁶⁵ followed a few pages later by references to the figures and proportions, both numerical and geometrical, of those most versed in “la Caballe Chimique.”⁶⁶

Returning to the Dee–Khunrath connection, there is a manuscript in the Rylands Library, Manchester that once belonged to the Hungarian János Bánfi-Hunyadi, or Johannes Huniades the elder (c. 1576–1646), who lectured in chemistry at Gresham College, the main centre of scientific activity in early seventeenth-century London, and assisted Kenelm Digby (1603–1665) in his experiments with plants.⁶⁷ The manuscript includes a page with Dee’s hieroglyph surmounted by Khunrath’s favourite phrase, “Ora et

⁶¹ *continued*

Hermeticos, Ioannem Dee: Antonium L’escopia Silliuetanum: Laurentium de Laune: Ant. Cobel: Muffetum: Ioannem Starfeldium: Iacobum le Cadet: Andream Selim: Silbertum Guillermum, insignes omnes Medicos & Philosophos.”

⁶² O. Croll, *Basilica Chymica, continens philosophicam propria laborum experientia confirmatam descriptionem et usum Remediorum Chymicorum* (Frankfurt, 1611), 86. “Planetas inferioris Astronomiae,” with “Vide Monadem Joannis Dee Londinensis” in the margin.

⁶³ Croll, *Basilica Chymica*, 90 (marginal gloss). “Tabulam Hermetis. Morientem Alanum Rodargirum Monadem Trevisanum Lullium.”

⁶⁴ O. Croll, *De signaturis internis rerum: Die lateinische Editio princeps (1609) und die deutsche Erstübersetzung (1623)*, ed. W. Kühmann and J. Telle (Stuttgart: Franz Steiner Verlag, 1996), 77 (marginal gloss). “Vide Monadem Hieroglyphicam Joannis Dee Londinensis: Antiquibimos sapientes, quos Graeco sermone Philosophos appellamus, si quae vel Naturae vel Artis reperissent Arcana, ne in pravorum notitiam devenirent, variis modis atque figuris occultabant: Eodem modo Philosophi Hermetici certis notis Hieroglyphicis solebant insignire Planetas Terrestres, quibus eorum latentis virtutes intuendas, quasi ob oculos intelligentibus & inspicientibus filiis artis exponerent.”

⁶⁵ D. de Planis Campy, *Bouquet composé des plus belles fleurs chymiques* (Paris, 1629), 991.

⁶⁶ Campy, *Bouquet*, 1002. “Car le consentement vniuersel des plus versez en la Caballe Chimique, qui les ont gardez si long temps sans varier, tesmoigne je ne sçay quelle inspiration Celeste; ce qui se verifie en ce que leurs figures & proportions, tant numerales que Geometriques, semblent auoir vne fort grande correspondance & affinité avec les vertus Celestes, dont elles peuuent estre prises pour marques, Symboles, & vehicules de leurs effects icy bas sur tous les indiuidus de la terre.”

⁶⁷ M. Rady, “A Transylvanian Alchemist in Seventeenth-Century London,” *Slavonic and East European Review* 72 (1994): 140–51.

Laborando,” (figure 5), recalling his well-known engraving of the Oratory-Laboratory.⁶⁸ There also survive several portraits of Hunyades that include Dee’s hieroglyph, or variants thereof.⁶⁹

With regard to variations on the standard monas, anyone interested in the more theosophical forms of alchemy may be intrigued to know that the monas occurs in a horizontal version in an English translation of Jacob Boehme’s *The Clavis, or Key. Or, An Exposition of some principall Matters, and words in the writings of Jacob Behmen* (1647), in the discussion of the Seven Properties of Nature, i.e. symbolic interpretations of the seven planets, and at the head of a table giving the Seven “Formes of Spirits” mentioned in Revelations.⁷⁰ The same horizontal version can also be found in a seventeenth-century physical chemical manuscript, the *Speculum Veritatis*, in which Vulcan, the secret fire, is inducing birds to fly, showing that sublimation is taking place. Calling to mind the *Monas Hieroglyphica*’s Theorem 18, we even see some hens and the philosophical egg.⁷¹

Staying with the allegorically spiritual readings of alchemy, it has long been known that the monas hieroglyph appears in the *Chymische Hochzeit Christiani Rosencreutz (Chemical Wedding of Christian Rosenkreuz)* (1616) of Johann Valentin Andreae (1586–1654), where it can be seen alongside the wedding invitation.⁷² Without getting too embroiled in the question of Dee’s relationship with Rosicrucianism, it is worth mentioning that Adam Haslmayr (1560–1612), the Paracelsian translator of one of Edward Kelley’s alchemical tracts, and the first to write a reply to the Rosicrucians,⁷³ adopts Dee’s hieroglyph in several of his manuscript works, including the *Novum lumen physico-chemicum* (1616) and *Amphitheatrum Chymicum Sacrum* (1629).⁷⁴ According to Carlos Gilly, Haslmayr influenced the inclusion of a work that draws heavily on the *Monas Hieroglyphica* in the first edition of the *Rosicrucian Confession* in 1615.⁷⁵ This is the *Secretioris Philosophiae Consideratio brevis* (A Brief Consideration of More Secret Philosophy) by the pseudonymous Phillippus a Gabella,

⁶⁸ Manchester, John Rylands Library, MS Latin 82, fol. 8r.

⁶⁹ J. H. Appleby, “Arthur Dee and Johannes Banfi Hunyades,” *Ambix* 24 (1977): 96–109, Plate 1 (this shows Johannes Banfi Hunyades [1576–1646], from a silver medallion, with the monas appearing at its base); F. Sherwood Taylor and C. H. Josten, “Johannes Banfi Hunyades,” *Ambix* 5 (1953): 44–52 (Plate 1. 1a and 1c feature a variant on the monas; 1b is the monas; Plate 2 also includes a variant on the monas as well as the title-page phrase “Est in Mercurio quicquid quaerunt sapientes”).

⁷⁰ *The Clavis, or Key. Or, An Exposition of some principall Matters, and words in the writings of Jacob Behmen . . . Written in the Germane Language, in March, and Aprill, Anno. 1624 by Jacob Behmen* (London, 1647), 9, table inserted between 18 and 19.

⁷¹ *Speculum Veritatis*, seventeenth century, Biblioteca Apostolica Vaticana, Cod. Lat. 7286, fol. 5. See S. Klossowski de Rola, *Alchemy: the Secret Art* (London: Thames and Hudson, 1973; repr. 1997), Plate 7.

⁷² See A. McLean (ed.), *The Chemical Wedding of Christian Rosenkreutz*, transl. J. Godwin, introduction and commentary by A. McLean, *Magnum Opus Hermetic Sourceworks*, 18 (Grand Rapids, Mich.: Phanes Press, 1991), 16.

⁷³ C. Gilly, *Abraham Haslmayr: Der erste Verkünder der Manifeste der Rosenkreuzer* (Amsterdam: In de Pelikaan, 1994), 106, 113.

⁷⁴ C. Gilly, “‘Theophrastia Sancta’: Der Paracelsismus als Religion im Streit mit den offiziellen Kirchen,” in Telle, *Analecta Paracelsica*, 425–88.

⁷⁵ S. Åkerman, *Rose Cross Over the Baltic: the Spread of Rosicrucianism in Northern Europe* (Leiden: Brill, 1998), 117; Gilly, *Abraham Haselmayer*, 154, 170.



Fig. 5. Dee's monas symbol in a manuscript owned by János Bánfi-Hunyadi. Manchester, John Rylands Library, MS Latin 82, fol. 8r.

a work that Frances Yates discusses in *The Rosicrucian Enlightenment*.⁷⁶ The *Consideratio* quotes from the first thirteen theorems of the *Monas Hieroglyphica*, where Dee describes the composition of his hieroglyph, although Dee himself is never cited, and the word monas is replaced by "stella," perhaps, as Susanna Åkerman suggests, alluding to the woman holding the star at the end of the first edition of the *Monas Hieroglyphica*,⁷⁷ and certainly, as Clulee indicates, developing the connection between astral optics and alchemy with quotes from Dee's *Propaedeumata Aphoristica*.⁷⁸

⁷⁶ P. à Gabella, *Secretioris Philosophiae Consideratio brevis* (Kassel, 1615); Yates, *The Rosicrucian Enlightenment*, 45–47.

⁷⁷ Åkerman, *Rose Cross Over the Baltic*, 83–84, 117.

⁷⁸ Clulee, "John Dee and the Paracelsians," 131. See also T. M. Luhrmann, "An Interpretation of the *Fama fraternitatis* with Respect to Dee's *Monas Hieroglyphica*," *Ambix* 33 (1986): 1–10.

Given all this interest in Dee's *Monas Hieroglyphica* in Paracelsian and Rosicrucian circles, it is somewhat ironic that the most extensive, informative, and often surprisingly positive instances of the reception of Dee come from the vociferously anti-Paracelsian and anti-Rosicrucian Andreas Libavius. Yates's statement in *The Rosicrucian Enlightenment* that Khunrath's "Alchemist" is expressive of the Dee kind of alchemy, "of which Libavius disapproved," is somewhat misleading,⁷⁹ for, as generally scathing as Libavius is about Khunrath, there are elements in Dee's *Monas Hieroglyphica* of which the highly critical Saxon chemist evidently approved.

It is true that Libavius thoroughly disapproved of Dee's failure to respect disciplinary boundaries by blurring the line between the physical and the metaphysical, and the alchemical and the theosophical: his introduction of inappropriate speculations concerning astral influences, magical action at a distance, and such cabbalistic notions as the interconnection between terrestrial, celestial, and supercelestial levels of existence, as indicated in the "Horizon Aeternitatis" engraving.⁸⁰ In *De Philosophia Harmonica Magica Fraternitatis de Roseae Crucis* (1615), Libavius condemns similar tendencies among the Rosicrucians, mentioning Dee's *Monas Hieroglyphica*, along with the works of Trithemius, Dorn, and the cabbalists, as particular contributors to this malaise.⁸¹

Nevertheless, Libavius did not reject Dee's work out of hand. In *De Sceuastica Artis* (1606), his commentary on his monumental *Alchemia*, we find that in the sixth chapter, "De sermone Chymico & notis quibusdam" (On Chymical Discourse and some [types of] notation), Libavius approves of the idea of combining the various signs for chemical essences in one hieroglyphic symbol, because then it will be possible for a skilled interpreter to deduce directly from the symbol that something has been artificially produced from the initial chemicals. He approves, too, of the fact that masters of the art have endeavoured to make the signs for the materials and operations of their art agree with their sources, instead of being fabricated irrationally, arbitrarily, and monstrously, "as the Paracelsians are madly accustomed to do."⁸² In this context, he favourably introduces Dee's hieroglyph, systematically formed of all the traditional signs for the planets and metals, as a superior, logical contrast to the "Paracelsian monstrosities" (monstrositates Paracelsicas), the neologisms such as "spagyric," "alcahest," and "archaeus" with which Paracelsus peppered his works.

He seems to be making a similar point in his withering attack on the Paracelsians in *De Philosophia Vivente seu Vitali Paracelsi* (1615), where, in an allusion to Dee's image of the circle touching the line (mentioned above), when discussing the use of icons and emblems,

⁷⁹ Yates, *The Rosicrucian Enlightenment*, 83. "Khunrath's 'Alchemist' which is expressive of the Dee kind of alchemy."

⁸⁰ Clulee, "John Dee and the Paracelsians," 118.

⁸¹ A. Libavius, *De Philosophia Harmonica Magica Fratrum de Roseae Crucis*, bound with *Examen Philosophiae Novae, quae veteri abrogandae opponitur* (Frankfurt-am-Main, 1615), 273.

⁸² A. Libavius, *De Sceuastica Artis* (1606), in *Die Gerätschaft der chymischen Kunst: Der Traktat "De Sceuastica Artis" des Andreas Libavius von 1606, Übersetzung, Kommentierung und Wiederabdruck*, ed. B. Meitzner (Stuttgart: Franz Steiner Verlag, 1995). See Cap. VI, "De sermone Chymico & notis quibusdam," sig. Hh6v. "Id scire conuenit artifices studuisse, vt signa materiarum & operationum artis suae cum istis fontibus conuenirent, neque sine ratione monstrosè & temerè confictae appareant quomodo insanire paracelsici solent." See also W. R. Newman, "Alchemical Symbolism and Concealment: the Chemical House of Libavius," in *The Architecture of Science*, ed. P. Galison and E. Thompson (Cambridge, Mass.: MIT Press, 1999), 59–77, on 63.

whose overabundant use he is criticising (particularly those of Khunrath), he states, “In God’s temple it is enough for there to be one altar, because there is one Christ. It is solemnly [said] by the Chymists: *all from one: all to one*, according to the mystery of the *Monas Hieroglyphica*. On which your Paracelsian truth was contracted to a point.”⁸³

Returning to the *De Sceuastica* commentary, we find that, as in his letter to the mathematician Linnaeus, here too he refers with approval to Dee’s hieroglyphs of the physical egg and the figure of the world joined together by the spiral revolution of the ten spheres, which cleverly represents what Hermes said in the *Emerald Tablet*,⁸⁴ and he mentions without disapproval Dee’s speculations on the Hebrew and Greek alphabets. He points out that the more learned can extract far more characters from the hieroglyph than just those for the metals, and cites Dee as an example of one who has laboured hard at this. Then he goes on to provide a whole list of alchemical glyphs that spring from the monas, including those for sublimed and precipitated mercury, antimony, salt nitre, and sal ammoniac.

What is all the more surprising is that in the eighth chapter, “De aedificio & laboratorio Chymico,” where he writes of his ideal “house of chemistry” (*domus chemiae*), Libavius openly admits to using the proportions of Dee’s monas hieroglyph in the design of the ground plan for his laboratory.⁸⁵ He explains that both the figure of man and that of a flask share the elements of a rectangle surmounted by a sphere, stating, “we dignify this [laboratory] with sunlight and erect it in the middle of a field with a round head, but with a body drawn out like the figure of the microcosm, and like the hieroglyphic monad.”⁸⁶

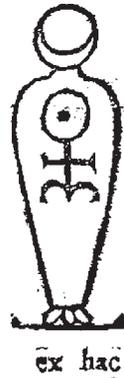
Perhaps this comparison between man and a flask in relation to the monas lies behind the image in a work that refers to Dee, Kircher, and Boehme: Johann Petrus Ericus’s *Renatum è Mysterio Principium Philologicum* (1686). After discussing the symbolism of the zodiac signs Aries and Taurus, and their connection with an ἀρχέτυπον γραφήν (*archetypon graphēn* [archetypal drawing]), this presents this curious image of Dee’s monas, in what looks like a flask or a vase (figure 6), with the injunction to “Know Man physically, if you desire to know true Nature” (*Nosce Hominem physicè, Physicam si noscere veram Vis*). The monas then appears in its usual form along with the hieroglyphs for the seven

⁸³ “De Philosophia Vivente seu Vitali Paracelsi iuxta P. Severinum Danum ex repetitione I. Hartmanni Chymiatri Marburgensis,” in Libavius, *Examen Philosophiae novae*, 106. “Fingis postea multa *altaria, Iconas, monumenta, exedras, nomina, Emblemata*. Tune, qui Calvinisticam amplecteris ista in tuo templo communi feras, nedum in adytis, & Sancto Sanctorum? In Dei templo unum altare esse satis est, quia & unus est Christum. Solenne est Chymicis: *omnia ab uno: omnia ad unum*, iuxta monadis hieroglyphicae mysterium. Supra tua Paracelsica veritas in punctum erat contracta.”

⁸⁴ Libavius, *De Sceuastica Artis*, sig. Hh6v. “Apud Londinatem inuenies etiam hieroglyphiam oui physici & mundi figuram ἐλιγοειδ[ῶ] decem sphaerarum ambitu continuatam. Itaque quod philosophi de ovo in suo magisterio habent, quodque in smaragdina tabula Hermes de exemplo mundano, id item repraesentatum est illa hieroglyphia.”

⁸⁵ Libavius, *De Sceuastica Artis*, Cap. VIII. “De forma artificiosa difficilior est deliberatio. Ex magni paruique mundi figura qua etiam complectitur superius à nobis producta monas hieroglyphica, conueniens erat, ipsum operis sui exemplum sumere, & rotundum schema” (sig. Ii4r). “Non id Solis dignamur luce, & extruimus in media planicie rotundo quidem capite, sed corpore inde producto in longum ad figuram microcosmi, & hieroglyphiam monadicam” (sig. Ii4v). See Newman, “Alchemical Symbolism and Concealment,” 60.

⁸⁶ Newman, “Alchemical Symbolism and Concealment,” 64.



Nosce Hominem physicè, Physicam si noscere verã
 Vis : TE si potis es noscere eamque vides.
 Quæ

Fig. 6. From J. P. Ericus, *Renatum è Mysterio Principium Philologicum* (Padua, 1656), 9.

planets. With an allusion to Dee's description of the monas as his "Seal of Hermes,"⁸⁷ Ericus claims that the letters of the alphabet, as well as the numerical system, can be deduced from "this mysterious Caduceus" (*hoc mysterioso Caduceo*).⁸⁸

What should be clear is that John Read's old dismissal of Dee as a "pseudo-chemist" needs serious rethinking.⁸⁹ As Clulee and others have suggested, Dee seems to have participated in an important new dimension taken by alchemy in the Renaissance, and to have provided one foundation for the spiritual idea of alchemy,⁹⁰ but at the same time, it should by now be apparent that Dee's books were read by some of the major players in sixteenth- and seventeenth-century physical alchemy, engaged in both gold-making and medical chemistry. Physicians to princes and potentates, such as DuChesne, Croll, and Khunrath, were familiar with his work. Croll's *Basilica* was one of the most widely read recipe books, Dorn was the author of one of the most famous alchemical dictionaries of the period, and Libavius's *Alchemia* was an influential textbook of chemistry.⁹¹ As I have shown, readers engaged with Dee's *Monas Hieroglyphica* on a mixture of levels, theoretical and practical, and material and spiritual, not to mention antiquarian, mathematical, and philological.

⁸⁷ Dee, *Monas Hieroglyphica*, sig. 4r.

⁸⁸ J. P. Ericus, *Renatum è Mysterio Principium Philologicum, in quo vocum, signorum et punctorum, tum & Literarum maxime ac numerorum origo, nec non novum variarum rerum specimen etymologicum forma dialogi propalatur* (Padua, 1656), 9–12.

⁸⁹ J. Read, *From Alchemy to Chemistry* (London: Bell and Sons, 1957; repr. New York: Dover, 1995), 75.

⁹⁰ N. H. Clulee, "Astronomia inferior: Legacies of Johannes Trithemius and John Dee," in *Secrets of Nature. Astrology and Alchemy in Early Modern Europe*, ed. W. R. Newman and A. Grafton (Cambridge, Mass.: The MIT Press, 2001), 173–74.

⁹¹ See Åkerman, *Rose Cross Over the Baltic*, 88. "If John Dee's obscure book was known only to a handful of readers outside England . . . these readers were of some consequence."

So, by way of conclusion, and as a response to Brian Vickers's remark on the obscurity of the *Monas Hieroglyphica*, I would have to agree that it is certainly one of the most opaque works I have ever read. As Clulee says at the end of his paper, "later readers of the *Monas Hieroglyphica* may not have fully understood its intricacies," and I have to include myself among that number. True, it is not discussed in hordes of texts, but it is mentioned in ones that appeared in the major alchemical collections of the seventeenth and eighteenth centuries. I would argue, however, that the question of the number of readers is not all that relevant to a work so clearly not intended for mass public consumption; as the "Arbor Raritatis" figure implies, the secrets of the monas were, and continue to be, for a scant few.