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Seeing the Word

To Susan and Åse
of course

Seeing the Word

John Dee and Renaissance Occultism

Håkan Håkansson



Lunds Universitet

Ugglan

Minervaserien 2

Cover illustration: detail from John Dee's genealogical roll (British Library, MS Cotton Charter XIV, article 1), showing his self-portrait, the "Hieroglyphic Monad", and the motto *supercaelestes roretis aquae, et terra fructum dabit suum* — "let the waters above the heavens fall, and the earth will yield its fruit". Reproduced by permission of the British Library.



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Prologue

“I come as sent by God”

Evening, May 28th, 1583. The philosopher John Dee sits in his chamber in Mortlake, deeply involved in a conversation with his assistant Edward Kelley. With trembling voice he fumes at the gossip and slander of the simple people, at the malicious whisperings about sorcery and witchcraft that seem to be humming in every street corner and every bedchamber in London. “Suddenly”, he writes in his diary, “there seemed to come out of my Oratory a Spirituall creature, like a pretty girle of 7 or 9 yeares of age”. The creature, dressed in a red and green gown, “seemed to play up and down and seemed to go in and out of my bokes lying in heaps, and as she should ever go between them, the bokes seemed to give place sufficiently, dividing one heap from the other, while she passed between them”. While the little spiritual creature “went up and down with most lively gestures of a young girle, playing with her selfe”, Dee asked her who she was, but from one of the corners of the room a threatening voice raised a warning:

“You will be beaten if you tell.”

After some anxious glances towards the corner, the girl nonetheless replied:

“Give me leave to play in your house, my Mother told me she would come and dwell here ... you let me play a little, and I will tell you who I am.”

Dee assured her that anybody who spoke truthfully had nothing to fear in his house, and she said:

“I rejoyce in the name of Jesus, and I am a poor little Maiden, Madini, I am the last but one of my Mothers children, I have little Baby-children at home.”

She refused to tell them where her home was, however, since she was afraid of getting beaten. Instead, she took out a book and enthusiastically displayed the handsome pictures of kings and celebrities from British history which it contained. After a while she begged them not to reveal her visit to anyone, whereupon she seemed to dissolve and disappear. The moment afterwards, Dee concludes, "We were earnestly called for to Supper by my folks".¹

Madini's visit was not the first of Dee's encounters with spiritual creatures. For three years his alchemical vessels had lain idle in his laboratory and his research in the mathematical sciences had been left untended, while he was pursuing his studies in natural philosophy by less orthodox means.

He was talking to angels.

In the decades before the spiritual conversations became his main preoccupation, Dee had made a name for himself as the foremost of British scholars. He had written extensively on such widely differing subjects as navigation technology, mechanics, geometry, logic, astrology, alchemy, history, heraldry and genealogy.² He had become Queen Elizabeth's confidant, treating Her Majesty's toothache as proficiently as he calculated her horoscope. Visitors came flocking from all over Europe to his home a few miles from London to see his laboratories and his imposing library, and by correspondence and travels he kept in touch with scholars on the Continent, who at times sent him their works in the hope of a competent opinion.³ He was, to

¹ Dee, *A True & Faithful Relation*, pp. 1-2. This printed edition of Dee's spiritual conferences, recording sessions performed between 1583 and 1607, was published by Meric Casaubon in 1659. Spelling and punctuation differs considerably from the original manuscript (British Library, MS Cotton Appendix XLVI) and in some occasional places passages have been omitted. However, since the printed text has been published in a number of facsimile editions and is thus easily accessible, I will primarily make use of this edition.

² Dee presents a list of 49 published and unpublished works in *A Letter, containing a most briefe discourse Apologeticall*, pp. 73-77, reprinted in *A True & Faithful Relation*, sigs. K1^r-K3^r. See also *The Compendious Rehearsall*, pp. 24-27. A detailed bibliography of the texts still extant can be found in Clulee, *John Dee's Natural Philosophy*, pp. 302-309.

³ For example, Tycho Brahe sent his *De mundi aetherei recentioribus phaenomenis* to "the most noble and illustrious John Dee" in 1590, long after the rumour of his angelic conversations had reached the European courts and cities; see French, *John Dee*, p. 5n.

put it short, a man of considerable reputation — a reputation he took a certain pride in himself: “in zeale to the best lerning and knowledge”, he confidently stated in a letter to Lord Burghley, “I know most assuredly that this land never bred any man, whose account therein can evidently be proved greater than myne”.⁴

As a boy of fifteen he was registered at St. John’s College at Cambridge University, and later he claimed that he had been

so vehemently bent to studie, that for those yeares I did inuolably keepe this in order; only to sleepe four houres every night; to allow to meate and drink (and some refreshing after) two houres every day; and of the other eighteen houres all (except the tyme of going to and being at diuine service) was spent in my studies and learning.⁵

Despite his insatiable thirst for scholarly studies, however, he allowed himself the time to construct a mechanical scarab for the performance of Aristophanes’ drama *Peace*, in which an actor was flown up to Jupiter’s palace — “whereat was great wondring, and many vain reportes spread abroad of the meanes how that was effected”.⁶ In his twenties he travelled to Antwerp and Louvain, where he made the acquaintance of famous scientists such as Gerard Mercator, Gemma Frisius and Antonio Gogava. Taking an increasing interest in astrology and applied mathematics, he also “began to make observations (very many to the houre and minute) of the heavenly influences and operations actuall in this elementall portion of the world”.⁷ From Louvain, he later claimed, “did the favourable fame of my skill in good literature so spread” that scholars from Spain, Italy and Denmark came to visit him, and when he as a precocious scholar of twenty-three arrived in Paris, he was allowed to “read freely and publicly Euclide’s Elements Geometricall” — “a thing”, he emphasized, “never done publicly in any University in Christendome”:

My auditory in Rhemes Colledge was so great, and the most part elder than my selfe, that the mathematical schooles could not hold them; for many were faine, without

⁴ Dee, “Letter to Lord Burghley, 3 October 1574”, p. 35.

⁵ Dee, *The Compendious Rehersall*, p. 5.

⁶ Dee, *The Compendious Rehersall*, pp. 5-6.

⁷ Dee, *The Compendious Rehersall*, p. 5.

the schooles at the windowes, to be auditors and spectators,
as they best could helpe themselves to.⁸

Due to his lectures — out of which “a greater wonder arose among the beholders, than of my Aristophanes Scarabeus” — he became a friend of well-known scholars such as Petrus Ramus, Guillaume Postel and Jacob Sylvius, and England’s future ambassador William Pickering seized the opportunity to be instructed by this “tall, slighthe youthe, lookyinge wise beyonde his yeares, with fair skin, good lookes and a brighte colour”.⁹

Unfortunately, the fame also had a shady side. As Elias Ashmole (1617-1692) wrote a century later, Dee’s “great *Ability* in *Astrologie*, and the more secret parts of *Learning* (to which he had a strong propensity and unwearyed *Fancy*,) drew from the *Envious* and *Vulgar*, many *rash*, *lewd*, and *lying Scandalls*...”¹⁰ In the religious tumult following the death of Henry VIII, authorities took an increasingly stern view of everything unorthodox. Mathematics and astrology was commonly associated with sorcery and black magic and the university libraries were ransacked for dubious works. “Many manuscripts, guilty of no other superstition then Red letters in the Front, were condemned to the Fire”, Ashmole ruefully claimed; “Indeed (such was Learnings misfortune, at that great Devastation of our *English Libraries*, that) where a *Red letter* or a *Mathematicall Diagram* appeared they were sufficient to entitle the *Booke* to be *Popish* or *Diabolicall*”.¹¹

During Queen Mary’s brief reign the escalating fear of witchcraft suddenly targeted Dee. Having calculated a horoscope for the royal family, he came under suspicion of having “endeavored with enchantments to destroy Queene Mary”. The Privy Council found it war-

⁸ Dee, *The Compendious Reher sall*, p. 7.

⁹ Dee, *The Compendious Reher sall*, p. 8. Pickering’s description is quoted from Deacon, *John Dee*, p. 23.

¹⁰ Ashmole, *Theatrum Chemicum Britannicum*, p. 480.

¹¹ Ashmole, *Theatrum Chemicum Britannicum*, sig. A2^v. The literature treating the belief in witchcraft during this period is vast. For a recent and comprehensive study, focused on the intellectual background of witchcraft and demonology, see Stuart Clark’s brilliant *Thinking with Demons*. See also Thomas, *Religion and the Decline of Magic*; Macfarlane, *Witchcraft in Tudor and Stuart England*; and Kittredge, *Witchcraft in Old and New England*. On how mathematics was associated with magic during this period, see Zetterberg, “The Mistaking of ‘the Mathematics’ for Magic in Tudor and Early Stuart England.”

ranted to make an investigation of what they termed his “lewde and wayne practices of calculing and conjuring”, his home was sealed and he spent the summer of 1555 behind locked doors under the stern supervision of Bishop Edmund Bonner. Apparently, the bishop could not find anything suspicious about Dee’s religious attitude, however, and he was soon allowed to return to his work.¹²

Nonetheless, spiteful gossip and slander would continue to plague him throughout his career. Why “shall any honest Student, and Modest Christian Philosopher, be counted, & called a Coniurer?” Why “shall the folly of Idiotes, and the Mallice of the Scornfull” deprive him “who seeketh ... heavenly wisdome, & knowledge of pure veritie ... his honest name and fame?”, he lamented in his colourful prose:

Should I, for my xx. or xxv yeares of Studie: for two or three thousand Markes spending: seuen or eight thousand Miles going ... only for good learnings sake: And that, in all maner of wethers: in all maner of waies and passages: both early and late: in daunger of violence by man: in daunger of destruction by wilde beastes: in hunger: in thirst: in perilous heates by day ... in daungerous dampes of colde, by night, almost bereuing life. [...] And for much more ... done & suffred, for Learning and attaining of Wisdome ... Should I (I pray you) for all this ... no more luckily, haue fished, with so large, and costly, a Nette, so long time in drawing (and that with the help and aduise of Lady Philosophie, & Queene Theologie) ... to haue catched and drawn up, a Frog? Nay, a Deuill? For, so, doth the the Common peuish Pratler Imagine and Iangle: And, so, doth the Malicious scorner, secretly wishe, & brauely and boldly face down, behinde my backe.

Wherever he turned, there seemed to be malicious rumours of his dark doings — “Are they become Deuils, them selues: and, by false wnesse bearing against their Neighbour, would they also become Murderers? [...] O Brainsicke, Rashe, Spitefell, and Disdainfull

¹² Dee, *The Compendious Reher sall*, p. 20; *Acts of the Privy Council 1554-56*, vol. V, p. 143. A balanced account of the process is given in Clulee, *John Dee’s Natural Philosophy*, pp. 33-34.

Country men. Why oppresse you me, thus violently, with your slaundering of me...?”¹³

The slander became a less impending threat when the English crown was committed to Mary’s half-sister Elizabeth Tudor, with whom Dee had already become acquainted. Before her accession, Dee was commissioned to calculate a suitable day for the coronation and the fortunate result tempted the celebrities of London to make avid use of his services as an astrologer. When “a certain image of wax, with a great pin stuck into it about the breast of it” was found at Lincoln’s Inn Fields some time afterwards, Dee was urgently summoned to the court to “prevent the mischief” which the Privy Council assumed was directed against the Queen — “I did satisfie her Majesties desire ... within few houres, in godly and artificiall manner”.¹⁴

With his family and servants he settled down in Mortlake, a few miles from London, and over the years the house was transformed into one of the largest libraries in England, lodging more than four thousand volumes in Latin, Greek, English, Spanish, German, Italian, Hebrew, Czech, Armenian and Swedish.¹⁵ To this treasure house of knowledge and learning, visitors came flocking in such a number that Dee finally requested a place of refuge where he could escape “the multitude and haunt of my common friends, and others, who visit me”:

Which thing without offense, and lose, or brech of some folkes friendship, cannot be conveniently performed, while I continually am at my house at Mortlake; the passage and way to my house there is so easy, neere, and of light cost from London or court.¹⁶

¹³ Dee, *The Mathematicall Praeface*, sigs. A.j.^v-A.ij.^r.

¹⁴ Dee, *The Compendious Rebersall*, p. 21.

¹⁵ Dee’s own description of his library can be found in *The Compendious Rebersall*, pp. 27-28. Julian Roberts and Andrew G. Watson have in an admirable way traced and identified those of Dee’s books which are still extant, a work which together with their facsimile edition of Dee’s library catalogues of 1557 and 1583 (Roberts and Watson (eds.), *John Dee’s Library Catalogue*) has brought the research on Dee into a new phase. See in particular William H. Sherman’s study *John Dee: The Politics of Reading and Writing in the English Renaissance*. It should be noted that the catalogue, including 2292 printed works and 199 manuscripts, is by no means complete. Theological literature is curiously scarce and Dee’s note that it lists the content of his “Biblioteca (Externa)” suggests that it was a selective bibliography.

¹⁶ Dee, *The Compendious Rebersall*, pp. 39-40.

Thus it was not merely his fancy for bombast that made him dub his home *Mortlacense Hospitale Philosophorum peregrinantium*, “Mortlake Hospice for wandering Philosophers”, a place so well known that Gerard Mercator addressed his letter to him with the words “To the most famous Dr John Dee, his Master and most esteemed Patron. Home at Mortlake on the Thames near London.”¹⁷

In supplications to the Queen, Dee in vain requested royal support to preserve the literary treasures of the Middle Ages lying neglected in ruined monasteries and country churches.¹⁸ In his library more than seven hundred manuscripts lay rescued from the desolation of the Reformation: “hardly gotten moniments”, Dee wrote, which he had found and lifted up

as in a manner out of a dunghill, in the corner of a Church, where very many were utterly spoiled by rotting, through the rain continually for many years before falling on them, through the decayed roofof that Church, lying desolate and wast at this houre...¹⁹

But Mortlake was not merely a library: it was a place dedicated to the wonders of knowledge, where the visitors could marvel at strange astronomical instruments, a magnet, a star globe on which “were set down divers Comettes, their places, and motions, as of me they have been observed”, and “an excellent watch-clock ... by which ... the time might sensibly be measured in the seconds of an hour, that is, not to fail the 360th part of an houre.” A “great case or frame of boxes” contained hundreds of old documents, seals and coats of arms, and on the wall or in the ceiling hung “one great bladder with about 4 pound weight, of a very sweetish thing, like a brownish gum in it, artificially prepared by thirty tymes purifying of it...”²⁰

In the outbuildings Dee had installed three alchemical laboratories, “replenished with Chemical stuff” which had taken him more

¹⁷ Dee, *The Compendious Rehersall*, p. 40; Taylor, “A Letter Dated 1577 from Mercator to John Dee”, p. 56: “Clarissimo Viro D. Joannis Dee., Domino et fautori suo plurimum colendo. In aedibus Martlaciensibus juxta Tamesim prope Londinum.”

¹⁸ See his texts “A Supplication to Q. Mary ... for the Recovery and Preservation of Ancient Writers and Monuments”, and “Articles Concerning the Recovery and Preservation of the Ancient Monuments and Old Excellent Writers.”

¹⁹ Dee, *The Compendious Rehersall*, p. 30.

²⁰ Dee, *The Compendious Rehersall*, pp. 28-30.

than twenty years to collect “with great pains, cost and danger...”²¹ Like many Renaissance scholars, Dee assiduously strove to create the Philosopher’s Stone, the substance by which all metals could be turned into gold. One has, perhaps, to assume that his attempts were as futile as everyone else’s — although his son Arthur would later claim that he as a child had used pieces of gold as toys.²²

And yet, despite his high reputation and tremendous learning, Dee never seems to have been satisfied with what he had achieved. “O God Almighty”, he pleads in one of his manuscripts, “thow knowest ... [t]hat I haue from my youth vp, desyred & prayed vnto the[e] for pure and sownd wisdom and vnderstanding of some of thy trutthes”. In “many bokes, & sundry languagis, I have sowght, & studyed; and with sundry men conferred” — yet he had not found more than “some ynklings, glyms or beame” of what he desired. Finally, he confesses, he had realized that the knowledge he desired could not be attained by any “vulgar Schole doctrine, or humane Invention”, but by God’s “extraordinary gift” only: “I haue red in thy bokes, & records, how Enoch enioyed thy favor and conversation, with Moyses thow wast familiar”; how “thy good Angels were sent, by thy disposition, to instruct them”. Indeed, did not the Scripture itself relate how God’s angels were sent to instruct the biblical prophets even “in worldly and domesticall affaires”, as when Samuel with God’s aid found the asses which Saul had lost? “And thinking wth my self, the lack of thy wisdom, to me, to be of more importance, then the Value of an Asse or two... I did fly vnto the hartly prayer, full oft, & in sundry manners...”²³

²¹ Dee, *The Compendious Rebersall*, p. 30.

²² See the quoted letters in the introduction to Arthur Dee’s *Fasciculus Chemicus*, pp. xiv-xvi.

²³ Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 8. This printed edition of Dee’s angelic conferences between 1581 and 1583 constitutes the second volume of Christopher Whitby’s dissertation *John Dee’s Actions with Spirits* (1981) and consists of a complete and very careful transcription of the original manuscript (British Library, MS Sloane 3188). In the introduction, Dee states that he had prayed “from the year 1579 in approximately this manner, in Latin or English (and furthermore in another singular and particular manner around the year 1569, sometimes for Raphael and sometimes for Michael)...” (Whitby (ed.), *Ibid.*, II, p. 6: “Ab anno 1579 hoc ferè modo: Latine, vel Anglicè; (ast circa annum 1569 alio et peculiari, particulari modo: interdum per Raphaele, interdum Michaele) ad Deum preces fundere...”) Cf. *Ibid.*, I, p. 191.)

Seated by the “show-stone” he had been given by a friend, a crystal globe of the same kind he claimed that “the high priests did vse” by God’s “owne ordering”, he raised his humble prayers to God, asking Him to send His angels to instruct him. In May 1581 he briefly noted in his diary: “I had sight in Χρυστάλλω [*Crystallo*] offerd me, and I saw.”²⁴

What he saw we will never know, but the notes in his diary suggest that the spiritual powers were beginning to pay heed to his pleas. At night his sleep was disturbed by “very strange knocking and rapping” in his chamber, inexplicable fires arose in the house and several times he heard a voice “somewhat like the shrich of an owle, but more longly drawn, and more softly, as it were in my chamber”.²⁵ Soon, however, Dee seems to have realized that he did not possess the necessary gift himself and he made inquiries for an experienced “scryer”, capable of seeing “Spirituell apparitions, in Christalline receptacles, or in open ayre”, to assist him in his spiritual endeavours. Over the months, a string of more or less self-appointed crystal gazers replaced each other in front of his stone, but without satisfactory results.²⁶

The turning-point came in March 1582. A certain “Mr. Edward Talbot” had some days earlier been introduced to Dee by a friend who had visited him at Mortlake. In the evening on the 10th of March, Talbot arrived alone and said that he was “willing and desyrous to see or shew something in spirituall practise”. At first, Dee excused himself “as not, in the vulgarly accownted Magik, neyther studied or exercised”. “But”, he continues in his diary,

[I] confessed myself long tyme to have byn desyrous to have help in my philosophical studies through the company and

²⁴ Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 8; Dee, *The Private Diary*, p. 11. Dee occasionally uses the Greek alphabet, with the English or Latin spelling retained, in his manuscripts, presumably to prevent members of his household to read his private notes.

²⁵ Dee, *The Private Diary*, pp. 7, 11, 12.

²⁶ The material on these early sessions is scarce and only two scryers are known by name, Barnabas Saul and Bartholomew Hickman. Whitby discusses what is known about them and points to several other possible candidates in *John Dee’s Actions with Spirits*, I, pp. 49-54. An early conversation with the angel Anael, performed in December 1581 and with Barnabas Saul acting as scryer, is recorded in MS Sloane 3188, fols. 8^v.

information of the blessed Angels of God. And thereuppon, I brought furth to him my stone in the frame (which was given me of a frende), and I sayd unto him that I was credibly informed that to it (after a sort) were answerable Aliqui Angeli boni. [...] He then settled himself to the Action, and on his knees at my desk, setting the stone before him, fell into prayer and entreaty, & c. In the mean space, I in my Oratory did pray and make motion to God and his good creatures for the fundering of this Action. And within one quarter of an hour (or less) he had sight of one in the stone.²⁷

The angel that appeared in the stone turned out to be Uriel, the governor of the earth and the southern cardinal point. Over the years to come, however, they were to perform innumerable sessions which would make them acquainted with Gabriel, Michael and Raphael, as well as with lesser known spirits, such as Nalvage, Murifri, Ath, Levanael, Bnapsen, Bobogel, Azdobn, Panlacarp, Jubanladace, Aphlafben and Lundrumguffa.

A few months later it turned out that “Talbor” in reality was an apothecary of twenty-seven from Worcester, named Edward Kelley. Whether the rumours of his capacity to create gold are reliable is perhaps hard to ascertain, but it seems that the judicial system in Lancaster had found it warranted having his ears cropped for counterfeiting.²⁸ Nonetheless, Dee’s confidence in Kelley remained unswerving once he had attained his longed-for acquaintance with the angels. While Kelley’s senses seemed to become increasingly acute and at times allowed him to perceive spirits without either crystal or invocations, Dee usually remained incapable of seeing the angels gathering in his house. When Madimi strolled about amongst his books, Dee noted that he several times “heard the strokes my self”, but told the angel that “I see you onely by faith and imagination”. The angel,

²⁷ Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 16-17.

²⁸ The most reliable information on Kelley can be found in Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 43-49. Casaubon presents a number of more or less imaginative rumours on Kelley’s practicing of black magic and necromancy in a “postscript” to his preface to *A True & Faithful Relation*.

however, comforted him by pointing at Kelley and remarking that Dee's sight was "perfecter than his".²⁹

It is possible that the angel's reply was an acid remark on Kelley's insufficient confidence in the angels. From time to time Kelley expressed doubts regarding the messages of the angels, and when he found information in Agrippa's well-known work *De occulta philosophia* corresponding to the angelic revelations, he furiously claimed "that our spiritual Instructors were Coseners to give us a description of the World, taken out of other Books".³⁰ Kelley's choleric temper and incessant outbursts turned into a constant source of uneasiness to Dee. With a noticeable lack of appropriate humility, Kelley nonchalantly rebuffed the angels for speaking foreign languages like Syrian or Greek — "Unlesse you speak some Language which I understand, I will expresse no more of this Ghybbrish." In his diary Dee noted his anxiety: "My heart did throb oftentimes this day, and thought that E. K. did intend to absent himself from me."³¹

How those few persons outside Dee's household who were given a glimpse of the angelic conversations reacted we do not know. We can surmise, however, that they were not always convinced of the authenticity of the revelations, not least since God's heavenly host of angels appeared to possess qualities that at times seemed strangely temporal. The angel Il was "a very mery Creature, and skyped here and there, his apparel was like as of a vyce in a play; and so was his gesture and his scoffing".³² The angel Galua'h showed only a mild interest in Dee's appeals: "Ah Sirra I was a weary, ask me these things tomor-

²⁹ Dee, *A True & Faithful Relation*, p. 31. The question of whether Dee actually perceived the spirits himself or was "merely deceived" by Kelley — whatever sense this distinction is believed to make, since he had no reason to doubt the phenomenon of spirits — has, of course, been widely discussed. That he occasionally had experiences of his own is beyond question, however. At one occasion he writes that "I fele: and (by a great thundering noyce, thumming thuming [sic] in *myne* eares) I perceyue the presence of some spirituall creature abowt *me*" (Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 176). Generally, however, his manner of relating the conversations as if he personally witnessed the spectacle, while the context makes it clear that he is relating the words of Kelley, makes it impossible to ascertain Dee's own experiences.

³⁰ Dee, *A True & Faithful Relation*, pp. 158-159.

³¹ Dee, *A True & Faithful Relation*, pp. 27-28.

³² Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 331.

row.”³³ Others demonstrated a strikingly human gamut of passionate outbursts, memory troubles and vanity when they were subject to troublesome inquiries. On the other hand, they turned out to be unexpectedly musical, joining in melodious concerts with onion-shaped flutes with 49 holes while they “daunsed, lepe and kissed” — “These Musiciens play, one with an other, iestingly they bobbed one an other, and then played agayn”.³⁴

Sometimes even Dee was troubled by doubts, and in the margin of his manuscripts he noted when it seemed likely that they were dealing with “wicked” and “illuding Spirites”, rather than God’s “good Angels”.³⁵ Occasionally, these sporadic visits of evil spirits also resulted in violent encounters. While working at his table, “three or fowre spirituall creatures like laboring men, hauing spades in their hands & theyr heares hanging [sic] about their eares” appeared beside Kelley. Dee, working in the same room, composedly “bad them be packing out of the place”, but Kelley

cried out and sayd they *had nipped him and broken his left arme by the wrest ... they assalted him*, and he rose, and cryed to me they come flying on me, they come; and he put the stole, which he sat on, betwene him and them. [B]ut still they cam gaping or gryning at him. ... and then I toke the stik and cam to the place, and in the name of Jesus commaunded those Baggagis to avoyde and smitt a cross stroke at them and presently they avoyded. All thanks be to the onely one Almighty, and everlasting God.³⁶

To a modern reader Dee’s diaries might seem like figments of a slightly hallucinatory imagination, and it is tempting to disregard the earnest motives behind his attempts, choosing instead to narrate his efforts in the form of a comedy, or, perhaps, a tragedy — which indeed has often been his undeserved fate. But this would be to overlook the fact that many of Dee’s contemporaries regarded communi-

³³ Dee, *A True & Faithful Relation*, p. 13.

³⁴ Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 177, 180. Cf. MS Sloane 3188, fol. 52^r, where Dee has carefully depicted “The Forme of theyr Musicall Instrument”.

³⁵ See, for example, Dee, *A True and Faithful Relation*, pp. 30, 67, 77; and Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 325, 339.

³⁶ Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 325-326.

cation with spiritual beings as a fully feasible way of obtaining knowledge. If Dee's conversations were considered controversial, they were so on account of their practical fruitfulness — he was after all convinced that he had succeeded in his attempts — and of the ethical risks they involved. Their theoretical possibility, however, was not question.³⁷ Nor were the angelic conversations unique with regard to their purpose. Dee's attempts to "have help in my philosophical studies through the cumpany and information of the blessed Angels of God", as he put it, rested on a long-standing tradition in which *language* was envisaged as the key to a perfect knowledge of the world. The chief purpose of Dee's angelic conversations was in fact to learn to understand and speak the language of the angels. In his manuscripts we find page after page listing words in a painstaking attempt to create a form of angelic vocabulary.³⁸

37	MASRG	<i>with admiration</i>	GRSAM a stop at M Δ. as Gursam
36	HELOBO	<i>your Garments</i>	OBOLEH
35	SBRU	<i>beautified</i>	URBS
34	SD	<i>and D which</i>	DS

Even more toilsome were their attempts to reconstruct the intricate tables of letters dictated to them by the angels, in which seemingly random letters were placed in hundreds of small squares (fig. 1). Combined according to a set of rules that was never fully explained, these letter were intended to form a vast amount of words in the angelic language; words which would yield a complete knowledge of the things they designated. "*I will raze out dulnes, and at length, make*

³⁷ There were, of course, influential critics, such as Pietro Pomponazzi, to whom the mere possibility of such communication was anathema, since spiritual entities, though certainly existent, could not in any possible way participate in the material world. Pomponazzi's position can hardly be viewed as the dominant one, however, and ritual magic and demonology were subjects that attracted considerable attention in early modern scholarship. For a recent and comprehensive study, see Stuart Clark's *Thinking with Demons: The Idea of Witchcraft in Early Modern Europe*, and his earlier essay "The Scientific Status of Demonology". Some of these issues are discussed below in part III.

³⁸ The example is from Dee, *A True & Faithful Relation*, p. 85. Similar lists can be found on pp. 83-88, 94-100, 109-111, 119-138, 142-145, 148-152, 200-208, and in MS Sloane 3191, art. 1.

The image shows a page from a manuscript, folio 17r, containing a large table of letters and numbers. The table is organized into multiple columns. The top section has two columns of numbers (1-26) and two columns of letters (A-Z). Below this, there are several rows of text, each starting with a letter (A-Z) followed by a series of numbers and letters. Some sections are highlighted in red ink, and others in black ink. The text is written in a Gothic script. The table appears to be a complex cipher or a key for a magical or alchemical text.

Fig. 1. Table of letters from *Liber Logaeth*. The British Library, MS Sloane 3189, fol. 17r. Reproduced by permission of the British Library.

the[e] clere”, the angel Michael declared when displaying the tables of letters, bound in a book in which “all the leaves are, as though they are gold, and it semeth written with *blud, not dry*”: “What water recreateth more or cooleth *ignorence deeper than the knowledg of our Celestiall speche*.”³⁹ Once they had learnt to master these tables, they would yield an “Vnderstanding of *all Sciences*, that are past, present or ... yet to come” — “What lerning, grownded *vppon* wisdome, with the *excellencies of Nature*, cannot they manifest.”⁴⁰ As the angel Nalvage explained, these tables of seemingly random letters contained “the mystical and holy voices of the Angles, the very *language* and speech of Children and Innocents”, by means of which they would

³⁹ Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 226, 232.

⁴⁰ Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 171, 189.

“easily be able to judge, not as the world doth, but perfectly of the world, and of all things within the Compasse of Nature”.⁴¹ The language Dee so desperately tried to understand constituted the key to a consummate knowledge of the entire creation.

Dee’s attempt to gain knowledge of the world by mastering this “celestial speech” had honourable roots, stretching to the very beginning of history. As the angel Gabriel explained, this language had been spoken by the very first man, Adam, when he dwelled in the Garden of Eden:

Man in his Creation, being made an Innocent, was also authorised and made partaker of the Power and Spirit of God: whereby he did not onely know all things under his Creation and spoke of them properly, naming them as they were: but also was partaker of our precence and society, yea as a speaker of the mysteries of God; yea with God himself...⁴²

This angelic revelation reflects a common notion in early modern philosophy, ultimately rooted in the biblical Genesis. When Adam had been created out of earthly dust, he was brought to the Garden of Eden to name all the living creatures — “and whatsoever Adam called every living creature, that was the name thereof”. In Scripture it was stated that he accomplished this task by designating the creatures “by their own names”, *nominibus suis*, a phrase implying that he bestowed names upon the creatures which in some sense constituted their true and proper designation, names that were in agreement with their true natures.⁴³ By being “partaker of the Power and Spirit of God” he also knew all things and “spoke of them properly, naming them as they were”, as the angels put it.

Through the Fall, however, man had lost his divine speech, as well as his perfect knowledge. Enticed into destruction by Satan’s temptations, the angel Gabriel proclaimed, Adam had

lost the Garden of felicity, *the judgement of understanding*: but *not utterly* the favor of God, and was driven forth (as your Scriptures record) unto the Earth which was covered with brambles: where being as dumb, and not able to speak,

⁴¹ Dee, *A True & Faithful Relation*, pp. 64, 77.

⁴² Dee, *A True & Faithful Relation*, p. 92.

⁴³ Genesis 2:7, 2:19-20.

he began to learn of necessity the Language ... in which he uttered and delivered to his posterity, the *nearest knowledge he had of God his Creatures...*⁴⁴

According to this account, language and knowledge seem to have constituted two sides of the same coin. The moment Adam lost his divine comprehension, he became “as dumb, and not able to speak”, and was therefore forced to create a new language, a language which according to the angels had been closely akin to Hebrew. The difference was that contemporary Hebrew lacked its

*true forms and pronuntiations ... and therefore is not of that force that it was in his own dignity, much lesse be compared with this that we deliver, which, Adam verily spake in innocency ... wherein the power of God must work, and wisdom in her true kind be delivered...*⁴⁵

Man’s fall from grace was, in effect, not irrevocable. Whereas contemporary tongues were “but fayned: shadows of the wordes and voyces that substantially do comprehend euery substance”, the angels were still in possession of that language by means of which Adam’s lost knowledge could be restored.⁴⁶ By learning this language, this “*lingua Angelica, vel Adamica*”, Dee and Kelley would be turned into “perfect men: for *Adam* understood by that grace, and his eyes were opened so that he saw and knew all things that were to his understanding”.⁴⁷ By the grace of God, they had been chosen to redeem Adam’s Fall and take his seat as those who could speak of “the mysteries of God; yea with God himself...”

While the months were passing, however, Dee and Kelley realized that they were in need of financial support to pursue their investigations. At the court they made inquiries for a suitable patron, pointing out that the angelic conversations also carried the prospect of an abundant profit, since Kelley had been directed by an angel to an ancient book, a scroll, and a bottle containing a mysterious powder hidden at Northwich Hill, by which they would learn to master the

⁴⁴ Dee, *A True & Faithful Relation*, p. 92.

⁴⁵ Dee, *A True & Faithful Relation*, p. 92.

⁴⁶ Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 232-233.

⁴⁷ Dee, *A True & Faithfull Relation*, ‘Actio Tertia’, p. 26.

secret of gold-making.⁴⁸ Shortly afterwards, the Polish count Albert Laski yielded to the promises and in September 1583, they weighed anchor to travel to Krakow via Brill, Rotterdam, and Stettin.

Before long, however, it became evident that the sojourn in Poland would fall short of their expectations. Their work gave rise to a number of more or less imaginative rumours and Count Laski grew increasingly impatient at the lack of concrete results. The angels' alchemical instructions were often vague and imprecise in character and were rendered even more difficult by their habit of using the angelic language in their accounts. During a session the angel Leva-nael explained:

Take common Audcal, purge and work it by Rlodnr of four divers digestions ... untill it be Dlafod fixed a most red and luminous body ... Take also Lulo of red Roxtan, and work him through the four fiery degrees, until thou have his Audcal, and there gather him ... So doth it become Darr, the thing you seek for...⁴⁹

Later it was explained that *dlafod* meant sulphur, *lulo* "tartar, simply of red wine", *roxtan* "pure and simple wine", and *audcal* gold. *Darr* probably referred to the Philosopher's Stone, but what *rlodnr* was supposed to mean was never clarified.

Soon only Dee seems to have had any fervour left. Even Kelley began to doubt that the conversations were leading anywhere and accused the angels of being "deluders, and no good, or sufficient Teachers, who has not in two years space made us understand, or do somewhat".⁵⁰ In frustration he let his choleric temper loose on both servants and his disconsolate wife, whom he had married on the somewhat rash advice of the angels — "I cannot abide my wife, I love her not, nay I abhor her."⁵¹ After some months, the Polish king gave Count Laski to understand that the company's presence in the country was not appreciated and the anxious count asked them to travel to Prague until the Polish climate had turned more benevolent.

⁴⁸ On this incident, see Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 220.

⁴⁹ Dee, *A True & Faithful Relation*, p. 387.

⁵⁰ Dee, *A True & Faithful Relation*, p. 91.

⁵¹ Dee, *A True & Faithful Relation*, p. 30. Cf. Dee's remark that Kelley "wold not willingly deale with the former Creatures [i.e. the angels]: vtterly misliking and discrediting them, bycause they *willed him to marry*". (Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 130.)

Once they had settled in Prague in August 1584, Kelley's fits of rage turned even more violent. "Satan is very busy with E. K. about this time", Dee noted in his diary, and after one of Kelley's scuffles with a servant he mournfully remarked:

The rage and fury was so great in words and gestures, as might plainly prove, that *the wicked enemy sought either E. K. his own destroying of himself, or of me, or his brother, &c.* This might suffice to notifie the mighty temptation and vehement working of the subtile spiritual enemy Satan, wherewith God suffered E. K. to *be tempted and almost overcome*: to my great grief, discomfort, and most great discredit: if it should (as the truth was) have come to the Emperours understanding...⁵²

But Dee's anxiety does not seem to have shaken his confidence when he finally obtained an audience with the Emperor Rudolph:

"I do not come to You, O Highest Caesar, for the sake of Your wealth, so that I might myself become wealthy, but as sent by God."⁵³

For more than forty years, he explained to the listening emperor, he had "with great pain, care, and cost" striven for knowledge and learning. Finally, however, he had realized that

neither any man living, nor any Book I could yet meet withal, was able to teach me those truths I desired, and longed for: And therefore I concluded with my self, to make intercession and, prayer to the giver of wisdom and all good things, to send me such wisdom, as I might know the natures of his creatures ... and at length it pleased God to send me his Light, whereby I am assured of his merciful hearing of my long, fervent, constant and continual prayer ... His holy Angels, for these two years and a half, have used to inform me: and have finished such work in my hands, to

⁵² Dee, *A True & Faithful Relation*, pp. 229-230. Much of the material suggests that Kelley indeed was mentally ill, not the least the frequently recurring fits of rage. At other occasions he was afflicted with "a thing (immediately creeping within his hed ... [he] remayned much misliking the moving and creeping of the thing in his hed." (Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 258.)

⁵³ Dee, *A True & Faithful Relation*, p. 245: "Non veni ad vos O Serenissime Caesar propter divitias vestras, ut inde ego dives fierem, sed a Deo missus."

be seen, as no mans heart could have wished for so much...⁵⁴

After these introductory declarations he abruptly changed tone and discharged an audacious speech of admonition at the emperor:

“The Angel of the Lord hath appeared to me, and rebuketh you for your sins. If you will hear me, and believe me, you shall Triumph: If you will not hear me, the Lord ... putteth his foot against your breast, and will throw you headlong down from your seat.”⁵⁵

The Emperor Rudolph seems to have been unimpressed, however, and in his diary Dee despondently summarized his reaction:

The Emperour said, at another time, he would hear and understand more. I spake yet somewhat more in the purposes before, to the intent they might get some root, or better stick in his minde. To be short, he thanked me, and said he would henceforward, *take me to his recommendation and care*, and some such words (of favour promised) he used, which I heard not well, he spake so low.⁵⁶

The audience was over. A few days later Dee was told that the emperor, in spite of his diplomatic phrases, considered the angelic conversations “either incredible, or impossible”, and Dee furiously complained that people regarded him as a “bankrupt Alchemist, a Conjuror, and Necromantist: who had sold his own goods, and given the lord Laskie the money”.⁵⁷

To crown it all, Dee’s pregnant wife Jane was stricken with a “grievous disease” and he reluctantly turned to the angels with his worldly concerns. During some lengthy sessions, the angels embroiled themselves in obscure discussions about the influences of celestial rays, the proportions of the soul, the patient’s time in her mother’s womb, and the deficiencies of her entrails. A short intermission was announced — “come again after Diner” — whereupon Dee received the prescription: one pint wheat, eleven ounces amber, one ounce turpentine, and a living pheasant-cock were to be distilled and par-taken. He objected worriedly that “concerning a Pheasant-Cock, I know not how or where to get it”, while Kelley acidly asked the an-

⁵⁴ Dee, *A True & Faithful Relation*, p. 231.

⁵⁵ Dee, *A True & Faithful Relation*, p. 231.

⁵⁶ Dee, *A True & Faithful Relation*, p. 231.

⁵⁷ Dee, *A True & Faithful Relation*, p. 247.

gels if they could not find a more convenient remedy. Duly Dee noted in the margin: "E. K. his malicious tongue against God and his good angels."⁵⁸

While the weeks were passing and Jane recovered, their financial situation grew increasingly insufferable. To make ends meet, the household utensils were pawned in the Jewish districts of Prague, while Dee in vain appealed to Emperor Rudolph for the support he had been promised. Even the angels seems to have decided to make them subject to awkward trials. To their astonishment, Dee and Kelley were ordered to burn the manuscripts in which they had collected their work, and in the presence of witnesses they put a number of manuscripts on the fire in one of the ovens of the house.⁵⁹

A few days later, an angel dressed up as a gardener manifested himself to Kelley, serenely wandering in the garden where he "seemed very handsomly to prune some of the Trees". In Latin, the spiritual creature asked Kelley to send for his master, "so went away as it were cutting here and there the Trees very handsomly", whereupon "he seemed to mount up in a great pillar of fire". Left behind in the grass were some of the manuscripts which "were so diligently burnt the tenth day of April last". When Dee arrived, they sat together under the trees, "praising God and wondring at the miracle". "Suddenly", Dee continues, "appeared by us the self-same Gardiner like person, but with his face somewhat turned away. He said, Kelley, follow me, E.K. went, and I sat still, awaiting his return." When Kelley returned, he told Dee how he had been guided by the angel — "his feet seemed not to touch the ground by a foot height [and] the doors did seeme to open before him" — to the oven "*where all the Books and papers had been burnt...*" From the oven a bright light seemed to emerge, "*and so over his shoulder backward he did reach to E. K. all the rest of the standing books...*"⁶⁰

The angels' unwavering encouragement did not put a damper on the increasingly harsh protests of the Church, however, and finally Emperor Rudolph yielded to the pressures of the Pope and informed the

⁵⁸ Dee, *A True & Faithful Relation*, pp. 249, 253.

⁵⁹ This incident is not related in MS Cotton Appendix XLVI, and is hence missing from Casaubon's printed edition. A detailed account can be found in MS Ashmole 1790, art. 1 (Bodleian Library, Oxford), published in translation by C. H. Josten: Dee, *Praefatio Latina in Actionem Primam ex 7 ...* 1586, pp. 250-255.

⁶⁰ Dee, *A True & Faithful Relation*, pp. 418-419.

company that they had to leave Prague within six days.⁶¹ In the following weeks they travelled from Erfurt to Leipzig, back to Erfurt, and further on to Kassel. In every town it seemed impossible to find suitable accommodation, and in their trail followed the Italian priest Francisco Pucci, a former friend and member of the household, who courtly appealed to them to come to the Pope in Rome to discuss the misunderstandings which seemed to have arisen.

The rescue from the grip of the Inquisition turned up in the form of an invitation to the country castle of Count Vilem Rozmberk in southern Bohemia. Comfortably settled in his chambers, Dee tried to resume the angelic conferences with renewed fervour, but Kelley showed himself increasingly reluctant to deal with the angels. In desperation, Dee made some futile attempts to use his eight-year-old son Arthur as scribe, and during some short sessions the boy thought he discerned some vague figures in crowns and mantles, whereupon he fainted from the strain. Reluctantly Kelley resumed his place by the crystal stone and after a few moments he reported strange scenarios. Madimi, who in the years had become a young woman, manifested herself to him and, patently astounded, Kelly exclaimed:

“Madimi openeth all her apparel, and [shows] her self all naked; and sheweth her shame also.”

After a sequence of invectives — “Fie on thee, Devil avoid hence with this filthiness, &c.” — Kelley accused the angel of exposing “provocations to sin”.⁶² Irritated, she retorted:

“You are fools, and of little understanding: This day saith God unto you, Behold you are become free: Do that which pleaseth you...”

In the name of the Lord she assured them that “if you resist not God, but shut out Satan (through unity amongst you) ... [you will] become full of understanding, and in knowledge above common men.”⁶³

The angel’s renewed promises of heavenly knowledge caused Dee to burst out in passionate praises, since he, as he wrote, was

⁶¹ On the Church’s reaction against Dee’s angelic conversations, see Dee, *Praefatio Latina in Actionem Primam ex 7 ... 1586*, especially pp. 228-232. For a discussion, see Harkness, *John Dee’s Conversations with Angels*, pp. 56-59.

⁶² Dee, *A True & Faithful Relation*, ‘Actio Tertia’, pp. 9-10.

⁶³ Dee, *A True & Faithful Relation*, ‘Actio Tertia’, pp. 10-11.

thinking that it was easie for us to perform that unity which was required to be amongst us four; understanding all *after the Christian and godly sense*. But E. K. who had yesterday seen and heard another meaning of this unity required, utterly abhorred to have any dealing with them farther...⁶⁴

After a moment of silence the true message of the angel finally escaped Kelley's lips — "that we two had our wives in such sort, as we might use them in common..." When the implication of the message had finally dawned upon Dee, he demanded an unambiguous answer to whether the unity between them concerned "Carnal use (contrary to the law of Commandment) or of Spiritual love..."⁶⁵ In the crystal, a scroll with a Latin text manifested itself: "It is of both kinds I say: [...] Because all things are possible and allowed to the divine. Neither are the sexual organs more abominable to them than the faces of the mortals."⁶⁶

"Hereupon we were in great amazement and grief of minde", wrote Dee, who now began to doubt the angels' infallibility. At dinner he "found means to make some little declaration of our great grief (mine chiefly) now *occasioned*" in the presence of the perplexed women, who, understandably enough, demanded further evidence before the arrangement was put into practice.⁶⁷

In the evening a small angel appeared, whose message — that they "did evil to *require proof*" — was supported by a vigorous description of the punishment awaiting the godless. Toward the morning Dee found his wife awake in bed and, unable to conceal his mixed emotions, he soothed her and argued alternately:

Jane, I see that there is no other remedy, but as hath been said of our *cross-matching*, so it must needs be done ... Thereupon she fell a weeping and trembling for a quarter of an hour: And I pacified her as well as I could; and so, in the fear of God, and in believing of his Admonishment, did perswade her that she shewed her self prettily resolved to be

⁶⁴ Dee, *A True & Faithful Relation*, 'Actio Tertia', p. 11.

⁶⁵ Dee, *A True & Faithful Relation*, 'Actio Tertia', p. 11.

⁶⁶ Dee, *A True & Faithful Relation*, 'Actio Tertia', p. 12: "De utroq; loquor: [...] Omnia, enim, possibilia & licita sunt superis. Neque magis odiosa sunt pudenda illis, quam mortalium quorumcumque vultus."

⁶⁷ Dee, *A True & Faithful Relation*, 'Actio Tertia', p. 12.

content *for God his sake and his secret Purposes*, to obey the Admonishment.⁶⁸

The following day, the archangel Gabriel gave his authoritative support to the arrangement:

“All these things are from me, and permitted to you [*Hec omnia à me sunt, & licita sunt*] ... you are chosen from the number of men to walk with him, and to understand his mysteries...”

At Gabriel’s words, Dee was “greatly rejoiced in spirit and was utterly resolved to obey this new Doctrine to us, peculiarly, of all people of the world enjoined.”⁶⁹ In the chapel the four parties signed a written affirmation to obey the command of God — even though the “profound wisdom *in this most new and strange doctrine* ... is above our human reason...” In the document they certified that “whosoever of us should by any means disclose the same [doctrine], and he also or she to whom the same should be disclosed, should presently and immediately be stricken dead by thy Divine power”. They emphasized piously that the “cross-matching” was not

accepted, done, or performed upon carnal lust, or wanton concupiscence; But by the way of *Abraham-like faith and obedience*, upon thee, our God, our Leader, Teacher, Protector and justifier, now and forever. And hereunto we call the holy Heavens to be witnesses, for thy honour and glory (O Almighty God) and our discharge, now and forever. *Amen.*⁷⁰

The printed edition of Dee’s manuscripts, published by Meric Casaubon more than seventy years later, is mercifully silent about how the “cross-matching” proceeded. In Dee’s personal calendar, however, there is a terse note, “Pactum, factum”, made a few days after the agreement was signed,⁷¹ and in the original manuscript we find a passage violently crossed out with repeated strokes of ink, beneath which one can still discern the notes from a conversation with an unnamed angel:

⁶⁸ Dee, *A True & Faithful Relation*, ‘Actio Tertia’, pp. 12-13.

⁶⁹ Dee, *A True & Faithful Relation*, ‘Actio Tertia’, p. 16.

⁷⁰ Dee, *A True & Faithful Relation*, ‘Actio Tertia’, pp. 16-17, 21.

⁷¹ Oxford, Bodleian Library, MS Ashmole 488, fol. 98^r.

[the angel —] Kelley: was thy brothers wife obedyent & humble vnto the[e?]

EK — she was.

[the angel —] Dee was thy brothers wife obedyent vnto the[e?]

Δ — she was obedyent.⁷²

The angels' request appears to have opened a chasm of doubt, coldness and envy between them all. In the manuscripts it is noted how Jane "covenanted with God to abstain from the eating of fish and flesh untill his Divine Majesty satisfie their mindes according to his Laws established", and in a written note Kelley denied all participation in that "Doctrine damnable".⁷³ Gradually, the sessions diminished in number until they had ceased completely. While Dee spent his time brooding, Kelley devoted most of his time to alchemical experiments of his own and to resumed attempts to find patrons in Prague. Ironically, he had soon succeeded where Dee had so utterly failed, and in February 1588 he finally turned his back on Dee and travelled to Prague as the Imperial Alchemist of Emperor Rudolph. His career was brief, however, for within a few years he had been put behind bars by Emperor Rudolph, according to Ashmole's slightly unreliable account because he "had so unwarily and openly managed the *Secrets*, that it had given the *Emperour* occasion to carry a strict *Eye* over all his *Actions*, out of a desire to be sharer, with him in his good fortune". During a daring attempt to escape, in which he had tied together his sheets to climb out of his window, Kelley took a fall and was so severely hurt that he passed away a few months later, at the age of forty, in October 1595.⁷⁴

Meanwhile, Dee had settled to return to England with his family, declining a generous invitation to the court of Ivan the Terrible in Moscow, where he was offered to "enjoy at his Imperial handes £2000 sterling yearly stipende; and of his protector yearly a thousand rubbles; with my diet also to be allowed me free out of the empe-

⁷² British Library, MS Cotton Appendix XLVI, II, fol. 218'.

⁷³ Dee, *A True & Faithful Relation*, 'Actio Tertia', p. 18.

⁷⁴ Ashmole, *Theatrum Chemicum Britannicum*, p. 483. Ashmole admits that this account is based on hearsay and there is no material to corroborate it. According to Dee's diary, he was informed in October 1593 that Kelley had been released from prison and in November 1595 he briefly notes "the newes that Sir Edward Kelley was slayne". See Dee, *The Private Diary*, pp. 46, 54.

roure's own kitchen".⁷⁵ After a sojourn in Bremen, where he awaited Kelley's return in vain, they finally arrived in London in December 1589. After six years of incessant travelling through Europe in search of patronage and acknowledgement, he found his library in Mortlake plundered by employees and acquaintances, his laboratory instruments "most barbarously spoiled and with hammers smitten in pieces", and the slanderous voices as loud as ever.⁷⁶

Despite the myths surrounding his persona, Dee's engagement in angelic magic did not harm his position in the British capital. After his return, Queen Elizabeth's support was as firm as ever and visitors came streaming to Mortlake in as abundant numbers as before.⁷⁷ His diary records recurrent visits from Lord Willoughby, the Archbishop of Canterbury, Sir Robert Cecil and the Queen herself.⁷⁸ When Dee's daughter Madimi — named after the angel who initiated the "cross-matching" — was baptized in March 1590, Sir George Cary, Lady Cobham, and Lady Walsingham willingly assumed the role of her godparents, and five years later his daughter Margarite was brought to the baptismal font by the Countess of Cumberland and the Countess of Essex.⁷⁹

Yet the familiar gossip about demonic exercises continued to torment him and people's imagination was constantly fuelled by his life in Mortlake. In August 1590, Dee noted in his diary: "Ann my nurse had long byn tempted by a wycked spirit: but this day it was

⁷⁵ Dee, *The Compendious Rehearsall*, p. 9.

⁷⁶ Dee, *The Compendious Rehearsall*, p. 28. Dee's account of how his library and laboratories were spoiled during his stay on the Continent has given rise to a widespread myth of how a "mob" burst into his home to burn his books on stake. In reality, it was employees and friends who took considerable liberties in the belief that he would never return. How — and by whom — the library was plundered is carefully treated in Roberts and Watson (eds.), *John Dee's Library Catalogue*, pp. 50–52.

⁷⁷ On Queen Elizabeth's support after Dee's return, see Dee, *The Compendious Rehearsall*, p. 14 and Dee, *The Private Diary*, pp. 32, 35–37, 42.

⁷⁸ Dee, *The Private Diary*, pp. 35–37, 40, 47, 49.

⁷⁹ Dee, *The Private Diary*, pp. 33, 53. Cf. MS Ashmole 488, fol. 142^v. Dee's daughter Madimi is in Halliwell's edition of Dee's diary mentioned as 'Madinia', but is named 'Madimi' in the genealogical table Dee delineated in the margin of Hywel Dda, *Leges Walliae* (Oxford, Merton College, MS 323, fol. 1'), conveniently reproduced in Sherman, *John Dee: The Politics of Reading and Writing in the English Renaissance*, p. 108.

evident how she was possessed of him.” A few days later, he made a futile attempt to help her: “I did very devoutly prepare myself, and pray for vertue and powr and Christ his blessing of the oyle to the expulsion of the wycked; and then twyse anoynted, the wycked one did resist a while.”⁸⁰ But the exorcism was of no avail and a week later he noted how she “wold have drowned himself in my well, but by divine Providence I cam to take her up befor she was overcome of the water”. In September he laconically summarized the tragic finale of the episode:

Nurse Ann Frank most miserably did cut her owne throte, afternone abowt four of the klok, pretending to be in prayer before her keeper, and suddenly and very quickly rising from prayer, and going toward her chamber, as the mayden her keeper thought, but indede straight way down the stayrs into the hall of the other howse, behinde the doore, did that horrible act; and the mayden who wayted on her at the stayr-fote followed her, and missed to fynde her in three or fowr places, tyll at lenght she hard her rattle in her owne blud.⁸¹

Over the years, Dee’s health grew increasingly poor and in the diary he noted how he cured “a great fit of the stone in my left kidney” with some white wine, “crab’s eys in powder with the bone in the carp’s head, and abowt four of the klok I did eat tosted cake buttered, and with suger and nutmeg on it ... and I voyded within an howr much water, and a stone as big as an Alexander seed. God be thanked!”⁸²

Supported by the archbishop, he requested the office as master of the Hospital of St. Cross in Winchester, and his supplications indicate far-reaching and ambitious plans. The institute would be transformed into an academy containing the largest library in England, a printing press and laboratories for “exercises in perspective and other works philosophicall”. To this place “rare and excellent men from all parts of Christendome (and perhaps some out of farder regions)” would come to work — even “special men”, he added in a cryptic passage, that “would be loath to be seene or heard of publickly

⁸⁰ Dee, *The Private Diary*, p. 35.

⁸¹ Dee, *The Private Diary*, pp. 35-36.

⁸² Dee, *The Private Diary*, p. 48.

in court or city”.⁸³ But the vision came to nought, and in his diary he petulantly noted that his request was “graunted after a sort” by the Queen but that she had left the final decision to the Archbishop, who on second thoughts had changed his mind — “I take myself confounded for all suing or hoping for anything that was. And so adiew to the court and courting tyll God direct me otherwise. The Archbishop gave me a payre of sufferings to drinke. God be my help if he is my refuge. Amen.”⁸⁴

He reluctantly accepted an office as warden of Christ College in Manchester, where the local authorities, faced with occurrences of demonic possession in the region, consulted his expertise in spiritual matters.⁸⁵ A few years later, however, he was back in Mortlake, disappointed with the intrigues and gossip of his colleagues.

When the Queen died, his support at the court vanished and the malicious rumours were kindled again. In extravagant supplications to the King he appealed for rehabilitation by a public trial, a trial in which he assented

willingly, to the punishment of Death: (yea, eyther to be stoned to death: or to be buried quicke: or to be burned unmercifully) If by any due, true, and just meanes, the said name of *Conjuror*, or *Caller*, or *Invoker* of Divels, or damned Spirites, can be proved...⁸⁶

But his appeals are to no avail. Weak and ailing, he spends his last years with his family at Mortlake. His wife Jane has been snatched away by the plague and the visitors become fewer and less generous. Stealthily the table silver and copper vessels are sent to the pawnbroker’s shop, while his complaints about the ravages of the thieves are met with compassionate glances. With trembling hand, he notes his dreams in his diary. He is dreaming of Kelley and the Philosopher’s Stone.

In September 1607, the angel Gabriel manifests himself in his chamber for the last time. Talking as they did in the old days, Dee complains that Emperor Rudolph’s support never seems to appear, but the angel hushes him gently. “Let it go”, he says, “let it go, and

⁸³ Dee, *The Compendious Rebersall*, pp. 40-41.

⁸⁴ Dee, *The Private Diary*, p. 49-50.

⁸⁵ Darrell, *A True Narration of the Strange and Grevous Vexation by the Devil of 7. Persons in Lancashire*, p. 2. See also Dee, *The Private Diary*, pp. 57, 59.

⁸⁶ Dee, “To the King’s most excellent Majestie”, p. 47.

speake no further of it. The Emperour of all Emperours will be thy
comfort...”⁸⁷

⁸⁷ Dee, *A True & Faithful Relation*, ‘Actio Tertia’, p. 42. These last sessions were probably performed with Bartholomew Hickman as scryer, see Whitby (ed.), *John Dee’s Actions with Spirits*, I, pp. 49-54.

Introduction

Understanding early modern occultism — retrospection and reassessment

Thus, perhaps, would the tale of John Dee run if we crafted his diaries into a conventional biographical narrative, told with the slightly wondering tone we inevitably adopt when we confront the seemingly fabulous and incomprehensible. For a tale it is, despite the bulk of quotations and primary sources, a tale as subjective, selective and interpretive as any historical narrative by necessity must be. And yet it is a tale worth telling, a tale that conveys the “Otherness” of the past as few tales do.

Until a few decades ago, the very foreignness of Renaissance occultism — taken as a comprehensive term for the various sciences dealing with invisible or non-manifest forces, such as magic, alchemy, divination and astrology⁸⁸ — confined it to the margins of historiography. Confronted with beliefs and conceptions so strange and otherworldly that they seem to beg questions about rationality and common sense, historians were both unable and unwilling to treat occultism as way of understanding the world valid in its own right. Taking our own ideological framework as providing universal and natural criteria for understanding reality, historians judged occultism by modern standards of “rationality” and “science” and constructed hegemonic accounts of the past — accounts in which the sheer *difference* of the Other was either treated as a mark of inferiority, or suppressed through an act of interpretation that abstracted the aspect most familiar to us and took this as adequately representing the whole

⁸⁸ The term “occultism” is preferable to labels like “Hermetism” or “Neoplatonism”, often invoked as more or less synonymous with occultism, since it does not ground this body of beliefs in a particular philosophical tradition or set of texts. Instead it makes us susceptible to the syncretistic and heterogeneous character of these conceptions. For a discussion of this, see Copenhaver, “Natural magic, hermetism, and occultism in early modern science”.

of that culture.⁸⁹ As Tzvetan Todorov writes, the hegemonic relationship between “them” and “us” renders it difficult both to see “*difference* without its degenerating into superiority/inferiority” and “*equality* without its compelling us to accept identity”.⁹⁰

As a consequence, Renaissance occultism was thrown into the shade by its own future: either it was interpreted as a body of errors and misperceptions subsequently to be overcome, or as a world view containing the grain that would later germinate into “real science”. In both cases, occultism was subsumed under the grand narrative of the “Scientific Revolution”, which effectively excluded the meaning of occult notions — the meaning it had to “them” — from the historic account.

To understand foreign beliefs “in their own terms” requires a different approach: it demands that we acknowledge the meaningfulness of these beliefs without judging them in terms of familiarity; or, in a beautiful phrase of Gary Tomlinson’s, an ability to “always sustain the sense of Otherness in the face of meaning”.⁹¹ In this sense the historian shares a dilemma with the ethnographer who must “render the foreign familiar and preserve its very foreignness at one and the same time”, as Vincent Crapanzano writes: a feat he tries to accomplish “through a presentation that asserts the foreign and an interpretation that makes it all familiar”.⁹²

This balancing act, however, is rendered difficult by the fact that the categories and terms we use when analysing the past are in many cases products of the very historical process we try to understand. As a consequence, categories such as “occultism”, “magic” and “science” are laden with anachronistic and pejorative meanings that render

⁸⁹ A well-known example of the latter perspective is Frances Yates’ account of the “Hermetic Tradition”. By interpreting the occult interest in mathematics and the manipulation of natural forces as anticipating seventeenth century science, she attributed to these aspects meanings they did not have in their original context. As such, her account was essentially based on the rhetorical trope of *synecdoche*, in which the part is taken as representing the whole.

⁹⁰ Todorov, *The Conquest of America: The Question of the Other* (New York, 1984), p. 249, as quoted in Tomlinson, *Music in Renaissance Magic: Toward a Historiography of Others*, pp. 10-11. Tomlinson offers a valuable discussion of the concept of hegemony and its relevance to the historiography of occultism, see especially pp. 6-15.

⁹¹ Tomlinson, *Music in Renaissance Magic*, p. 23.

⁹² Crapanzano, “Hermes’ Dilemma: The Masking of Subversion in Ethnographic Description”, p. 52.

them precarious as analytic tools. A study which lucidly illustrates this is Keith Thomas' acclaimed account of magical beliefs in early modern Britain, *Religion and the Decline of Magic* (1971). Thomas' breathtaking erudition and keen eye for illustrative anecdotes evokes a vivid picture of the prevalence and scope of magical beliefs in sixteenth- and seventeenth-century England. Protective amulets, magical invocations, omens, witchcraft and astrological predictions were all accepted as normal parts of life, some of them to be shunned for moral reasons, but all of them practiced by a wide range of people and none of them dismissed as impossible by more than a handful of sceptics.

Despite its vividness, however, Thomas' account raises more questions than it answers. For all its detail, it is curiously void of exhaustive analyses of particular cases, confining itself to a "conscientious but redundant accumulation of instances and occurrences", as S. J. Tambiah put it, often taken out of context and presented as an entertaining panorama of bygone delusions.⁹³ To some extent this feature is clearly a deliberate choice of Thomas' to make the account accessible to a general audience. But it is also a consequence of his conception of the phenomenon he studies. Throughout the book, "magic" is treated as a clearly defined category of practices and beliefs that can be distinguished from — and, indeed, contrasted with — two other categories: "religion" and "science". Whereas "religion" is understood as a comprehensive and organized system of symbols, and "science" as a collection of rational procedures for the attainment of empirical knowledge, "magic" is portrayed as an incoherent hotch-potch of miscellaneous recipes for gaining personal favours and goals. As such, it can be understood as a fallacious fusion of "religion" and "science" in which symbols are taken as physically effective means to achieve practical ends.

As Hildred Geertz pointed out, the problem with this approach is that these categories took shape first when the belief in magic was in decline. As Thomas himself stressed, the line between "religion" and "magic" was impossible to draw before the Reformation, when a number of theologians emphasized the purely symbolic nature of prayer and ritual. The prime purpose of his study was indeed to show how this distinction emerged and evolved in the seventeenth century. Likewise, it was with the rise of the mechanistic philosophy that the

⁹³ Tambiah, *Magic, Science, Religion, and the Scope of Rationality*, p. 24.

belief in “occult” or invisible forces first became intellectually unacceptable and the notion of “science” as Thomas defines it took shape, in deliberate opposition to the “occult” philosophy. What Thomas took as valid categories for understanding the phenomenon of magic and its decline were, in other words, the rhetorical and polemic categories of mechanistic philosophers who opposed it, and of certain theological circles that spearheaded the Reformation. Thus Thomas took part in the very process he tried to describe, not only investing “magic” with deprecatory meanings but also evading the more central issue: as Geertz aptly put it, it is not the decline of magic that cries out for explanation, but the emergence and rise of the *label* “magic” in the sense that Thomas uses it.⁹⁴

Though Thomas deftly brushed away the critique that he applied our own culturally constructed categories to a foreign body of beliefs with the argument that he intended “to write English history, not to engage in cross-cultural analysis [*sic*]”,⁹⁵ his book was one of the first in a row of historical studies to take an anthropological stance vis-à-vis early modern magic. Evans-Pritchard’s *Witchcraft, Oracles and Magic Among the Azande* (1937), the first anthropological study to focus on the inner coherence and logic of magical beliefs, is often mentioned as an important source of inspiration. Yet Thomas’ indebtedness to Evans-Pritchard should not be overstressed, for while the aim of Evans-Pritchard’s account was to show how magical beliefs were granted a form of local rationality by being embedded in a pattern of cultural concepts, Thomas tended to read it as a psychological theory of magic more akin to Bronislaw Malinowski’s views than Evans-Pritchard’s own account warrants.⁹⁶ Throughout Thomas’ study, magic was defined primarily in functionalistic terms, as something that was practiced since it filled psychological or sociological needs which the practitioner did not himself recognize. In a world plagued by fluctuations of nature, hazards of fire, threats of disease and fear of evil spirits, magic could relieve man of the worries he faced in his daily life. As Thomas put it in the concluding paragraph,

⁹⁴ Geertz, “An Anthropology of Religion and Magic, I”, p. 76. It should be noted that Thomas in a reply to Geertz forcefully repudiates her critique: see Thomas, “An Anthropology of Religion and Magic, II”. Notwithstanding this, I have to concur with the analysis she makes.

⁹⁵ Thomas, “An Anthropology of Religion and Magic, II”, p. 94.

⁹⁶ For a discussion of this, see Geertz, “An Anthropology of Religion and Magic, I”, p. 84n17.

magic can be seen as “the employment of ineffective techniques to allay anxiety when effective ones are not available”.⁹⁷ In understanding magic as by definition non-religious, non-rational and physically non-effective, Thomas suppressed the ontological basis of magic in favour of a psychological one. Although he emphasized the importance of occult philosophy to buttress “excessive beliefs” in the powers of imagination and the magical efficacy of words and rituals, he never gave this ontological *legitimation* of magic the same weight as the psychological *need* for it.

Psychologism, in various forms and often based on early anthropological studies of “primitive” or “savage” societies, was until a few years ago the dominant model for understanding early modern occultism. In *The Occult Sciences in the Renaissance* (1972), Wayne Shumaker repeatedly referred to “primitive thought” as a mode of reasoning permeating early modern intellectual occultism, rooted in a habit of “projecting” subjective categories and human endowments onto nature. In regarding the world as a living being, scholars like Marsilio Ficino (1433-1499) and Heinrich Cornelius Agrippa (1486-1535) expressed “a primeval tendency, still operative in savage cultures and among very young children, to imagine everywhere a consciousness very like our own”.⁹⁸ Shumaker’s study, which described how these “assumptions and mental habits persisted until, in ‘advanced’ thought, they were challenged, and eventually overcome, by empirical procedures”, was an unembellished tribute to a “Scientific Revolution” brought about by “scepticism of the authorities, exact instruments for making observations, controlled conditions, and, not least important, a refusal to let wishes interfere with perception”.⁹⁹

Needless to say, the simplistic view of “science” as an empirical exposure of the world “as it is in itself” has long since crumbled under the weight of postmodernist, relativist and constructivist critiques. And yet, apart from a few notable exceptions, the study of occult philosophy has remained curiously untouched by this process, having

⁹⁷ Thomas, *Religion and the Decline of Magic*, p. 800. Again, I have to concur with Hildred Geertz that this definition is a pervasive theme in Thomas’ account, despite his later repudiation.

⁹⁸ Shumaker, *The Occult Sciences in the Renaissance*, pp. xviii, 157. See also pp. 197-198.

⁹⁹ Shumaker, *The Occult Sciences in the Renaissance*, pp. 218, 258.

aroused little interest outside the domains of a more traditional history of philosophy.¹⁰⁰ As Stuart Clark recently pointed out, “Triumphalist accounts of the victory of science over magic may no longer be credible, but in the history of the so-called occult sciences, the temptation to write qualitatively about the changes wrought by the ‘scientific revolution’ has long persisted.”¹⁰¹

And, one might add, so has the temptation to draw on anthropological studies of “primitive cultures” to understand the nature of early modern occultism. In a number of essays published in the 1980s, Brian Vickers relied on a study by Robin Horton, “African Traditional Thought and Modern Science” (1967), to draw a sharp distinction between “scientific” and “occult” modes of thought. Whereas “science” was characterized as a uniquely progressive enterprise, based on a mentality “open” to self-criticism and change, “occultism” was described as a “closed” and self-justifying system of thought, resistant to critique and alternative explanations.¹⁰² The resulting analysis was a crude but illustrative example of how the notion that “primitive ways of thought” can be contrasted with “modern” ones creates an illusory dichotomy which, in a phrase of Hildred Geertz’s, “reduces the complexities of human life to a simple negative of one’s presumed self.”¹⁰³

In Vickers’ view, the fundamental difference between the “scientific” and “occult” mentalities could be located in their respective uses of language. In the essay “Analogy versus identity: the rejection of occult symbolism, 1580-1680”, published in 1984 but still something of a standard reference when occult language views are discussed, he

¹⁰⁰ Among the exceptions one should mention Patrick Curry’s *Prophecy and Power* (1989), Pamela H. Smith’s *The Business of Alchemy* (1994), James J. Bono’s *The Word of God and the Languages of Man* (1995), and Stuart Clark’s *Thinking with Demons* (1997).

¹⁰¹ Clark, *Thinking with Demons*, p. 180.

¹⁰² Vickers, “Analogy versus identity: the rejection of occult symbolism, 1580-1680”, in *Occult and Scientific Mentalities in the Renaissance* (1984), his “Introduction” to the same volume, and “On the Function of Analogy in the Occult” (1988). Horton’s essay, which faced a massive critique from the discipline of anthropology, was originally published in *Africa* 37 (1967), pp. 50-71, 155-187, reprinted in a slightly abridged form in *Rationality*, ed. B. R. Wilson, pp. 131-171. In a later essay, entitled “Tradition and Modernity Revisited” (1982), Horton himself discarded this distinction, characterizing it as “ripe for the scrap heap”.

¹⁰³ Geertz, “An Anthropology of Religion and Magic, I”, p. 88. For a valuable critique of Vickers’ approach, see Curry, “Revisions of Science and Magic”.

introduced a sharp distinction between “scientific” and “occult” use of metaphors and analogies:

In the scientific tradition, I hold, a clear distinction is made between words and things and between literal and metaphorical language. The occult traditions does not recognize this distinction: Words are treated as if they are equivalent to things and can be substituted for them. Manipulate the one and you manipulate the other. Analogies, instead of being, as they are in the scientific tradition, explanatory devices subordinate to argument and proof, or heuristic tools to make models that can be tested, corrected, and abandoned if necessary, are, instead, modes of conceiving relationships in the universe that reify, rigidify, and ultimately come to dominate thought. One no longer uses analogies: One is used by them. They become the only way in which one can think or experience the world.¹⁰⁴

To be sure, this idealized conception of “scientific” language, so curiously innocent of recent developments in science studies, has been forcefully criticized by a number of scholars. His characterization of “occult” language, by contrast, has been left virtually unchallenged and, indeed, has been repeated approvingly over the years by a number of historians who are usually more circumspect.¹⁰⁵ Central to the “occult mode of thought”, in this view, is that analogies and metaphors are conceived of not merely as imaginary and mental connections between different entities, but as *real* connections. At its most plain this conception appears in the belief in “natural” languages, a belief virtually omnipresent in Renaissance occultism. Drawing on the biblical account of Adam’s naming of the animals and on Plato’s dialogue *Cratylus*, occultists regarded the connection between word and thing as “natural” and “real”, rather than as conventional: a word signified something, not by social agreement and custom, but by embodying the true essence or nature of the thing. From this assump-

¹⁰⁴ Vickers, “Analogy versus identity: the rejection of occult symbolism, 1580-1680”, p. 95.

¹⁰⁵ For a recent example, see Stuart Clark’s *Thinking with Demons* (1997), pp. 287-289, in which Vickers’ idealized view of “science” is noted, whereas the characterization of “occult” views of language closely and approvingly follows his account. For a less cautious appraisal of Vickers’ analysis, see Ormsby-Lennon, “Nature’s Mystick Book: Renaissance *Arcanum* into Restoration Cant” (1995).

tion it was a minor step to ascribe to words the power to act physically and magically upon the world. As Ficino wrote in his *Philebus* commentary: “A name, as Plato says in the *Cratylus*, is a certain power of the thing itself [*rei ipsius vis quaedam*], first conceived in the mind, then expressed by the voice, finally signified by letters.”¹⁰⁶ Paraphrasing Ficino virtually verbatim, Agrippa went on to claim that words carry such powers that they “change not only the hearers, but also other bodies, and things that have no life”.¹⁰⁷

In Vickers’ view, this tendency to treat “words as things and essences” — indeed, to *equate* words with things — demonstrates an inability to “recognize the distinction between tenor and vehicle”. Invoking the terminology of Ferdinand de Saussure, he claimed that “in this type of thinking the *signifiant* is confused with the *signifié*”. Whereas the scientific mentality draws a clear distinction between sign and referent, between words and things, the occult tradition tends to blur the line between them, “fusing” or “collapsing” the two elements into a single set: “In the occult and magical traditions the line is removed — or rather, it is never inserted; word and thing are not discriminated.”¹⁰⁸ Hence, the analogy between two things “collapses” into an *identity*: the name does not refer to the object, it *is* the object, and the magician does not allude to the thing he speaks of — he expresses the very thing itself. This “fusion” of sign and referent sustained the belief that by manipulating the one item it was possible to affect the other: the word could affect the thing it represents, an image of the heavenly constellations could draw powers from the stars, and a magical amulet tap the forces of the invisible world: “Analogy leads to identity and to actual connections between things.”¹⁰⁹

Vickers’ analysis is by no means original, and the conception of occult symbolism and magic as based on a “fusion” of the sign and its referent has been prevalent in historiography for more than half a century.¹¹⁰ By pressing this interpretation to its limits of generaliza-

¹⁰⁶ Ficino, *The Philebus Commentary*, pp. 138-141. See also his *Cratylus* commentary, in *Opera omnia*, especially p. 1310.

¹⁰⁷ Agrippa, *Three Books of Occult Philosophy*, I.69, p. 211.

¹⁰⁸ Vickers, “Analogy versus identity”, pp. 117, 97.

¹⁰⁹ Vickers, “Analogy versus identity”, pp. 120, 106, 123.

¹¹⁰ Vickers draws heavily on similar accounts in Kristeller, *The Philosophy of Marsilio Ficino*, especially pp. 92-97; Gombrich, “Icones Symbolicae: Philosophies of Symbolism and their Bearing on Art”; Walker, *Spiritual and Demonic Magic from Ficino to Campanella*; and Coudert, “Some theories of Natural Signification from

tion and literalness, however, his account has the virtue of bringing its superficiality and vacuity into sharp relief. On no account is it justifiable to claim that the occultist was unable to discriminate between symbol and object, mistaking the word for the thing. The belief in natural signification and the magical power of words had its basis in an ontological and cosmological scheme which posited a different relation between sign, mind and reality than our world view does. By imposing a modern, Saussurean conception of signification upon Renaissance occultism, this view merely evades the crucial issue: how the concept of signification itself was embedded in a set of notions about nature and culture which generated practices of interpretation quite different from ours, and how these practices in turn were employed to legitimate the occult outlook on reality.

As we shall see, the simple distinction between “natural” and “conventional” signification is much too crude to be of value when we try to understand the role of language in early modern occultism. Not only do we find a range of non-occultists dwelling on “natural” languages: we find that virtually every scholar whom Vickers places in the occultist camp stressed the *conventional* character of signification. Although the belief in natural signification was a central feature of Renaissance occultism, it was usually regarded as an *ideal* form of signification, attributable solely to the original Adamic tongue and the ancient languages directly derived from it. The narrative of Adam’s prelapsarian tongue and its subsequent deterioration provided grounds for a profusion of different approaches to language. How our conventional languages were to be restored to their primordial condition of natural signification, and, indeed, what it meant to say that a language signified “naturally”, were issues that occupied a range of scholars in the Renaissance, within as well as outside the boundaries of occult philosophy.

The notion that magic can be understood as a mistaken application of analogy, in which contingent associative ideas are taken for causal relations, was for a long time a dominating concept in anthropological studies of “primitive” cultures. Writing in 1871, Edward Tylor interpreted the magic beliefs of the “primitive savage” as based on a “mistaking [of] an ideal for a real connexion”, an erroneous conviction that an “association in thought must involve [a] similar con-

the Renaissance to the Seventeenth Century”.

nexion in reality”.¹¹¹ This idea, which was a central feature of James Frazer’s monumental production, remained an anthropological commonplace for almost a century, most elaborately expressed in Lucien Lévy-Bruhl’s conception of a “prelogical mentality”. In contrast to Western rationality, Lévy-Bruhl argued, “primitive” mentality is not governed by the law of causality and formal logic, but by the “law of mystical participation”, a term signifying the association of things to the point of identity and consubstantiality.¹¹²

Though Lévy-Bruhl renounced the notion of a “prelogical” mentality by the end of the 1930s, the key elements of his theory loom large — albeit couched in a different theoretical idiom — in the most notorious account of early modern occultism ever written: Foucault’s chapter on Renaissance discourse in *Les Mots et les choses* (1966). Foucault’s approach in this work was strictly structuralistic: what he wanted to uncover was an underlying structure of which scientific discourse was a “surface expression”, a single *épistémè* which functioned as the precondition for the production of all knowledge. Arguing that a fundamental shift in how knowledge was organized had occurred in the middle of the seventeenth century, Foucault tried to show how knowledge before this transition was structured by the principle of “resemblance”. As the underlying principle of discourse, however, resemblance was not merely an external relation between two discrete entities, a conception which would first arise with the emergence of a new *épistémè* in the seventeenth century. Rather, it functioned as the sign of a concealed relationship, as a mark which indicated hidden correspondences and affinities that linked all things within the universe into a coherent whole. Hence, the search for knowledge could only be conceived of as a reading of signs, an exegesis by which the inner essence of a thing was uncovered by interpreting its outer form, or by a continuous mapping of the correspondences that traversed the world.¹¹³

Foucault’s account evokes an immediate sense of recognition in anyone familiar with Renaissance occultism and its characteristic engagement in correspondences, sympathies and signatures. “*Walnuts*

¹¹¹ Tylor, *Primitive Culture*, I, p. 116.

¹¹² Lévy-Bruhl, *How Natives Think*, especially pp. 69–104. For a balanced discussion of Lévy-Bruhl’s notions, see Evans-Pritchard, *Theories of Primitive Religion*, pp. 78–99, and C. Scott Littleton’s introduction to the reprint edition of *How Natives Think* (1985).

¹¹³ Foucault, *The Order of Things*, pp. 17–45.

have an entire Signature of the *Head*’, wrote Oswald Croll (c. 1560-1609) and described how the rind of the walnut, by resembling the cranium, revealed its power to cure wounds in the skull, whereas “the Kernel hath the figure of the Brain itself; therefore it is also helpful to the Brain, and abates the force of Venoms”. To Croll, nature was a vast text of cross-referring resemblances, disclosing to the knowledgeable the inner power of every plant and animal — “by similitude [they] manifest their Interiours, concealed in the occult Silence of Nature”.¹¹⁴

In the doctrine of correspondences the crucial role of resemblance reappears as a visible mark of the invisible play of affinities, through which things echoed and duplicated one another as in an endless hall of mirrors. “[E]very Herb is a Terrene Star growing towards Heaven”, wrote Croll, “and every individual Star, is a Caelestial Herb in a Spiritual Form, in nothing differing from Herbs growing in the Earth, save only in the Matter”.¹¹⁵ In his *Philosophicall Key*, Robert Fludd (1574-1637) elegantly expounded the commonplace notion of the human body as a microcosm, minutely mirroring the world we inhabit: just as the sun vivifies the world by its beams of light, so the human heart pumps “Vitall spirits” through the arteries, directing “the liuely beames to euerÿ quarter and corner of this litle World, that by this meanes each part thereof maÿ liue”. And just as the earth is subject to nourishing showers of rain, so “Microcosmicall showers of raÿne” takes form within the body, turning into streams that “trickle downe from the mountaynes of the stomach, liuer, and spleen” and through “the stonÿ and rockÿ cauernes of the kidneyes”, eventually reaching the “salt sea of the bladder”.¹¹⁶

Even the concept of causality seems to have been structured by the principle of resemblance, which is most clearly expressed in the doctrine of sympathies and antipathies, but equally evident in the concept of magic. By imitating the heavenly spheres the magician could bring down celestial forces to the earthly realm, for, as Giambattista della Porta (1535-1615) wrote, “the very likenesse of one thing to another, is a sufficient bond to link them together”.¹¹⁷

¹¹⁴ Crollius, *Treatise of Signatures*, in *Bazilica Chymica, & Praxis Chymiatricae* [Eng. transl. 1670], p. 1, sigs. A2^v-A3.

¹¹⁵ Crollius, *Treatise of Signatures*, in *Bazilica Chymica, & Praxis Chymiatricae* [Eng. transl. 1670], sig. B.

¹¹⁶ Fludd, *A Philosophical Key*, pp. 80-81.

¹¹⁷ della Porta, *Natural Magic*, p. 15.

According to Foucault, the constructive role of resemblance in Renaissance discourse entailed a conception of language strikingly different from the one developed in the seventeenth century. The very distinction between the sign and its referent was something that would emerge first with the “representational” *épistémè* in the “Classical Age”. In the Renaissance, by contrast, resemblance was conceived of as both the form and the content of the sign, forcing the elements of the sign to fuse “into a single form”.¹¹⁸ In Foucault’s terminology, the Renaissance *épistémè* superimposed hermeneutics and semiology — that is, there existed no distinction between *interpreting* a sign and defining what *constituted* it as a sign:

To search for meaning is to bring to light a resemblance. To search for the law governing signs is to discover the things that are alike. [...] The nature of things, their coexistence, the way in which they are linked together and communicate is nothing other than their resemblance. And that resemblance is visible in the network of signs that crosses the world from one end to the other.¹¹⁹

In a discourse governed by the principle of resemblance, no strict distinction could exist between language and reality; both were systems of signification of equal ontological status. Language became “interwoven” with reality, forced “to reside in the world, among the plants, the herbs, the stones, and the animals”, and to partake “in the world-wide dissemination of similitudes and signatures”.¹²⁰ Hence, Foucault asserted, knowledge in the Renaissance “consisted in relating one form of language to another form of language; in restoring the great, unbroken plain of words and things; in making everything speak”.¹²¹

No account of Renaissance thought is so dazzling and overpowering as Foucault’s, a virtue — or, perhaps, vice — largely due to its evocative rather than argumentative style. Nor is any account so daring in its scope of generalization and schematicism, so bold in its persistence in suppressing individual differences and local variations, effectively forcing an entire era into a single governing scheme. Like all structuralistic studies, it portrays a world where cultural practices

¹¹⁸ Foucault, *The Order of Things*, p. 42.

¹¹⁹ Foucault, *The Order of Things*, p. 29.

¹²⁰ Foucault, *The Order of Things*, pp. 34-35.

¹²¹ Foucault, *The Order of Things*, p. 40.

and differences are locked within the framework of a governing system.¹²² Though Foucault would repudiate this notion a few years later, his account of Renaissance discourse was based on the belief that the production and organization of knowledge — *all* knowledge — could be ascribed to a single, encompassing *épistémè* — “In any given culture and at any given moment, there is always only one *épistémè* that defines the conditions of possibility of all knowledge...”¹²³ Yet virtually every source invoked to illustrate his analysis — Paracelsus, Croll, della Porta, Campanella, Cardano — can be placed firmly within some faction of occult philosophy, whereas humanistic and scholastic concepts are conspicuously absent from his account.¹²⁴ But, even if taken as an analysis of Renaissance occultism, Foucault’s account remains ideal-typical: it is an academic construction whose formal symmetry and sweep of abstraction is doomed to crumble when confronted with the heterogeneous amalgamation of divergent notions and practices we lump together under the label “occultism”.

Despite its undeniable originality, Foucault’s account restates many of the commonplaces in early anthropological studies of analogical thinking in non-western cultures. Analogy functions as an all-pervasive, governing principle of reasoning, generating an autonomous mode of thought in which not only the demarcations between metaphorical, symbolic and literal language are dissolved, but the very distinction between language and reality collapses. As such, Foucault’s analysis parallels Brian Vickers’ later account of the “occult mentality” remarkably closely. Yet there remains a crucial difference between Foucault’s and Vickers’ respective approaches. The aim of Foucault’s “archaeological” analysis was to uncover an underlying structure which established the conditions for how knowledge was constructed and for the forms it could take — an approach which led him to bracket out any notion of a “reality” and “truth” existing

¹²² For a well-known and influential critique of structuralistic studies overall, see Bourdieu, *Outline of a Theory of Practice*, especially pp. 22-30. For a balanced critique of Foucault’s account of Renaissance discourse in respect of this feature, see Tomlinson, *Music in Renaissance Magic*, pp. 52-58.

¹²³ Foucault, *The Order of Things*, p. 168. For his repudiation, see *The Archaeology of Knowledge*, p. 15-16.

¹²⁴ For an acid critique of Foucault for reducing Renaissance thought to the “unintelligible” writings of “marginal” writers, none of whom were “taken seriously” outside their own limited faction, see Huppert, “*Divinatio et Eruditio*: Thoughts on Foucault.”

independently of scientific discourse, and, instead, to treat these notions as constructions of the prevailing discourse. Vickers, by contrast, reverted to a form of psychologism that brought his analysis perilously close to the Victorian anthropology of Tylor and Frazer. In his account, the distinction between “occultism” and “science” ultimately boils down to the distinction between subjectivism and objectivism. Whereas the “experimental scientist” derives observations from nature and uses analogies solely as a heuristic device, the occultist imposed his own categories onto reality and linked them to a network of correspondences by means of analogies that had a persuasive rather than predictive purpose, inviting mere mental recognition or agreement instead of leading to new knowledge.¹²⁵

In recent years, however, we have seen the objectivist view of knowledge — the view that there is exactly one true and complete description “of the way the world is”, and that this world can be grasped by us objectively once we have eliminated all subjective aspects — turn virtually obsolete. Science is no longer seen as a revelatory enterprise, but as an interpretive one, a conceptual shift which has led to a proliferation of studies of how social and cultural factors inform scientific practices and concepts. As a result of this development the strict distinction between occultism and science appears increasingly untenable. Scientific language is no longer considered a literal, non-metaphorical idiom cutting reality at its joints, nor are scientific analogies regarded as purely heuristic devices. If the use of analogy and metaphor can be said to constitute a “great divide” between occultism and science, the difference lies neither in what *kinds* of analogies they employed, nor in *how* they were employed, but simply in *which* analogies were constitutive of their respective interpretive approaches.

Nor can the belief in the “objectivity” of scientific categories — on which analogy is ultimately dependent — be sustained in the face of recent developments in the cognitive sciences. Categories are not something brought to light by an undistorted view of reality or by a sudden *fiat* of rational thought. To ascribe a thing to a certain category is to say what *kind* of thing it is, but things do not come in natural kinds, nor do the categories of our mind naturally fit the kinds of things that exists in the world. Categories are something we construct;

¹²⁵ This view is most clearly stated in his essay “On the Function of Analogy in the Occult” (1988), which is an elaboration of his earlier essays.

something we make when we impose a scheme of description upon the world. As such, categorization is a practice thoroughly embedded in culture, dependent on the particular context in which it takes place and influenced by notions about the nature of reality, historical traditions, beliefs, myths and ideological choices.¹²⁶

As George Lakoff and Mark Johnson have persuasively argued on the basis of empirical research, conceptual categories should be understood neither as “objective” nor “subjective”, but as *experiential*, as something both shaped by and shaping our experiences within a particular cultural and material environment.¹²⁷ Take, for instance, Oswald Croll’s fascinating demonstration of the correspondences between a tempest and an epileptic seizure: “When the Tempest is near there is a change in the air” — likewise, the epileptic suffers from “a change of Reason when the *Epilepsie* begins to assault”; in the heavens “Clouds succeed” — likewise, the epileptic suffers from “Dimness of sight”; the winds begin to blow — the victim suffers from “inflation of the Neck and Belly”; “Fraction and Thunder” are heard in the heavens — the epileptic suffers from “Fraction of the Bladder, and Concussion of the Body”; flashes blazes in the sky — the eyes of the epileptic turn “Fiery and sparkling”; showers of rain start to fall — the epileptic starts to foam at the mouth; thunderclaps shake the earth — the epileptic is afflicted with a “Forcing of the Spirits, and tearing of the ligaments”; finally, a serene sky returns, just as the epileptic experiences a “Return of the Senses and Speech”.¹²⁸

Needless to say, Croll’s description boggles our mind. But it does so not because we are unable to see the resemblances he points out. It boggles our mind because his description has *ontological consequences* that contradict our way of conceptually structuring the world. In describing an epileptic seizure in terms of a tempest, his description implies a categorization of reality utterly different from ours. Though we are clearly able to see the similarity to which he draws attention, we lack the conceptual system which makes it possible to experience the similarity between tempests and epileptic seizures as a

¹²⁶ For a valuable survey and discussion, see Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*.

¹²⁷ Lakoff, *Women, Fire, and Dangerous Things*, *passim*, and Lakoff and Johnson, *Metaphors We Live By*, especially pp. 185-228.

¹²⁸ Crollius, *Treatise of Signatures*, in *Bazilica Chymica, & Praxis Chymiatricæ* [Eng. transl. 1670], p. 24.

meaningful description of factual reality — as a fact rather than as a groundless illusion.

What Croll's description illustrates is not that occultists abused analogy by projecting subjective categories upon nature and lumping them together into a nonsense grid of correspondences. Rather, it illustrates is that a fact is a fact only relative to a conceptual framework and that, relative to another framework, this fact might be a theoretical entity, an illusion, or a non-fact. The reason for this is that reality is incapable of presenting itself as meaningful on its own; we *make* it meaningful by applying one or another conceptual scheme to it. The meaningfulness of Croll's description of the similarity between man and world is, consequently, not something that will simply evaporate on a closer examination of the matter. Instead, our rejection of his claim *presupposes* a conceptual framework very different from what made Croll's description meaningful to him. As Hilary Putnam puts it, objects "do not exist independently of conceptual schemes. We cut up the world into objects when we introduce one or another scheme of description. [...] Even our description of our own sensations, so dear as a starting point for knowledge to generations of epistemologists, is heavily affected (as are the sensations themselves for that matter) by a host of conceptual choices".¹²⁹

What has emerged in the humanities and social sciences is a growing awareness that truth is something made rather than found; that no language can be ascribed a privileged position over another for the simple reason that there is no extra-linguistic criterion by means of which we can break out from the web of our beliefs and language to test our claims against something known without their aid. What we know is a product of this web, because it is this web that enables us to establish the known facts. As Putnam writes, the question "what objects does the world consist of?" is a question "that only makes sense to ask *within* a theory or description". Truth is not a correspondence between our mind and language and a reality external and independent from our conceptualization of it; it is "the coherence of our beliefs with each other and with our experiences *as those experiences are themselves represented in our belief system*..."¹³⁰

Though this stance vis-à-vis knowledge, elaborated by Wittgenstein, the later Foucault, Putnam, Rorty and a host of other philoso-

¹²⁹ Putnam, *Reason, Truth and History*, pp. 52, 54.

¹³⁰ Putnam, *Reason, Truth and History*, pp. 49-50.

phers, is often — and erroneously — referred to as “cultural relativism”, the notion is not relativistic in the sense that every belief is as good as every other. Instead, it asserts that there is no neutral, common ground to which, say, the occultist and scientist can repair in order to argue out their differences. If they tried, it would seem to the occultist as well as to the scientist that his opponent was begging all the crucial questions and arguing in circles, simply because there are no beliefs that can be validated from someplace outside their own conceptual system, no unwobbling pivots that determine which beliefs are “objectively” valid.¹³¹

The realization that the distinction between “truth” and “what locally counts as truth” is irrelevant or even precarious when trying to achieve a disinterested understanding of foreign beliefs was one of the factors behind the “interpretive turn” in the 1980s. If “truth” is a cultural construction, it has to be conceived of as accepted beliefs notwithstanding their apparent falsity. Understanding foreign beliefs can therefore, in a phrase of Clifford Geertz’s, no longer “be a matter of finding out whether savages could distinguish facts from fancy” but becomes a question of ascertaining how they “organize their significative world”.¹³²

Clifford Geertz exerted a tremendous influence on this reconfiguration of the humanities and social sciences, largely due to his introduction of a “semiotic” conception of culture, expounded in a number of programmatic essays in *The Interpretation of Cultures* (1973) and *Local Knowledge* (1983). As he put it in a frequently quoted passage:

Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning.¹³³

¹³¹ For a discussion of how realism *within* a framework is compatible with relativism *between* frameworks and of the implications this has for the notion of a Great Divide between different cultures, see Elkana, “Two-Tier-Thinking: Philosophical Realism and Historical Relativism”.

¹³² Geertz, *Local Knowledge*, p. 151.

¹³³ Geertz, *The Interpretation of Cultures*, p. 5.

Posed in this way, Geertz's approach to cultural analysis signalled a reaction against the various social, linguistic and psychoanalytic models which postulate an underlying "base" of which cultural expressions are a mere "reflection" or "surface expression". By assigning primacy to some underlying level — be it "the social", a linguistic "structure" or some form of "mentality" — these models ultimately aim at explaining cultural expressions causally, while simultaneously treating the "base" as the real locus of meaning, more or less divorced from, or even inaccessible to, the actors themselves. In regarding culture as "webs of significance" — or, in a more famous metaphor of his, as "an ensemble of texts" which the ethnographer "strains to read over the shoulders" of the natives¹³⁴ — Geertz's approach relocated meaning to the actors' own domain of experience, a move which made the "native's point of view" the focal point of cultural analysis. In effect, Geertz's reconceptualization of culture implied a shift in focus from the aspiration to identify causal factors behind cultural phenomena to the explication of their meanings: from explanation to interpretation.

To many historians, Geertz's approach to culture seemed to provide a fruitful tool for reinvigorating historical research. By focusing on how indigenous experiences and meanings are construed and expressed through a system of shared symbols, rather than on experience in itself in some unmediated sense of the word, Geertz's semiotic definition of culture provided the historian with a concrete means through which historical subjectivity could be accessed and grasped. As so often is the case with interdisciplinary influences, however, Geertz's tremendous impact on the humanities at large began to make itself felt at a time when his approach was already facing a growing critique from his own ranks. While emphasizing that the point of his semiotic approach to culture was to gain access to the conceptual world in which the subjects live, Geertz rendered the actual process of interpretation curiously unproblematic, portraying the symbolic systems of foreign cultures as readily accessible to the perceptive analyst — indeed, in some respects more readily accessible to the cultural analyst than to the natives themselves.¹³⁵ His interpretations were, moreover, often marked by a tendency to subsume individual differ-

¹³⁴ Geertz, *The Interpretation of Cultures*, p. 452.

¹³⁵ For a telling account, see his essay "'From the Native's Point of View': On the Nature of Anthropological Understanding", in *Local Knowledge*, pp. 55-70.

ences and divergent practices under a single encompassing cultural system.¹³⁶ As Vincent Crapanzano points out in his discussion of Geertz's famous analysis of the Balinese cockfight, the Balinese themselves appear as a homogenous "they", as "cardboard figures" bereft of individuality and personality, engaging in an equally idealized game of symbolic interaction: "Despite his phenomenological-hermeneutical pretensions, there is in fact ... no understanding of the native from the native's point of view. There is only the constructed understanding of the constructed native's constructed point of view."¹³⁷

As Richard Biernacki has recently argued, this unproblematic attitude towards the interpretive act, as well as the tendency to treat cultural systems of symbols as static and encompassing entities, is to a large extent a result of an unreflecting reliance on the metaphor of "culture as a text". This metaphor implies that "culture" is something that is both open to decipherment and something that provides an absolute and irreducible ground for interpretation. Insisting that symbolic systems function as a background condition underlying social events, behaviour and practices, Geertz treated them "as a grounding reality rather than as a fabricated element of analysis", as "a general and necessary truth rather than as a useful construction".¹³⁸ As a consequence, Geertz's influence on historiography has led historians to naturalize the concept of "sign" and "symbol", much as earlier approaches naturalized concepts like "class" or "social community", tempting historians to treat symbolic systems as "a 'real' and irreducible ground of history", a "part of the natural furniture of the human world rather than as something invented by the observer".¹³⁹

But to stress that symbolic systems are analytical constructions is not to deny the value of an interpretive approach in favour of explanatory models. Instead, this emphasis can counteract the tendency to subsume all cultural meanings under a single homogenous system and make us sensitive to the contradictory and changeable nature of cultural meanings. The underlying assumption of the Geertzian

¹³⁶ For an overview and discussion of these criticisms, see Biersack, "Local Knowledge, Local History: Geertz and Beyond".

¹³⁷ Crapanzano, "Hermes' Dilemma: The Masking of Subversion in Ethnographic Description", p. 74.

¹³⁸ Biernacki, "Method and Metaphor after the New Cultural History", p. 64.

¹³⁹ Biernacki, "Method and Metaphor after the New Cultural History", p. 63, discussing, among others, the works of Robert Darnton, Natalie Zemon Davis and Lynn Hunt.

approach — that cultural meanings are normally shared, deeply felt, fixed in content and clearly demarcated — has blocked out the question of how meanings are generated, reproduced and changed within cultural systems. As a consequence, we have, since the beginning of the 1980s, witnessed a pervasive reaction against the notion of culture as a coherent and static “text”, a reaction which has effectively recast culture as a performative term and launched the concept of *practice* into the forefront of cultural studies.

Advocates of the study of cultural practices have often taken a rhetorical stance against the notion of culture as a system, an attitude which tends to obscure the fact that the two approaches are more complementary than opposing. As William H. Sewell and Sherry Ortner, for instance, have argued, system and practice presuppose each other in the sense that a cultural practice is a meaningful exercise only when it utilizes existing symbols and meanings. But, as Sewell points out, “it is equally true that the system has no existence apart from the succession of practices that instantiate, reproduce, or — most interestingly — transform it”.¹⁴⁰ Rather than seeking to replace an older concept of culture-as-system with a newer concept of culture-as-practice, we can fruitfully study the dialectic between a (non-homogenous, non-uniform and non-static) “system” of cultural meanings and representations and the actual practices through which this “system” is expressed, preserved and changed. Or to put it in a different way: by focusing on how cultural meanings and representation are expressed and employed *in* practice, rather than studying them as schemas *for* and *of* practice, we avoid what Bourdieu calls the “realism of the structure”, that is, when we hypostatize systems of objective relations already existing outside of human action and history.¹⁴¹

The turn from system to practice in the conception of culture has been paralleled by a similar reconceptualization of related analytical concepts, and the recent emphasis on the performative aspect is equally evident in one of the key concepts in contemporary cultural studies: the concept of *discourse*. The concept of discourse, which came into prominence in the 1970s due to Foucault’s tremendous

¹⁴⁰ Sewell, “The Concept(s) of Culture”, p. 47. See also Ortner, “Theory in Anthropology Since the Sixties”, pp. 144-157.

¹⁴¹ Bourdieu, *Outline of a Theory of Practice*, p. 72.

influence on the social sciences, has become indispensable to the conceptualization of knowledge as a cultural construction. Taken in its general sense — as a set of concepts and ordered procedures for the production of knowledge which provides a framework within which it is possible to treat objects as objects of knowledge — the concept of discourse represents a clear break with the objectivist view of knowledge. Rather than seeing knowledge as a representation of some pre-interpreted reality, discourse theory highlights the constitutive role of the means by which knowledge is attained. To treat an object as an object of knowledge means to subsume it under some conceptual scheme and to make it subject to some interpretive procedure, both of which are constitutive rather than reflective of the reality they claim to map. Consequently, the articulation of a form of knowledge cannot be separated from its objects of study; both are products of a specific discourse which provides a conceptual framework for how to interpret the world and the procedures for how the “facts” are to be established.

In its post-structuralistic form, however, the concept of discourse has none of the deterministic implications it had in the works of the early Foucault. Discourses do not so much *determine* the forms and procedures of knowledge as they provide a framework within which certain approaches to knowledge become meaningful; they *motivate* certain interpretive strategies, but do not causally *predict* them. Nor does post-structuralistic discourse theory pose a distinction between “practices” and “discourse”. As Steve Woolgar reminds us, discourse is not “about” the praxis of science — the actual words and talk about knowledge — but “denotes a whole concatenation of activities, events, circumstances and objects which together make up a particular world-view”.¹⁴² As such, discourses can be seen as a particular genre of cultural practices, grounded in what Stanley Fish calls “interpretive communities” of interacting and conflicting actors, rather than in some underlying, transhistorical structure or *épistémè*.¹⁴³ As a consequence, the concept of discourse has been reconceptualized in recent decades in terms that parallel the transformation of cultural theory. Rather than forming autonomous and static wholes, discourses should be construed as loosely integrated conglomerates of

¹⁴² Woolgar, “On the Alleged Distinction Between Discourse and Praxis”, p. 312.

¹⁴³ I am borrowing the term “interpretive community” from Fish’s essay “What makes an Interpretation Acceptable”.

constantly changing — and contestatory — discursive practices. As Trevor J. Barnes and James S. Duncan aptly formulate it:

discourses are practices of signification, thereby providing a framework for understanding the world. As such discourses are both enabling as well as constraining: they determine answers to questions, as well as the questions that can be asked. More generally, a discourse constitutes the limits within which ideas and practices are considered to be natural; that is, they set the limits to what questions are considered relevant or even intelligible. These limits are by no means fixed, however. This is because discourses are not unified, but are subject to negotiation, challenge and transformation. For power relations within a social formation are communicated, and sometimes resisted, precisely through the medium of particular discourses.¹⁴⁴

By defining discourses in a deliberately vague terminology, as “frameworks” consisting of particular practices of signification, one avoids the temptation to reduce the construction of knowledge to explicit and clearly definable rules, procedures and concepts. As cultural constructs, scientific concepts and practices are informed by a range of implicit notions, ideological choices and inherited conceptions. Yehuda Elkana has used the expression “Images of Knowledge” to describe the various implicit criteria and opinions we learn and internalize when living in one or another scientific community — opinions and criteria which determine “what is beautiful, interesting, feasible, frontiers-of-knowledge, convincing, broad or narrow, worthwhile, in good taste, thematically on the right track, too risky, premature, repetitive, and so on...” As Elkana points out, these are questions which the body of knowledge in itself does not give us the means to judge, but which nonetheless are the very terms in which scientific problems are chosen and decisions couched.¹⁴⁵

One way in which discourses are shaped, changed and legitimized is through metaphors. If our experiential reality is by necessity a world under a certain description, a world experienced through one or an-

¹⁴⁴ Barnes and Duncan (eds.), *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*, p. 8.

¹⁴⁵ Elkana, “Two-Tier-Thinking: Philosophical Realism and Historical Relativism”, p. 315.

other conceptual framework, then the “facts” that constitute the basis of a scientific theory are themselves linguistic interpretations of this reality. As a consequence, metaphors and analogies can no longer be seen as mere heuristic devices that can be tested, corrected, and abandoned if necessary. Instead, recent studies have directed attention to how linguistic tropes can function as constitutive of scientific knowledge: how metaphors and analogies set the frames for how scientific problems are chosen and articulated, how they motivate certain interpretive approaches and, to a varying extent, construct the very “facts” used to bolster the theoretical model.¹⁴⁶

A study which brilliantly illustrates this, though it deals with a subject with no relation to Renaissance occultism, is Nancy Leys Stepan’s essay “Race and Gender: The Role of Analogy in Science” (1986). In this essay, Stepan shows how scientific theories of human variation in the nineteenth century were informed and shaped by a set of analogies which linked gender to race. By regarding racial differences as analogous to sexual and gender differences, scientists “could use racial difference to explain gender difference, and vice versa”:

Thus it was claimed that women’s low brain weight and deficient brain structures were analogous to those of lower races, and their inferior intellectualities explained on this basis. Woman, it was observed, shared with Negroes a narrow, childlike, and delicate skull, so different from the more robust and rounded heads characteristic of males of “superior” races. Similarly, women of higher races tended to have slightly protruding jaws, analogous to, if not exaggerated as, the apelike, jutting jaws of lower races.¹⁴⁷

Though Stepan’s essay focuses on what is often termed a “pseudo-science”, it serves as an illustrative example of how analogies can construct the categories used to frame and test the theoretical hypothesis — and hence the very “facts” underlying and confirming it. As Stepan remarks:

Human variation and difference were not experienced “as they really are, out there in nature,” but by and through a

¹⁴⁶ For a valuable overview and discussion, see Bono, “Science, Discourse, and Literature: The Role/Rule of Metaphor in Science”.

¹⁴⁷ Stepan, “Race and Gender: The Role of Analogy in Science”, p. 263.

metaphorical system that structured the experience and understanding of difference and that in essence created the objects of difference. The metaphorical system provided the “lenses” through which people experienced and “saw” the differences between classes, races, and sexes...¹⁴⁸

In analysing the workings of this metaphorical system, Stepan invokes Max Black’s now classic “interaction theory of metaphor”.¹⁴⁹ According to this theory, a metaphor is not merely a linguistic embellishment which obliquely expresses a simile or analogy between two different things. Instead, a metaphor brings two whole systems of associated implications into cognitive and emotional relation with each other, implying that the meanings of two subjects are a result of their cognitive *interaction*. By metaphorically associating two different subjects, their respective complexes of implications are brought to bear upon each other, so that the two subjects conceptually define each other. By functioning in this way, metaphors and analogies introduce conceptual changes in both of the associated subjects, with the consequence that a metaphorical association cannot be substituted by a literal statement without loss of cognitive content or meaning. As Black puts it, the “presence of the primary subject incites the hearer to select some of the secondary subject’s properties”. This “invites him to construct a parallel implication-complex that can fit the primary subject”, which “reciprocally induces parallel changes in the secondary subject”.¹⁵⁰

In the case of nineteenth century racial sciences, the metaphoric association of women and black people produced a redescription of the two subjects which could serve as an explanation since it forced the reader to understand one aspect of reality in terms of another. This conceptual interaction also affected the experiential domain by leading scientists to “see” points of similarity that previously had gone unnoticed. In other words, the analogy *created* empirical “facts” by allowing scientists to see new connections, pay attention to previously unnoticed details and emphasize hitherto unimportant experiences — “facts” that thereby confirmed the validity of the analogy. Conversely, the metaphorical association also *suppressed* information by hindering

¹⁴⁸ Stepan, “Race and Gender: The Role of Analogy in Science”, p. 265.

¹⁴⁹ Black, *Models and Metaphors*, pp. 38-47, and further elaborated in Black, “More about metaphor”.

¹⁵⁰ Black, “More about metaphor”, p. 28.

them from drawing attention to features that did not fit the similarity implied by the metaphor.¹⁵¹

Metaphors and analogies therefore have an important role in the production of scientific knowledge: to some extent they construct the reality they are presumed to map by producing facts that confirm the similarity they posit and by suppressing data that contradict it. By selecting, emphasizing, suppressing and organizing features of reality, linguistic tropes afford new ways of perceiving the world, and since they, as Terence Hawkes has pointed out, “retrench or corroborate as much as they expand our vision”, they are in a powerful way normative and consensus-building.¹⁵²

With the benefit of hindsight, it is not hard to see that the metaphoric system that shaped the interpretive practices of nineteenth century racial sciences was ultimately culturally and socially grounded. The notion that race, gender and class were linked by common marks of “inferiority” rested on long-standing, culturally endorsed values and metaphors which were reappropriated for scientific purposes. But in elevating “hitherto unconsciously held analogies into self-conscious theory”, racial scientists also extended the meanings attached to them by developing new vocabularies and technologies, thereby couching the analogies in a scientific idiom which disguised their metaphorical nature.¹⁵³

To claim that nineteenth century racial sciences can in this respect be differentiated from what we would term “proper sciences” is to revert to a positivistic view of how science works. What a scientific theory can state “depends on the classificatory resources already present in the language”, as Michael Arbib and Mary Hesse recently phrased it; “and any observation language is theory laden with that implicit classification”. To presume that the accuracy of analogical and classificatory assumptions can be tested against the world “as it is in itself”, is, therefore, “to suppose either that we have a non-theory-laden observation language in which to make these neutral statements, or that we have an ideal scientific theory that explicitly states the true classification of the world”.¹⁵⁴

¹⁵¹ Stepan, “Race and Gender”, p. 271. Cf. Black, *Models and Metaphors*, pp. 41-42

¹⁵² Hawkes, *Metaphor* (London: Methuen, 1972), p. 88, as quoted in Stepan, “Race and Gender”, p. 274.

¹⁵³ Stepan, “Race and Gender”, p. 266.

¹⁵⁴ Arbib and Hesse, *The Construction of Reality*, pp. 158-159.

Arguing from a philosophical perspective, Arbib and Hesse arrive at a view of the role of metaphors in scientific discourse strikingly similar to the one developed in the light of historical and sociological studies of scientific practices. Rejecting the literalist view of scientific language as untenable, they view all language, including scientific, as essentially tropological and as “embodying the constructions and classifications of a culture”. From this position they persuasively argue that metaphors have a constitutive role in the construction of scientific knowledge: “Scientific revolutions are, in fact, metaphoric revolutions, and theoretical explanation should be seen as metaphoric redescription of the domain of phenomena”.¹⁵⁵

In recent years we have seen a proliferation of studies focusing on the constitutive role of metaphors in various discourses. These studies range from how war can be legitimized and rationalized by couching its harsh reality in a metaphoric language of politics and business, and how problems in social policy are posed and framed by certain metaphors which also generate seemingly “natural” solutions to these problems, to how entire disciplines such as geography can be critically reassessed if we pay attention to the tropes informing their interpretive approaches.¹⁵⁶ As many of these studies demonstrate, metaphors have both a generative and a transformative effect on discursive practices by functioning as mediums of meaning between different discourses. As, for instance, Stepan’s study of nineteenth century racial sciences shows, a complex set of values and meanings stemming from cultural, social, moral and ideological discourses can be transferred to, and brought to bear on, a scientific discourse precisely through the medium of culturally significant metaphors. Linguistic tropes are therefore instrumental to scientific change, since they are one of the primary means through which different discourses intersect and interfere with each other.

This intersection of different discourses ensures that all scientific knowledge is culturally and socially situated. As James J. Bono writes,

¹⁵⁵ Arbib and Hesse, *The Construction of Reality*, especially the chapter “Language, metaphor, and a new epistemology”, pp. 147-170. The quotes are from pp. 147 and 156.

¹⁵⁶ These examples refer to Lakoff, “Metaphor and War: The Metaphor System Used to Justify War in the Gulf”; Schön, “Generative metaphor: a perspective on problem-setting in social policy”; and the essays in Barnes and Duncan (eds.), *Writing Worlds: Discourse, Text and Metaphor in the Representation of Landscape*.

metaphors “ground complex scientific texts and discourses in other social, political, religious, or ‘cultural’ texts and discourses”, thereby rendering the autonomy of scientific discourse impossible.¹⁵⁷ As a consequence, scientific discourses are also open to individual interpretation. As Bono argues, metaphoric systems often bring together discourses that are contestatory in character, a feature which allows individual scientists to select, highlight and suppress certain tropes and interpretive practices according to individual, social and ideological preferences. By focusing on how metaphors inform interpretive practices, one can therefore contest the tendency to see individual texts and authors as merely exemplary of some larger, homogenous discourse, and, instead, appreciate the “hybrid” character of all discourses — that all discourses comprise divergent, competing and contradictory metaphors and conceptual frameworks.¹⁵⁸

Bono’s work along this line has contributed largely and fruitfully to the present study. In *The Word of God and the Languages of Man: Interpreting Nature in Early Modern Science and Medicine* (1995), he focuses on a group of interrelated metaphors that had a decisive role in shaping the interpretive practices of early modern science. Most important among these were the metaphor of God’s “Word”, referring to both the Scripture and to the divine principles of creation, and the metaphor of the “Book of Nature”, referring to the natural world as a material expression of God’s Word. These tropes were significant not only in that they situated natural philosophy within a theological and metaphysical context, but also in that they fostered interpretive practices in the natural sciences that were closely connected to textual interpretation. Though early modern scientists’ preoccupation with linguistic practices such as textual exegesis, commentary, etymology and allegory has often been taken simply as a symptom of their inability to break the spell of ancient authorities, it was grounded in a metaphorical system that linked the interpretation of nature — the “reading” of the Book of Nature — to scriptural exegesis as well as language studies in general.

¹⁵⁷ Bono, “Science, Discourse, and Literature: The Role/Rule of Metaphor in Science”, p. 61.

¹⁵⁸ Bono, “Science, Discourse, and Literature: The Role/Rule of Metaphor in Science”, pp. 77-78.

At the hub of this metaphorical system lay the conception of the divine Word, the Greek *Logos*, as the absolute, transcendental Truth which every true Christian strove to comprehend. Manifested and “expressed” in symbolic form in nature as well as Scripture, the Word was accessible to man through both scriptural exegesis and natural philosophy, which, in effect, served as complementary ways to knowledge, ultimately aimed at uncovering the very same eternal truth. Much of Bono’s study is devoted to showing how the metaphor of God’s Word functioned as a medium of meaning between Scripture and nature, making the interpretation of them mutually dependent upon each other. As such it fostered a wide array of practices for interpreting nature informed by exegetical techniques, practices which Bono, using a generic term, calls techniques of “symbolic exegesis”. This term is appropriate in that it captures the explicitly interpretive character of this approach to nature: to “read” the Book of Nature was to uncover the underlying “meaning” — the Word — of which every natural phenomenon was a divinely instituted “sign”.

Within this group of discursive practices, however, biblical exegesis was by no means the only form of linguistic practice that served as a source of natural knowledge. Instead, language studies as a whole figure prominently as a means to decipher the natural world. This feature was buttressed by the various theories that described human language as signifying “naturally” by in some sense “mirroring” or “imitating” nature. But Bono’s approach is original in that he emphasizes how these theories were simultaneously grounded and opened to individual interpretation by being embedded in various “cultural narratives”. As we have seen in the prologue, Dee’s attempt to gain knowledge of the natural world by recovering the original language of mankind had its basis in the biblical narrative of Adam’s naming of the animals, the Fall and the confusion of tongues at the tower of Babel. The biblical Genesis provided the necessary link between language and the Word that made it possible to gain access to the laws of nature through the study of language. Depending on how this complex and ambiguous narrative was construed, however, individual authors could attribute to language different roles in the interpretation of nature, and develop different interpretive strategies for unlocking both language and nature to human comprehension.

Narrativity is a concept that has loomed large in the historiography of recent years. In the wake of the “interpretive turn”, many historians have fruitfully turned to different forms of historical storytelling to find untouched material to analyse; popular fictions, folk tales, stage dramas, historical writing and certain forms of journalism have been invoked as “cultural texts” embodying patterns of cultural meaning.¹⁵⁹ But the interest in narrativity has also been fuelled by a more pressing concern. In the 1970s Hayden White provoked a storm in history departments around the world by drawing attention to how historical “facts” to a great extent are constructed by the very narrative form in which they are presented. Far from being a merely reflective process, in which given facts are arranged into a readable account according to some inner logic or meaning which they somehow possess in themselves, historical writing now emerged as a constitutive process. By crafting singular facts and events into a narrative, the historian invests these singular facts and events with a meaning and significance that originate in the chosen narrative form, rather than in the facts themselves. Put in other terms, the content of our historical accounts — what they say about the past — is not merely expressed by their narrative form, but to a considerable extent created by it.¹⁶⁰

White’s challenging of the “naive realism” of historical narration has had a salutary effect on historical research by forcing us to reassess some of our most deep-rooted and cherished accounts of the past. Grand narratives like that of the “Scientific Revolution” as a heroic quest for Truth, expelling errors and superstitions and laying open nature to the unbiased gaze of the empirical scientist, have to an increasing extent been questioned as constructions rooted in contemporary needs and values. Seen from this perspective, the notion of the “Scientific Revolution” can be viewed as one of most powerful cultural narratives of the contemporary Western world, a view of the past which has been essential in order to define and legitimize a particular conception of modern science and its position in history.¹⁶¹

¹⁵⁹ For an overview and discussion, see Maza, “Stories in History: Cultural Narratives in Recent Works in European History”.

¹⁶⁰ The classic work is White’s *Metahistory*, published in 1973. For a valuable collection of essays on the theme, see also his *The Content of the Form: Narrative Discourse and Historical Representation*.

¹⁶¹ For a collection of essays discussing the current state of research on the “Scientific Revolution” and making some important advances towards its reconceptualization, see the special issue of *Configurations*, vol. 6, no. 2, 1998, entitled “The Scientific

Cultural narratives in this latter sense of the term, taken not merely as more or less fictitious “stories” that *reflect* cultural values and meanings, but as modes of representation that *create* and *transform* meanings, provide an important tool to understand the generation, reproduction and change of culture. By endowing events, experiences and cultural representations with significance, narratives function as a medium through which existing symbols can be both utilized and transformed. As Victoria E. Bonnell and Lynn Hunt recently formulated it,

narrative provides a link between culture as system and culture as practice. If culture is more than a predetermined representation of a prior social reality, then it must depend on a continuing process of deconstruction and reconstruction of public and private narratives. Narrative is an arena in which meaning takes form, in which individuals connect to the public and social world, and in which change is therefore possible.¹⁶²

Serving as a locus for the production of meaning, narratives have an important function in the construction of knowledge and form a central part of scientific discourses. An example is provided by Margaret R. Somers’ studies of how narratives serve to legitimize theories in the social sciences by situating them in what she calls “knowledge cultures”. Taking Anglo-American citizenship theory as a case study, Somers demonstrates how the explanatory power of this theory to a great extent derives from the narrative structure ascribed to the historical development of Anglo-American citizenship. By couching this development as a story of “how popular sovereignty triumphed over coercive absolutist states to ensure individual liberties”, certain concepts and categories are “naturalized”: that is, they are given the appearance of being parts of social reality rather than analytical constructions, and are therefore ascribed a privileged epistemological status. As Somers writes, the narrative “takes on the mantle of epistemology and endows the information it conveys with the stature of knowledge, fact, and truth”. Hence, “the success or failure of truth claims embedded in narratives depends less on empiri-

Revolution as Narrative”.

¹⁶² Bonnell and Hunt (eds.), *Beyond the Cultural Turn*, p. 17.

cal verification and more on the logic and rhetorical persuasiveness of the narrative".¹⁶³

Somers' study of how scientific theories and concepts are situated in narrative frameworks which define their meaning and lend them credence as explanatory tools serves as an example of how the focus on narrativity can help us understand the construction of knowledge as a cultural practice. In his study of Renaissance interpretations of nature, James J. Bono adopts a similar approach. By focusing on how Renaissance language theories were embedded in cultural narratives, he avoids treating the meaning of these theories as stable, and hence as determinative of certain interpretive approaches. Instead, he shows how the meaning of linguistic theories was dependent on how the narratives that framed them were construed. Since these narratives were ultimately concerned with mankind's fall from grace and our coming redemption through the Word, they were extremely sensitive to social, religious and ideological biases, and therefore subject to constant reinterpretations in the face of the profound religious, political and social transformations of the period.

Renaissance cultural narratives like that of Adam's naming of the animals and his subsequent Fall were thus essential in defining interpretive approaches to nature. Not only did they integrate human language in the theological and metaphysical framework of the *logos* doctrine, thereby making it possible for the metaphor of God's Word to function as a medium of meaning between nature and language; they also provided grounds for a continuous reinterpretation of the relationship between language and nature, and were therefore decisive for how the metaphor of the Word could be employed and deployed in specific discursive practices.

In tracing this process of continuous reinterpretation over roughly a century — from Ficino, Fernel, Reuchlin, and Paracelsus, via Bacon and Galileo, to Descartes and Mersenne — Bono shows how the metaphors of God's Word and the Book of Nature remained current well into the seventeenth century. Far from representing a break with the interpretive approach to nature, the "Scientific Revo-

¹⁶³ Somers, "The Privatization of Citizenship: How to Unthink a Knowledge Culture", pp. 136, 129. For a fuller discussion of this approach and the concept of "knowledge cultures", see her essay "Where is Sociology after the Historic Turn? Knowledge Cultures, Narrativity, and Historical Epistemologies".

lution” entailed a reconfiguration of the metaphorical associations between language, nature and the Word which divorced the interpretation of nature from the exegetical and textual practices of “symbolic exegesis”.

However, though my indebtedness to Bono’s learned and theoretically acute account is considerable, the present study takes a different turn. Rather than being a comparative study focused on scientific change and transformation, it is an attempt to show how the practices of “symbolic exegesis” could function within the works of a single scholar. As we shall see, Dee’s interest in language as a source of natural knowledge was not confined to the relatively late angelic conversations, but seems to have run like an unbroken thread throughout his whole career. At its most conspicuous it appears in his text *Monas hieroglyphica* (1564), the work on which this study is primarily focused. In this text, the metaphors of God’s Word and the Book of Nature had a vital role as mediums of meaning between a range of different disciplines and discourses, making it possible for Dee to forge tight bonds between the notion of “natural” languages, kabbalah, number symbolism, hieroglyphics, mysticism, magic, alchemy, the doctrine of signatures and a host of other notions.

By focusing on how various linguistic tropes and cultural narratives tied these divergent disciplines and conceptual frameworks into a whole, we can study how they could function as elements within a scientific discourse, without necessarily forming a coherent philosophical “system”. This perspective can also make us aware both of the originality of Dee’s work, and of the heterogeneous character of Renaissance occultism as a whole. Though much of his work was based on commonplace notions, the result was a synthesis without precedent in Renaissance thought.

John Dee is, in other words, not Renaissance occultism in a nutshell, and if he can be said to be representative of occultism, he is so, paradoxically, by virtue of his *atypicality*. Nor, for that matter, is the occult side of Dee’s work necessarily the one that best reflects his world and career as a whole. Though this study tends to emphasize his occult notions at the expense of other, equally important aspects, we should not forget that his natural philosophy was not occult through and through. In the hitherto fullest study of Dee’s natural philosophy, *John Dee’s Natural Philosophy: Between Science and Reli-*

gion (1988), Nicholas H. Clulee has counterpoised the earlier and much too simplistic view of Dee as a “Hermetic magus” by drawing attention to his dependence on Aristotelian and medieval philosophy.¹⁶⁴ Nor should we forget that Dee’s role in Elizabethan society and culture was not confined to that of the natural philosopher. As William H. Sherman has recently shown in *John Dee: The Politics of Reading and Writing in the English Renaissance* (1995), Dee can also be studied as a humanist scholar, a political thinker and royal advisor. These different aspects were not isolated facets of a single person’s extensive interests, but in many cases intimately related to each other — though how they were so is beyond the scope of this book.

Instead, this study focuses rather narrowly on Dee’s views on language as a means to gain knowledge of both divinity and nature. The first part of this study is an attempt to situate Dee in the broad context of early modern symbolic exegesis. A brief introductory discussion of Dee’s text *Monas hieroglyphica* is followed by a general account of how Christian historiography and metaphysics forged links between human language and the divine Word, thereby making it possible to fathom the laws of nature through the study of language. Though the biblical account of Adam’s naming of the animals, the Fall and the confusion of tongues was essential to legitimize these notions, this narrative was often coupled with the myth of a “perennial philosophy”: that is, the belief that the ancient sages of biblical times had been in possession of a consummate knowledge, granted by God and handed down to their descendants, from whom it had since scattered and been adulterated.

This belief not only laid the foundation for a scientific culture that was decidedly “bookish” in character, centred on ancient texts, languages and their interpretation. It also fostered a syncretistic approach to textual interpretation, an approach which as far as possible

¹⁶⁴ See also Clulee’s numerous articles listed in the bibliography. It should be noted, however, that Clulee’s aspiration to downplay the influence of “Hermetic” and Neoplatonic sources on Dee sometimes goes to extremes. As we shall see, there is reason to believe that Dee found these sources more important than he acknowledges, especially in the context of Dee’s views on mysticism and magic. A few weeks before finishing this study, I was kindly sent the manuscript of György E. Szónyi’s forthcoming book *Magical Exaltation through Powerful Signs: The Ideology and Iconography of John Dee*, which tries to strike a balance between Clulee’s views and the earlier “Yatesian” interpretation. See also his numerous articles listed in the bibliography.

strove to harmonize and reconcile divergent philosophical accounts and concepts. As Charles Schmitt pointed out in a classic essay on Agostino Steuco's philosophy, the belief in a *philosophia perennis* pre-empts the concept of "progress" (in the form that permeates modern science and philosophy) of meaning. Instead, it lays the emphasis on both the continuity and unity of knowledge. Since all knowledge was believed to stem from one and the same source, conflicting accounts could be interpreted as reconcilable in meaning, if not in terminology.¹⁶⁵ A succinct example is Giovanni Pico della Mirandola's (1463-1494) famous statement in the *Conclusiones* that there was nothing that Aristotle and Plato did not agree on "in meaning and substance [*in sensu et re*], although in their words they seem to disagree".¹⁶⁶ Likewise, when discussing the occult powers of things, Agrippa remarked that Plato "attributes these virtues to Ideas", whereas Avicenna "reduceth these kind of operations to intelligences, Hermes to the stars, [and] Albertus to the specifical forms of things". But, Agrippa argued, "although these authors seem to thwart one the other, yet none of them, if they be rightly understood, goes beside the truth: since all their sayings are the same in effect in most things".¹⁶⁷ To both Pico and Agrippa this reconciliation of differing accounts was legitimized by a cultural narrative which traced all knowledge to a common source, which these textual accounts more or less accurately reflected.

By focusing on how theories of language and nature were framed by cultural narratives, we can avoid using historiographic labels like "Aristotelianism" and "Platonism" as monolithic and mutually exclusive categories. Instead, it becomes possible to understand how different conceptual frameworks could intersect and fuse, fostering discourses which not only allowed individual scholars to cross the boundaries of specific philosophical schools, but in which natural philosophy was situated in much larger frameworks, comprising such fields as linguistics, metaphysics, theology, and eschatology. Within such discourses, cultural narratives of an ancient wisdom had a vital role in that they implicated these disciplines in a common "system" of mean-

¹⁶⁵ Schmitt, "Perennial Philosophy: From Agostino Steuco to Leibniz".

¹⁶⁶ Pico della Mirandola, *Conclusiones*, 'Conclusiones paradoxe numero XVII secundum propriam opinionem', no. 1, p. 54: "Nullum est quesitum naturale aut divinum, in quo Aristoteles et Plato sensu et re non consentiant, quamvis verbis dissentire videantur."

¹⁶⁷ Agrippa, *Three Books on Occult Philosophy*, I.13, p. 39.

ing, thereby affording metaphoric associations a possibility to function as mediums of meaning between them.

This approach also implies a shift in focus from the origin of conceptions to their meaning in specific contexts. Though intellectual history has been profusely influenced by the recent “interpretive turn” in the cultural sciences, it is to a large extent still focused on mapping out the intellectual horizons of certain periods or individuals with reference to more or less encompassing “traditions of thought” (such as, for example, “Hermeticism”, “Aristotelianism” or “Neoplatonism”). Such historiographic categories, however, also tend to suppress contextual meanings by being intimately linked to the idea of historiography as a search for origins. When assigning a set of conceptions to a particular “tradition”, we classify them according to a scheme that reflects the provenance of ideas, rather than their meaning in local contexts.

Though the propensity for sweeping “traditions of thought” has abated in recent years, the view of historiography as a search for origins remain prevalent. In his study of Dee’s natural philosophy, Nicholas H. Clulee commendably nuances the Yatesian characterization of Dee as a “Hermetic magus” by stressing Dee’s reliance on medieval sources like al-Kindi and Roger Bacon. Simultaneously, however, he also tends to downplay the syncretistic character of Dee’s views — a feature evident even in his earliest printed work, the *Propaedeumata aphoristica* (1558) — by over-emphasizing the origin of these elements at the expense of their meaning. Evading the question of how these medieval notions gained new meanings by interacting and merging with other elements, Clulee often seems to treat them as resistant to context and thus as retaining much of their “original” meaning when situated in a new framework.

An illustrative example of how the propensity for defining philosophical “traditions” with reference to their origin might avert attention from the actual meaning of these notions is provided by the Renaissance view of “natural” languages. In the first part of this study I briefly discuss how the notion of a “universal grammar”, which had an important role in Dee’s philosophy, renders the perpetual dichotomy between “Platonic” and “Aristotelian” language views untenable as analytic tool. Though Renaissance scholars frequently invoked Plato’s dialogue *Cratylus* to support the notion of language as signifying “naturally”, they did not necessarily — as historians tend to do —

regard this view as irreconcilable with Aristotle's notion of language as "conventional". In the various theories that posited the existence of an underlying grammar common to all languages, the distinction occasionally broke down completely, making it possible to conceptualize language as simultaneously "natural" and "conventional", as both "imitating" reality and founded on social agreement and customs.

In Dee's works, the notion of a universal grammar was ultimately dependent on his conception of mathematics as both reflecting the creative principles of God, the *verbum Dei*, and being innate in the human mind. As a consequence, his view of mathematics was also intimately tied to the Christian conception of the "inner word", the image of God's Word in the human soul. The concept of the inner word, or *verbum cordis*, had a fundamental role in Christian doctrine and constituted the philosophical basis on which the human soul could be conceptualized as an *imago Dei*. As such, it was closely associated with the Christian notion of man's coming "reformation", that is, when the image of God in our soul, tainted by Adam's Fall, would be restored to its prelapsarian perfection. Man's reformation was, in effect, synonymous with his deification, implying a return to that original state when he had been the perfect "image and similitude of God".

The quest for reformation is a recurrent theme in early modern occultism and constitutes a motif that binds together many of Dee's seemingly divergent interests.¹⁶⁸ As we shall see in the second part of this study, Dee's conception of the soul's deification was intimately linked to his engagement in symbolic exegesis. Although the idea of the soul's coming restoration remained rooted in orthodox Christian doctrine, the Renaissance revival of pagan, Platonic and Jewish thought provided scope for more radical interpretations of this conception. These influences incited the belief that deification could be

¹⁶⁸ A number of more or less synonymous terms were used in early modern occultism to describe man's deification. In addition to *reformatio* and *deificatio*, terms like *exaltatio*, *elevatus*, *ascensus* and *exultatio* were frequently used to designate man's ascent towards and union with God. Though György E. Szónyi argues persuasively in his forthcoming book *Magical Exaltation through Powerful Signs* that the term *exaltatio* pertinently captures the range of related meanings of this conception, I will hold on to "reformation", both to lay emphasis on the orthodox background which was essential to legitimize these notions, and to stress its dependence on the narrative of Adam's prelapsarian wisdom and subsequent Fall.

attained by means of contemplative techniques. By focusing the mind on symbolic representations of divine principles of creation, one could raise the soul towards a complete, intuitive comprehension of God's Word.

In his earliest attempt to conceive a language which made it possible to fathom the divine Word — the *Monas hieroglyphica* of 1564 — Dee relied on a variety of traditions which viewed symbolism as a means to attain a mystic ascent of the soul. This work provides an illustrative example of how such traditions as hieroglyphics, kabbalah and Pythagorean number symbolism could be conflated and accommodated to a Christian framework by being embedded in the myth of a perennial philosophy. By viewing these philosophical traditions as differing expressions of a once unified ancient wisdom, Dee could treat them as reconcilable in meaning and hence exploit their metaphoric associations in order to ground them in the divine Word.

Dee's views on mysticism were closely related to his notions of magic. In the third part of this study, we shall see how Dee's conceptions — and practice — of magic were dependent on his belief in a perennial philosophy which effectively blurred the distinction between different philosophical traditions. Though the most salient feature of Dee's angelic conversations in the 1580s is his dependence on medieval traditions of ritual magic, it is plausible that he viewed these ritual practices as corroborated by the pagan, Neoplatonic and Jewish sources made accessible in the Renaissance. The appropriation of these sources to a Christian framework also tended to break down the distinction between magic and mysticism, fostering a view of mysticism and magic as two complementary and mutually dependent phenomena. A lucid example of this view can be found in the classic Neoplatonic treatise on theurgy, the *De mysteriis aegyptiorum* of Iamblichus. Dee's marginalia in this work strongly suggest that he viewed these Neoplatonic notions as agreeing with his own conceptions of magic. Iamblichus' account of the magical power of divine names also gives occasion to a more general discussion of the Renaissance belief in the magical power of words. This belief was not grounded in a "Platonic" conception of "natural" signification, but in man's status as an *imago Dei*, bearing a reflection of the divine Word within his soul. This notion made it possible to conceptualize human language metaphorically in relation to the creative Word of God, and thereby to conceive of it as a vehicle of magical powers.

The study concludes with a discussion of the eschatological context of Dee's philosophical enterprises. This theme has recently been analysed in much greater detail in Deborah Harkness' *John Dee's Conversations with Angels: Cabala, Alchemy, and the End of Nature* (1999). The purpose of this brief discussion is merely to suggest that some of the religious and apocalyptic notions that came into prominence in Dee's angelic conversations were implicit in his earlier works, a feature that would indicate a greater coherence between his different works than is usually acknowledged. Though Dee's various writings reflect a gradual appropriation of new sources, they do not indicate any fundamental shifts in his philosophical orientation. As early as in the *Propaedeumata aphoristica* of 1558, Dee presented a syncretistic conception of magic based on a fusion of Neoplatonic and medieval sources. And though the *Monas hieroglyphica* printed six years later includes a view of mysticism that is entirely missing from the *Propaedeumata aphoristica*, it echoes Dee's earlier views on magic while simultaneously foreshadowing the religious and eschatological dimensions of his angelic conversations in the 1580s. Dee's career as natural philosopher can, perhaps, best be described as a continuous striving toward a complete restoration of the wisdom of the ancients, a restoration which ultimately would lead him to the very origin of Truth — the Word.

I. Symbolic exegesis, language, and history

“God knoweth my zeale to honest and true knowledg; for which my flesh, blud, and bones shuld make marchandyse, yf the case so requyred.”¹⁶⁹ With customary hauteur he proclaimed what no reader of his texts can possibly doubt: that it was the quest for knowledge more than anything else that guided him through the toilsome burdens of life. Yet few things are more plain than Dee’s blatant taste for honour and fame of an overtly mundane cast. Futilely disguised as an “unknown friend”, he wrote a letter of acclamation of his own works, boldly claiming that “yf in the foresaid whole cours of his tyme he had found a Constant & Assistant CHRISTIAN ALEXANDER: BRYTAN, should not have bin, now, destitute of a CHRISTIAN ARISTOTELE”.¹⁷⁰

To take Dee’s incessant lamentations at face value would hardly give us a truthful picture of his career, however. Not only was he working as a respected counsellor in the midst of the political and intellectual elite of Elizabethan society, but through a number of philosophical texts he had obtained a reputation that remained untainted by the rumours surrounding his magical activities. In a renowned preface to the first English translation of Euclid’s *Elementa* he had given a thorough account of the important role of mathematics in the natural sciences. In *Propaedeumata aphoristica* he had treated the properties of the celestial influences and showed how their effects could be calculated by geometrical methods, and in a number of shorter works he had devoted himself to mechanics, navigation technology, and astronomy, as well as history and genealogy.¹⁷¹ But

¹⁶⁹ Dee, “Letter of Dr. John Dee to Sir William Cecyl, 16th February 1562”, p. 11.

¹⁷⁰ Dee, “A Necessary Aduertisement, by an Vnknown Freend”, p. 63.

¹⁷¹ *The Mathematicall Praeface* (1570) has been published in facsimile edition (New York, 1975). *Propaedeumata aphoristica* (1558 and 1568) has been published with accompanying English translation under the title *John Dee on Astronomy* (Berkeley, 1978). All references are to these modern editions. For a valuable bibliography of Dee’s extensive authorship, see Clulee, *John Dee’s Natural Philosophy*, pp. 302–309.

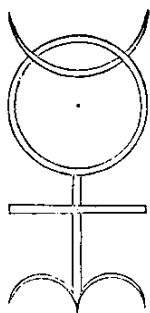


Fig. 2. The
“Hieroglyphic
Monad”. From
Dee, *Monas
Hieroglyphica*,
1564, fol. 25^r.

above all he had become renowned for the one work he himself regarded as his foremost feat — *Monas hieroglyphica*, “The Hieroglyphic Monad”.¹⁷² In this enigmatic text of barely sixty pages Dee presented a visual symbol he had constructed by merging the common astronomical and alchemical symbols (fig. 2). In twenty-four brief “theorems”, this symbol was “mathematically, magically, cabalistically, and anagogically explained”¹⁷³ in order to elucidate the innumerable cosmological, alchemical, magical and spiritual meanings it was claimed to comprise.

In his introduction to the text, Dee candidly praised the “great rarity and remarkable quality” of his work, remarking that even though his “mind had been pregnant with it during the whole course of seven years”, it had taken him only “twelve days most gently to bring it into the world”. Proudly he urged the reader to “examine its depth” carefully in order to uncover the “great secrets” and “philosophical treasures” that were “lying inwardly enveloped in the recesses of our monad”, and he assured that those who could fathom the “mysteries” of his symbol would be richly rewarded.¹⁷⁴ The scholar formerly devoted to the study of optics would “confound the stupidity of his art” when he in this symbol witnessed how “a mirror may be formed which (even when there are clouds before the Sun) can reduce any stones or any metal to, as it were, impalpable powders...” The one devoted to the science of weights would gasp in awe when he was

¹⁷² *Monas hieroglyphica* (1564) has been published in facsimile with accompanying English translation by C. H. Josten in *Ambix*, nos. 2 and 3, 1964. All references are to this edition. That Dee regarded this text as important is shown by the many references he made to it in works he had in his possession. See, for example, his marginalia in Pantheus, *Voarchadumia* (British Library, shelfmark 1033.h.1(2)), *passim*; Gohorry, *De usu et mysteriis notarum* (Cambridge University Library, shelfmark LE. 19.8(2)), fols. H.iii^r, I.iii^v; alchemical tracts by Johannes Dastyn (Oxford, Bodleian Library, MS Bodley 485), fols. 50^r and 139^v; and an anonymous alchemical manuscript, British Library, MS Stowe 1070, fol. 3^v. The best example is perhaps the charter showing the genealogies of himself and Queen Elizabeth, in which Dee has included a carefully executed self-portrait where he stands flanked by his coat of arms and the “Hieroglyphic Monad” (British Library, MS Cotton Charter XIV, art. 1).

¹⁷³ Dee, *Monas hieroglyphica*, pp. 154/155.

¹⁷⁴ Dee, *Monas hieroglyphica*, pp. 114/115, 146/147, 150/151, 186/187.

taught “by most certain experience that the element of earth can float above [that of] water...” The musician would be “struck with wonder” when he perceived in this mysterious symbol “inexplicable, celestial harmonies without any movement or sound”:

And will not the astronomer be very sorry for the cold he suffered under the open sky, for [all his] vigils and labours, when here, with no discomfort to be suffered from the air, he may most exactly observe with his eyes the orbits of the heavenly bodies under [his own] roof, with windows and doors shut on all sides, and without any mechanical instruments made of wood or brass?¹⁷⁵

Alchemy, astronomy, arithmetic, geometry, grammar, music, medicine, magic, optics, scrying and kabbalah — Dee’s “Hieroglyphic Monad” seemed to comprise a virtually inexhaustible knowledge of the world, a knowledge which somehow had been incorporated into one distinct graphical *symbol*.

Dee’s presumptuous claims aroused a certain wonder among his fellow scholars, and before he had returned from Antwerp, where the book was printed, Queen Elizabeth was forced to defend it “against such Universitie graduates of high degree, & other Gentlemen, who, therefore, dispraysed it, because they understode it not...” The Queen herself, however, turned out to be as gratified as ever and personally proffered her compliments on his philosophical feat — “whereupon her Majestie had a litle perusin of the same with me”, wrote the delighted Dee, “and then in most heroicall and princely wise did comfort me & encourage me in my studies philosophicall and mathematicall &c.”¹⁷⁶

Not everyone was as convinced of the value of the work as Queen Elizabeth, however. During his sojourn in Prague, Dee presented his book to Emperor Rudolph II, who after a few courteous phrases was compelled to conclude that it was “too hard for his Majesties capacity”. Much to Dee’s chagrin, the alchemist Andreas Libavius dismissed some of his notions in the work with the pithy epithet *ineptiae* — “fooleries” — while Meric Casaubon, the compiler of

¹⁷⁵ Dee, *Monas hieroglyphica*, pp. 130/131.

¹⁷⁶ Dee, *The Compendious Rebersall*, pp. 10, 19.

Dee's angelic conversations, a century later remarked that he could "extract no sense nor reason (sound and solid) out of it..."¹⁷⁷

Other scholars seem to have regarded Dee's pretensions as reasonably justified. More than a century after the publication of the work, Johannes Petrus Ericus claimed that the letters of the alphabet as well as the numerical system could be deduced from Dee's symbol. In his monumental *Oedipus aegyptiacus* (1653-5) Athanasius Kircher quoted at length from Dee's text, reproduced the clarifying diagrams and made some flamboyant elaborations of the hieroglyphic symbol to exemplify the wisdom of the ancient Egyptians. Kircher, however, never bothered to mention Dee as his source, obviously attributing the symbol to the venerable sage Hermes Trismegistos. In Dee's own lifetime *Monas hieroglyphica* received laudations from alchemists like Heinrich Khunrath and Thomas Tymme. Tymme also planned to translate the text into English and wrote a lengthy commentary on it, entitled *A Light in Darkness: which Illumineth for All the Monas Hieroglyphica of the Famous and Profound Dr. John Dee* (c. 1602). Robert Fludd invoked Dee's symbol when arguing with Johannes Kepler over the right use of mathematical symbolism, and in *Delle Imprese* (1592) the Italian scholar Giulio Cesare Capaccio claimed that the literary and moral symbols used by ancient authors like Homer, Pliny, and Cicero were impossible to understand fully without studying *Monas hieroglyphica* by "Giouanni Dee da Londino".¹⁷⁸

But no one was more keen to emphasize the remarkable quality of the work than Dee himself. In his letter of dedication to Maximilian II of Habsburg, he advised the emperor to keep the work from "the hands of the common people", not because he was grudging towards them, but because these "poor people may not be able to

¹⁷⁷ Dee, *A True & Faithful Relation*, p. 231, and 'Preface', sig. E3^v; Libavius, *Tractatus duo physici*, p. 41. Cf. also Dee's response to Libavius' critique in *A Letter, containing a most briefe discourse apologeticall*, pp. 77-8. As William R. Newman has recently argued, Libavius did not reject Dee's work as a whole, and in a commentary to his *Alchymia* Libavius described the layout of his own alchemical laboratory as based on Dee's *Monas* symbol. On this, see Newman "Alchemical Symbolism and Concealment: The Chemical House of Libavius".

¹⁷⁸ Ericus, *Renatum è mysterio principium philologicum*, especially pp. 10-12; Kircher, *Oedipus aegyptiacus*, II, especially pp. 29, 393-434; Khunrath, *Amphitheatrum sapientiae aeternae*, p. 6; Tymme, *A Light in Darkness*; Fludd, *Veritatis proscenium in quo aulaeum erroris tragicum dimovetur*, in *Utriusque cosmi maioris... historia*, II, pp. 31-33; Capaccio, *Delle Imprese*, fol. 4^v.

extricate themselves from that labyrinth (while they torture their minds in incredible ways, and neglect their everyday affairs)".¹⁷⁹ No doubt it would be utterly futile for a common man to try to penetrate the "Hieroglyphic Monad", Dee claimed, for in reality only one man in a thousand acquired "the first taste of the fundamental truths of natural science". And yet it was only one in a thousand of these rare men who had "intimately and thoroughly explored the explanations of the celestial influences and events [as well as] the reason of the rise, the condition and the decline of other things":

What, then, shall we say of him who, having surmounted all those difficulties, has aspired to an exploration and understanding of the supracelestial virtues and metaphysical influences? Where in the whole world (and in these our most deplorable times) shall we hope that there is that magnanimous, that probably singular hero?¹⁸⁰

Though Dee with a humble gesture implied that his symbol had to be ascribed a lower philosophical position, giving a mere "taste of the fundamental truths of natural science", the implication is still that his symbol contained truly marvellous secrets — indeed, that this "singular hero" who had gained an understanding of the "supracelestial virtues and metaphysical influences", "one in a thousand millions of men of the common sort", was no one else but John Dee himself.

Reading Dee's text, however, is an enterprise that can prove trying to the most erudite scholar's patience. Having once dipped into the text, the reader soon realizes that what seem a small hors-d'oeuvre of barely sixty pages is an extremely complex philosophical tract, made up of disparate elements stemming from widely different intellectual contexts and brought together in a way which often recasts them beyond recognition. Explicitly addressing the *mystae* and *initiati*, those few initiated readers who were deemed worthy to gain insight into the esoteric disciplines,¹⁸¹ Dee deliberately presents his notions in vague

¹⁷⁹ Dee, *Monas hieroglyphica*, pp. 150/151.

¹⁸⁰ Dee, *Monas hieroglyphica*, pp. 116/117.

¹⁸¹ Dee, *Monas hieroglyphica*, pp. 150/151, 172/173, 184/185, 194/195. For a discussion of the tradition of secrecy in medieval and early modern science and occultism, see Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture*, and his essay "From the secrets of nature to public

and cryptic wordings, interspersed with abstruse allusions to ancient philosophers. And even when the meaning of the brief theorems occasionally do seem clear-cut and unequivocal, a number of questions remain unanswered — not least why Dee throughout his text seems to regard the properties of his Monas symbol as a means to understand reality; why he considers himself to shed light on the laws of nature by explicating a graphical symbol. The most striking feature of Dee's text is that none of the reappraisals he was laying claim to — of alchemy, arithmetic, astronomy, optics and of a host of other disciplines — were substantiated by referring to conditions in physical reality. These reappraisals were supposed to be achieved by contemplating the symbol itself. Rather than representing a knowledge which had been grounded in the world external to it, the symbol was the very means by which the world could be explored, ultimately revealing truths that no contemporary man had any knowledge of.

This use of images and symbols was by no means unique to Dee, but was virtually omnipresent in the occult sciences of the Renaissance. As Urszula Szulakowska recently remarked, it almost seems as if

there is a “slippage” from the symbolic/metaphoric level to the level of reality... These transitions may not always be noted by such authors [as Dee] who may use the two levels simultaneously. It is as if there is an innate instability in the Renaissance signing-system which reflects an uncertainty about the placement of the signifier (the metaphor) in relation to its referent in reality.¹⁸²

And yet, however baffling this “ill-defined relationship between reality and metaphor” might seem to us, it is hardly an issue which “may simply concern the degree to which even the educated culture of the period could accommodate abstraction”, as Szulakowska suggests in a curious remark.¹⁸³ More often than not, our proneness to characterize the distinction between symbol and reality in Renaissance occultism as “ill-defined” or even non-existent is no more than a reflection of our persistent habit of regarding our own signifying practices as indispensable for an undistorted view of reality. Natural as it may seem, such a view is no longer tenable. As James Bono aptly

knowledge”.
¹⁸² Szulakowska, *John Dee and European Alchemy*, pp. 36-37.

¹⁸³ Szulakowska, *John Dee and European Alchemy*, p. 37.

puts it, “science and Renaissance occultism are both interpretive activities, and what distinguishes them, if anything, is the manner in which the theories of language by which each is informed determine its hermeneutical practices and thus defines it as a *discourse*”.¹⁸⁴ To phrase it in this way is not to disavow the immense difference between Renaissance occultism and what we term “science”. Instead, this perspective allows us to stake out a shared ground from which we can properly study and understand the difference. Rather than simply begging the question at issue by characterizing the relationship between symbol and reality in Renaissance occultism as “ill-defined” or “unstable”, this perspective enables us to pose it in a meaningful way: what relation did the symbol bear to reality, and how did this relationship inform the discursive practices employed to interpret nature?

Needless to say, it is an entirely different task to answer this question than to pose it. When reading Dee’s *Monas hieroglyphica*, one constantly confronts the distance separating his ways of understanding the world from ours, a distance so great that historians have had considerable difficulties ascertaining what subject this text is really addressing. Generally it is described as an alchemical work, a characterization supported by Dee’s earliest printed work, the *Propaedeumata aphoristica* (1558), in which the hieroglyphic symbol is reproduced on the title-page and described as a “symbol” (*insigne*) of “inferior astronomy” (*astronomia inferior*), an expression commonly used to denote alchemy.¹⁸⁵ However, though alchemy is a dominant theme in the text, it cannot give us an exhaustive picture of Dee’s intentions. Focusing on the magical and astrological notions of the work, Frances Yates characterized the Monas symbol as a “unified arrangement of significant signs, infused with astral power”, inciting a “unifying effect on the psyche” of the beholder which induced in a kind of mystic ascent of the soul towards God. Her interpretation was shared by Peter French who emphasized that the “process of man’s spiritual transformation is ... the deepest subject of this work, rather than the mundane alchemical quest for gold”. Indeed, according to French

¹⁸⁴ Bono, *The Word of God and the Languages of Man*, p. 52.

¹⁸⁵ Dee, *Propaedeumata aphoristica*, LII, pp. 148/149. Cf. *Monas hieroglyphica*, pp. 163/164, where Dee refers to this earlier work. For discussions of the alchemical aspect of the Monas symbol, see Calder, *John Dee Studied as an English Neoplatonist*, I, pp. 570-590; Josten, “Introduction”, pp. 84-90, 99-111; and Clulee, *John Dee’s Natural Philosophy*, pp. 96-111.

this visual symbol enabled the beholder to “release himself from his body and return to his original divine nature”.¹⁸⁶ Although this interpretation to a large extent was justified, neither Yates nor French made any attempt to analyse the text in detail and therefore omitted the intellectual context underlying these conceptions.

The difficulties of finding an appropriate label for the work are largely due to Dee’s unconventional way of bringing together traditional “exoteric” disciplines like music, geometry and astronomy with “esoteric” disciplines like alchemy, magic and kabbalah. These two groups of disciplines were generally treated separately, as they lacked a common foundation from which their laws were derived. Yet Dee seems to have believed that such a common foundation did exist — indeed, he suggests that this common foundation was the very crux of the *Monas hieroglyphica*. In the introduction he stated that the common symbol of Mercury, which formed the basis of the Monas symbol, “may rightly be styled by us the rebuilder and restorer of all astronomy”, both “inferior astronomy”, alchemy, and “superior astronomy”, treating the movements and properties of the heavenly bodies. For this reason, he argued, we may also call the symbol of Mercury

an astronomical messenger [who was sent to us] by our IEOVA so that we might either establish this sacred art of writing [*Sacra Scriptiois Ars*] as the first founders of a new discipline, or by his counsel renew one that was entirely extinct and had been wholly wiped out from the memory of men.¹⁸⁷

Clearly, the real theme of the text was not any of the scientific disciplines he claimed to shed light on, but what he called a “sacred art of writing” — an art of writing revealed by the grace of God and which Dee was either the first to conceive, or which had been known in ancient times too, but since then completely forgotten. Significantly, Dee later remarked on the “the strange and vndue speeches deuised of that hieroglyphical writing”, but claimed that Queen Elizabeth had defended him against the slander, saying “Verilie, deare Doctor, you have contrived a moste economicall and ingeniouslie cunnige communication for your secrets.”¹⁸⁸

¹⁸⁶ Yates, *The Art of Memory*, p. 262; French, *John Dee*, p. 76.

¹⁸⁷ Dee, *Monas hieroglyphica*, pp. 122/123.

¹⁸⁸ Dee, “A Necessary Aduertisement, by an Vnknown Freend”, p. 56; and *The Compendious Rehersall*, p. 10.

If we take Dee's claims at face value, the Queen's appreciative remark does not seem entirely unfounded. As Dee explained, this "sacred" or "hieroglyphical" writing was "more divine" than any other form of writing since it was "born to us by the law of creation [*Creationis Lex*]" and thus it "invents new arts and explains the most abstruse arts very faithfully, as others, following our example, may try out in some other field".¹⁸⁹ Not only did the disciplines he cited have a common foundation which could be comprehended by studying his "sacred art of writing"; since it in some way corresponded to the "law of creation", this writing was also able to generate new disciplines, hitherto unknown to mankind. As suggested by his remark that readers should follow his example and try this for themselves, the text was never intended as an exhaustive account of any of these disciplines. Rather, as Nicholas Clulee has pointed out, the text was an accompanying commentary on the symbol, merely providing a number of "examples of how the new art of hieroglyphic writing illuminates the mysteries of these arts".¹⁹⁰

Despite the symbol's undeniable similarity to the traditional alchemical and astrological characters, Dee saw no contradiction in claiming to be its sole contriver/restorer. In his view, it was the Monas symbol that was the model and prototype of these characters, not vice versa. Not only was it possible to derive all of these traditional characters from the symbol; in doing so, he claimed, he had also "reduced or restored" them to their proper, "mystical proportions" — "As if in an age long past they had been the same, or as if our forefathers had wished that in the future they should be such."¹⁹¹ Reduced to their proper shapes, these characters were now able to express their true meanings to anyone studying them, regardless of language and nationality:

[I]s it not rare, I ask, that the common astronomical symbols of the planets (instead of being dead, dumb, or, up to the present hour at least, quasi-barbaric signs [*notae*]) should have become characters [*characteres*] imbued with immortal life and should now be able to express their espe-

¹⁸⁹ Dee, *Monas hieroglyphica*, pp. 134/135.

¹⁹⁰ Clulee, *John Dee's Natural Philosophy*, p. 84.

¹⁹¹ Dee, *Monas hieroglyphica*, pp. 120/121.

cial meanings most eloquently in any tongue and to any nation?¹⁹²

However different Dee's angelic conversations and the earlier *Monas hieroglyphica* were in character, they also shared a feature that was central to Dee's approach to natural philosophy: they were both aimed at finding a language that could yield a consummate knowledge of the world, a language by means of which man would be able to comprehend "all things within the Compasse of Nature", as one of the angels characterized the Adamic language.¹⁹³

As a written language consisting of one single symbol, Dee's hieroglyphic writing was, of course, not *the* Adamic language. But the metaphysical and historical conceptions underlying the *Monas* symbol were to a large extent identical to those bolstering the angelic conversations. In both cases, the power of language to yield knowledge was intimately linked to Christian conceptions of man and human history. In *Monas hieroglyphica* Dee claimed that by contemplating the *Monas* symbol, mankind would find protection "against the nakedness brought down on us by Adam" — the "raw colds of ignorance" — and ultimately attain "a healing of the soul and a deliverance from all distress..."¹⁹⁴ It was an art of writing which to some extent had the power to achieve what the "celestiall speech" of the angels was claimed to achieve — the power to rehabilitate mankind from the consequences of the Fall.

In fact, Dee's preoccupation with language and its relation to nature predated the *Monas hieroglyphica* by several years. As early as 1557 he claimed to have written a text entitled *Speculum unitatis, siue apologia pro Rogero Bachone anglo*, "The Mirror of Unity, or an Apology for the Englishman Roger Bacon". Though the work no longer exists, he briefly alludes to it in *Monas hieroglyphica*, claiming that in this text he had demonstrated

that a grammarian who could exactly defend [the thesis]
that grammar is one science, [and] that it descends from

¹⁹² Dee, *Monas hieroglyphica*, pp. 120/121.

¹⁹³ Dee, *A True & Faithful Relation*, p. 77.

¹⁹⁴ Dee, *Monas hieroglyphica*, pp. 138/139, 198/199.

one man, is as rare as that man whom above we have shown to be the most rare one on earth.¹⁹⁵

The philosopher who could reveal the common grammar beneath all languages, that very grammar that “descends from one man” — the first man, Adam — would be that “magnanimous, that probably singular hero” who had obtained a perfect knowledge of the world. That philosopher would have risen through the hierarchy of knowledge, grasped “the fundamental truths of natural science”, explored “the celestial influences and events”, and attained an “understanding of the supracelestial virtues and metaphysical influences”.¹⁹⁶ He would have obtained a consummate knowledge, not only of the laws of nature, but of the divine powers of the Creator.

In recent years Dee’s text on the “Hieroglyphic Monad” has earned a reputation that verges on the infamous. In the wake of the popular “Yates thesis” it has emerged as a key text of the early modern period, essential not only to our understanding of Dee but of the whole intellectual context he was working within. And yet, extraordinarily obscure and enigmatic even by esoteric standards, it has to a large extent resisted attempts at interpretation. The most thorough and elucidative analysis hitherto has been undertaken by Nicholas Clulee, who has pinpointed in an admirable way many of the sources behind Dee’s notions.¹⁹⁷ Despite the enigmatic character of the work, it is clear that many of the individual elements in *Monas hieroglyphica* traced their origin from widespread sources and long-standing traditions. What made the text original was not Dee’s claims with regard to the individual disciplines it was said to elucidate, but the idea of the Monas symbol as a form of writing, “a writing that reduces astronomy, alchemy, magic, and mysticism to the same discourse and in one breath speaks a knowledge of each”, as Clulee puts it.¹⁹⁸

¹⁹⁵ Dee, *Monas hieroglyphica*, pp. 122/123: “...tam Rarum esse Grammaticum, QVI Grammaticum, VNAM esse Scientiam, ab VNO discendam Homine, exacte defendere possit: Quam Illum; quem supra in Terris demonstrauius Rarissimum...” This text is also listed in *Propaedeumata aphoristica*, pp. 116/117; *A Compendious Rehearsall*, p. 26; and *A Letter, containing a most briefe discourse apologeticall*, p. 75.

¹⁹⁶ Dee, *Monas hieroglyphica*, pp. 116/117-118/119.

¹⁹⁷ Clulee, *John Dee’s Natural Philosophy*, pp. 77-142.

¹⁹⁸ Clulee, *John Dee’s Natural Philosophy*, p. 115.

Although Clulee's analysis has deepened our understanding of the work considerably, it is precisely this idea — that the Monas symbol constituted a “writing” which revealed the common foundation of all knowledge — that needs to be further examined. In stressing the direct sources of Dee's notions, Clulee tends to neglect the wider contexts of Dee's approach, thereby begging the question of why Dee found this idea meaningful. Though duly noting Dee's dependence on Renaissance notions of “natural” languages, hieroglyphics, kabbalah, Pythagorean number symbolism and so forth, Clulee does not discuss how these concepts were related to each other in Dee's work. It is these relationships, however, we need to examine if we are to understand *Monas hieroglyphica* not merely as an amalgamation of different textual sources, but as an attempt to comprehend the world.

Dee's various attempts to employ language to gain knowledge of the natural world, ranging from the lost *Speculum unitatis* of 1557, via *Monas hieroglyphica* of 1564, to his angelic conversations in the 1580s, highlight his preoccupation with what James Bono has termed symbolic exegesis. As Bono stresses, this generic term covers an extremely heterogeneous field of interpretive practices. Neither grounded in a monolithic “theory” of language, nor in a specific philosophical “tradition of thought”, symbolic exegesis was practiced in varying ways depending on the philosophical and religious orientation of individual scholars. What these scholars shared was, in loose terms, a set of assumptions about the relations between language, nature and the divine which authorized attempts to fathom nature through the medium of language. The apparent lack of stringency in this formulation is deliberate, as these relations were metaphorically defined and could be construed differently by being embedded in different cultural narratives and conceptual frameworks. Before we continue to analyse Dee's works, it might therefore be helpful to make a brief review of how the three main elements in this cluster of interrelated concepts — the Word of God, the languages of man, and the Book of Nature — were viewed from a more general perspective.

The Word of God and the languages of man

The notion that language can “mirror” the world so completely that it yields knowledge of the things it represents was a commonplace in



Fig. 3. God creating the world by the breath of His mouth. From Charles de Bouelles, *Libellus de nichilo*, 1510, fol. 63^r.

medieval and early modern philosophy, rooted deeply in classical philosophy. The most famous expression of this idea can be found in Plato's dialogue *Cratylus*, in which Plato argued that a name "belongs by nature to each particular thing" and is "able to embody its form in the letters and syllables".¹⁹⁹ According to this theory, language was essentially mimetic: the words and the letters represent a thing "by likeness" and are "by their very nature like the things".²⁰⁰ Hence, the name was a means to gain knowledge of the thing it designated. "He who knows the names knows also the things named", Plato's alter ego Socrates argued in the dialogue, and "when anyone knows the nature of the name — and its nature is that of the thing — he will know the thing also, since it is like the name".²⁰¹ However, though Plato described a name as a "vocal imitation" of the thing, one should not confuse language with the imitative arts. For whereas arts like painting and music merely imitated the appearances of things, language imitated the inner "nature" of the thing, that very essence which

¹⁹⁹ Plato, *Cratylus*, 390 E, p. 31.

²⁰⁰ Plato, *Cratylus*, 430E, 433D, 434A, pp. 159, 169.

²⁰¹ Plato, *Cratylus*, 435 D-E, p. 175.

constituted the true identity and reality of the thing, making it what it truly was.²⁰²

Plato's theory of language was thus dependent on the distinction that constituted the very foundation of his philosophy: the distinction between the world of Being and the world of Becoming, between the eternal Ideas and the perishable things. As is well known, the Platonic metaphysics became a fundamental element in the Christian world view. In the hands of patristic writers, Plato's description of the transitory and changeable world as a pale shadow of an eternally constant — and thus truly existent — realm of Ideas, existing beyond the world of tangible objects, was turned into the basis of the Christian universe. The Christian interpretation of Plato's work was facilitated by the apparent similarities between the biblical Genesis and Plato's account of the Creation in *Timaeus*, describing how the divine Creator shaped the cosmos with the eternal Ideas as his model.²⁰³ In his *Confessions*, Augustine (354-430) referred to "certain books of the Platonists" wherein he claimed to have found

not indeed in the same words, but to the selfsame effect, enforced by many and various reasons that 'in the beginning was the Word, and the Word was with God, and the Word was God. The same was in the beginning with God. All things were made by him; and without him was not anything made that was made'.²⁰⁴

To Augustine it was clear that Plato had disclosed a metaphysics in all essentials identical to the Christian world view, the metaphysics revealed to mankind through the Holy Scripture. Thus the "Word" in the Gospel of St. John, the Greek *Logos*, was not only referring to Christ, the corporeal incarnation of God on earth. When the Platonic metaphysics and the story of Creation recounted in *Timaeus* were conflated with the biblical account, the Word appeared as identical to the intelligible archetypes or principles enclosed in the Divine Mind: "the Word was with God, and the Word was God". Using these archetypes as a pattern, God had created all things in the universe, an act of Creation accomplished by literally giving voice to the Word: "And God said..." — "By the Word of the Lord were the heavens

²⁰² Plato, *Cratylus*, 423B-424A, pp. 135-137.

²⁰³ Plato, *Timaeus*, especially 27D-29A, pp. 49-51.

²⁰⁴ Augustine, *Confessions*, VII.9, p. 144, quoting John 1:1-3.

made; and all the host of them by the breath of His mouth” (fig. 3).²⁰⁵

But the Word was also identical to the holy Scriptures, written down by prophets illuminated by the light of God. In this text, mankind had access to Truth entire and perfect, the very Wisdom of God, hidden under a vesture of letters and words. In a striking passage Claudius of Turin (d. 877) described how the Word was incarnated in the body of the Scriptures just as it had been incarnated in the body of Christ:

[T]he Word came into the world by Mary, clad in flesh; and seeing was not understanding; all saw the flesh; knowledge of the divinity was given to a chosen few. So when the Word was shown to men through the lawgiver and the prophets, it was not shown to them without suitable vesture. There it is covered by the veil of flesh, here of the letter. The letter appears as flesh; but the spiritual sense within is known as divinity. [...] Blessed are the eyes which see divine spirit through the letter’s veil.²⁰⁶

Incarnated in a textual “body”, truth was accessible through exegesis, a continuous act of interpretation which gradually allowed man to discern the “divine spirit through the letter’s veil”. As it was put in a pseudo-Clementian text, “we must carefully scrutinize the Scriptures since it is agreed that they are written in parables. We must search in names for the meanings which the Holy Spirit intended to relate to realities and which he teaches us by inscribing, so to speak, his thoughts in the words...”²⁰⁷

Christian scriptural exegesis rested on the belief that the biblical text was a *true* expression of the Word, exactly mirroring, albeit in figurative language, the spiritual Truth from which it stemmed. Rather than being an obstacle to man’s comprehension of the Word, the textual “veil” concealing it was the very medium making it accessible to man. The Platonic language view which lay implicit in this notion was a major influence on the thought of Pseudo-Dionysius,

²⁰⁵ Psalms 33:6.

²⁰⁶ Claudius of Turin, *In libros informationum litterae et spiritus super Leviticum praefatio*, as quoted and translated in Smalley, *The Study of the Bible in the Middle Ages*, p. 1.

²⁰⁷ *Eclogae propheticae*, as quoted and translated in Smalley, *The Study of the Bible in the Middle Ages*, p. 8.

whose treatise *The Divine Names* formed the basis of Christian exegetical methods. In *Cratylus*, however, Plato had also acknowledged that no human idiom in its entirety was a “true” or “natural” language in which the words mirrored “the reality of things and imitates their essential nature”. As most tongues had been created by men who had little knowledge of the essential nature of things, all languages were more or less defective imitations of reality.²⁰⁸ But the Scriptures were not a text written by man. It was *the* Text, dictated by the Holy Ghost and truly expressing His Wisdom. As Philo of Alexandria (c. 15BC-40AD) stated in a well-known passage:

Elsewhere the universal practice of men as a body is to give to things names which differ from the things, so that the objects are not the same as what we call them. But with Moses the names assigned are manifest images of things, so that name and thing are inevitably the same from the first and the name and that to which the name is given differ not a whit.²⁰⁹

Whereas human languages were “conventional” idioms, founded on social agreement and customs, the Scripture spoke through a “natural” language, a language in which word and thing had a true relationship to each other, in which the things bore their right names and in which the words could yield knowledge of what the things really *are* by mirroring their nature so completely that word and object “differ not a whit”. Yet Philo’s strict distinction between the “conventional” character of human language and the “natural” properties of the sacred Scripture was not completely fair. For between the Word of God and the languages of man existed a link forged by biblical historiography.

In Genesis, Adam is clearly portrayed as a speaking being, possessing the power to use language as a communicative means. Yet the biblical story of the Creation is surprisingly reticent about the origins of this exclusively human faculty. Not till the second chapter, when the Lord has created the first woman out of Adam’s rib, are we even allowed to hear him speak in his own words: “She shall be called Woman, because she was taken out of Man”.²¹⁰ Though there is no indication of what language Adam spoke when uttering these words,

²⁰⁸ Plato, *Cratylus*, 436 B, p. 177; see also 440 C, p. 191.

²⁰⁹ Philo Judaeus, *On the Cherubim*, XVII [56], p. 43.

²¹⁰ Genesis 2:23.

the very point of the phrase suggests that it was identical or at least kindred to Hebrew, the language in which the Bible was originally written. In Hebrew the word “woman”, *ishhà*, is simply a feminine form of *ish*, “man”. The same conclusion could be drawn from the fact that the first man was given the name Adam since God had “formed man [Hebr. *ādām*] of the dust of the ground [Hebr. *adamā*]”. Likewise, the wife of Adam was named Eve, a word closely akin to a Hebrew word meaning ‘living’, “because she was the mother of all living”.²¹¹

Irrespective of whether this primordial tongue was Hebrew or some kindred language, one conclusion seemed inevitable: that it was a “true” and “natural” language, expressing the very essence of the things it designated. This belief was clinched by the account of how Adam named all the creatures of the earth “by their own names”, by those names they in some sense were meant to bear.²¹² As Philo of Alexandria phrased it when expounding this particular passage:

[Adam] received the impressions made by bodies and objects in their sheer reality, and the titles he gave were fully apposite, for right well did he divine the character of the creatures he was describing, with the result that their natures were apprehended as soon as their names were uttered.²¹³

Though there is no direct indication in the biblical text of how Adam was capable of apprehending things “in their sheer reality”, scholars commonly linked this power to the Christian conception of man as an *imago Dei*. Created in God’s image and likeness, the first man had carried a flawless reflection of God’s Wisdom within his soul, making him perfect in knowledge and understanding. In a sermon delivered in Saint Paul’s cathedral in 1662, Robert South vividly described Adam’s intellect as “lofty and serene, free from the vapours and disturbances of the inferiour affections”, giving “the Soul a bright, and a full view into all things”. Having all principles of reasoning and knowledge innate in his mind, “clear and unsullied”, Adam “came into the World a Philosopher” who could “view Essences in themselves, and read Forms without the comment of their

²¹¹ Genesis 2:7, 3:20.

²¹² Genesis 2:19-20. On the importance attributed to this passage by patristic writers and medieval philosophers, see Bloch, *Etymologies and Genealogies*, pp. 30-63.

²¹³ Philo Judaeus, *On the Creation*, LII [150], p. 119.

respective Properties” — “An *Aristotle* was but the rubbish of an *Adam*, and *Athens* but the rudiments of Paradise.”²¹⁴

The biblical account of Adam’s naming of the animals had enormous consequences for how the properties of language were understood and discussed in the Christian world. For by properly representing the essential nature of things, the Adamic tongue also reflected those divine principles of creation from which the universe was formed. The biblical narrative, in other words, provided a link between the languages of man and the Word of God. In this primordial state, man’s speech had been an undistorted reflection of the *verbum Dei*, enabling the speaker not only to apprehend the true nature of things, but the very Wisdom of the Creator.

But Genesis is also the story of how the Adamic language was lost to mankind. Following the vivid account of the Fall, Cain’s slaying of his brother, the Flood and the hardships of Noah, language once again emerges as the significant theme: “And the whole world was of one language, and of one speech.”²¹⁵ Dwelling on a plain in the land of Shinar, people said to each other: “let us build us a city and a tower, whose top may reach unto heaven; and let us make us a name”.²¹⁶ God’s response to this insolent pride is one of the most notorious episodes in biblical historiography: seeing that the speech of mankind was one, God confounded their language, splitting it into a diversity of tongues and rendering it impossible for people to understand each other. Henceforth the city was called Babel, “because the Lord did there confound [Hebr. *balál*] the language of all the earth: and from thence did the Lord scatter them abroad upon the face of all the earth”.²¹⁷

Due to the dramatic character of this episode, this passage became the *locus classicus* when scholars tried to explain the diversity of languages and nations. But the biblical account of the *confusio linguarum* is not entirely unproblematic. Even before the incident at Babel, the descendants of Japhet, Ham and Shem are stated to have been “divided in their lands; every one after his tongue, after their families,

²¹⁴ South, *A Sermon Preached At the Cathedral Church of St. Paul*, pp. 8-14. For a valuable survey, showing how widespread these notions were, see Katz, “The Language of Adam in Seventeenth Century England”.

²¹⁵ Genesis 11:1.

²¹⁶ Genesis 11:4.

²¹⁷ Genesis 11:6-7, 11:9.

in their nations”.²¹⁸ Consequently, there was a possibility that the primordial tongue had been lost a long time before the events at Babel. Most likely, this had happened at the Fall, when Adam and Eve were driven out of Paradise and the immaculate intellect of Adam — the very faculty enabling him to apprehend the “sheer reality” of the creatures and bestow names upon them in accordance with their true natures — had been clouded and marred. This deterioration of man’s mind was commonly referred to as the *deformatio*, alluding to how Adam’s original likeness to God was lost as a consequence of his sin against God. As we shall see in later chapters, the notion of man as a “deformed” *imago Dei*, fostering the hope of a coming “reformation”, played an important role in early modern discussions of the Adamic language and its recovery.

The inconsistencies of the biblical account also left room for the possibility that the confusion of tongues — at the Fall and/or the Tower of Babel — had befallen only some branches of Adam’s descendants, with the implication that the primordial language was still intact and in use among some peoples. In *De civitate Dei* Augustine stated that when the hand of God was shaking the city of Babel, “one house was still found, that of Heber, in which the language formerly spoken by all men might persist”, a language which was “thereafter called Hebrew”.²¹⁹ Augustine’s interpretation of Genesis remained prevailing — though certainly not uncontested — for more than a millennium, shared by such different scholars as Thomas Aquinas, Martin Luther, Marsilio Ficino, Conrad Gesner and Paracelsus. In the middle of the seventeenth century Edward Leigh asserted:

Of languages, the Hebrew as it is the first and most ancient of all, so it alone seems to be pure and sincere, all the rest almost are mixt: for there is none of them which hath not certain words derived and corrupted from the Hebrew.²²⁰

At this point, however, the consensus came to an end, and the questions of when, if, why and how the primordial language had been lost were subject to a range of different interpretations, all having different consequences for a number of important theological and philosophical problems. In what way, exactly, was language affected by the confusion of tongues? To what degree was it possible to restore

²¹⁸ Genesis 10:5, 10:20, 10:31.

²¹⁹ Augustine, *The City of God*, XVI.11, pp. 61-63.

²²⁰ Leigh, *A Treatise of Religion & Learning*, p. 56.

contemporary languages to their primordial condition? To what degree had mankind access to the pristine knowledge contained in the original tongue, and what consequences would this knowledge have? Indeed, what did it mean to say that the original tongue had been a “true” and “natural” language?²²¹

In his monumental *Thrèsor de l'hisorie des langues de cet univers* (1613) Claude Duret proposed that the Hebrew names bestowed upon the animals by Adam were “natural” in the sense that they comprised a kind of natural history of the creature in question. The eagle was called *Nescher*, “a word formed by the combination of *Schor* and *Ischar*, the first meaning to look and the second to be straight, because, above all others, the eagle is a bird of firm sight whose gaze is always directed towards the sun”. The lion, by contrast, had been bestowed three names in Hebrew: *Aryeh*, which was derived from the Hebrew word for tearing and lacerating; *Labi*, which was related to the word *leb*, “heart”; and *Laysch*, which “bears an analogy with the verb *Iosch*, which means trample because this animal tramples and damages its prey”.²²²

Duret’s down-to-earth view can be contrasted to Robert Wakefield’s claims in *Oratio de laudibus et utilitate trium linguarum* (1524). According to Wakefield, the Hebrew language not only “copies nature perfectly in everything” and “follows the nature of reality”, but also preserves “celestial idiom as God uses when he speaks” in its diction. Hebrew was “God’s method of speaking”, the very divine tongue He had used when communicating with Adam and the angels. But it was also the most “natural” language for a human being to speak since “every sound made by the human throat can be indicated

²²¹ The classic work on the interpretation of the confusion of tongues is Arno Borst’s monumental *Der Turmbau von Babel*. A valuable aid is Gordon W. Hewes’ bibliography of literature treating of the origins of language, *Language Origins: A Bibliography*. For a recent discussion, see also Bono, *The Word of God and the Languages of Man*, in this context especially pp. 53–64.

²²² Duret, *Thresor de L’Histoire des langues*, pp. 39–40: “L’aigle est nommee Nescher mot qui conuient avec Schor & Ischar, dont l’un signifie regarder, l’autre estre droit, pource que cest oiseau entre tous a la veuë ferme & tousiours esleuee contre le soleil. [...] Le Lyon a trois noms, assauoir *Ariech*, *Labi*, *Laysch*, Le premier vient d’un autre qui signifie arracher & deschirer: le deuxiesme se rapporte au mot *Leb*, qui signifie le cœur, & *laab* c’est à dire estre en solitude. Le troisiemesme mot signifie ordinairement un grand & furieux lyon, & a conuenance avec le verbe *Iosch*, qui signifie fouler ou paistrirquelque chose, pource que cest animal foule & faboule sa proye.”

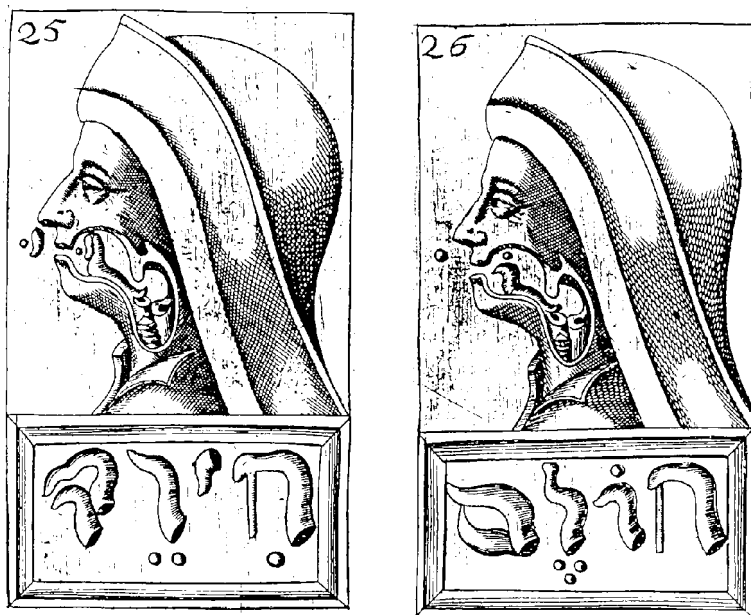


Fig. 4. The correspondence between the human vocal organs and the Hebrew letters. From Franciscus Mercurius van Helmont, *Alphabeti veri naturalis Hebraici brevissima delineatio*, 1667, plates 25 and 26.

by Hebrew signs and letters, [which] is not possible with the letters of other languages”.²²³

The idea that the “naturalness” of Hebrew was connected to the capacities of the human vocal organs was taken several steps further by Franciscus Mercurius van Helmont. In *Alphabeti veri naturalis Hebraici brevissima delineatio* (1667), van Helmont not only hailed Hebrew as the speech most easily reproduced by the vocal organs, but considered the Hebrew *letters* to reproduce the shape of the vocal organs — the tongue, the palate, the uvula, and the glottis — produced when uttering the words (fig. 4).²²⁴

²²³ Wakefield, *On the Three Languages*, pp. 96/97, 74/75, 92/93.

²²⁴ On van Helmont’s language theory, see Allison Coudert’s *The Impact of the Kabbalah in the Seventeenth Century: The Life and Thought of Francis Mercury van Helmont (1614-1698)*, as well as her numerous essays: “Some Theories of a Natural Language from the Renaissance to the Seventeenth Century”; “A Cambridge Platonist’s Kabbalist Nightmare”; and “A Quaker-Kabbalist Controversy: George Fox’s Reaction to Francis Mercury van Helmont”.

The status of Hebrew as the primordial tongue did not remain uncontested, however, and virtually every European language was at some point hailed as *the* language, sometimes with conspicuous patriotic overtones. In *Arte de la lengua española castella* Gonzalo Correas (c. 1571-1631) proposed that Adam had spoken Spanish in the garden of Eden. Eve, however, had been confined to speaking Italian, whereas the vicious serpent had uttered his seductive lies in German. This complicated course of events was repeated with some essential corrections in *Die Sprachen des Paradieses* by the Swede Andreas Kempe (1622-1689), who suggested that God had addressed Adam in Swedish, Adam replied in Danish, while Eve had been tempted by a serpent making “so artige Krumsprünge und Fransche Minen” — “merry capers and French faces”.²²⁵

Despite the lack of consensus among scholars, however, the various approaches to language shared a fundamental assumption: due to the biblical account, language was embedded in a narrative framework, in a *history* in both senses of the word, which dissolved the simple dichotomy between “conventional” and “natural” languages. Even when Hebrew was hailed as the Adamic tongue, contemporary Hebrew was usually regarded as a slightly degenerated form of the original prelapsarian tongue — why else would the Jewish people still be in want of the pristine knowledge Adam had once possessed? Hence, the languages of man appeared neither as “conventional” nor as “natural” idioms; they appeared as marred reflections of reality, as images deprived of their absolute likeness to things, but whose true shapes were still possible to retrieve by uncovering their lost original form.

As a consequence, the derivation of words, their etymology, appeared as an interpretive practise through which one could gain insight into the true nature of things — after all, the word etymology itself was derived from the Greek *etumos*, “true”, “real”, “unadulterated”. In the widely read *Etymologiarum sive originum libri XX* Isidore of Sevilla (570-636) made the Latin language — like Greek and Hebrew regarded as a “holy language” (*lingua sacra*), as these were the

²²⁵ Borst, *Der Turmbau von Babel*, III:1, pp. 1363, 1383, 1338-1339; Hewes, *Language Origins*, I, pp. 148, 375-376. Kempe is quoted from Elert, “Andreas Kempe (1622-1689) and the Languages Spoken in Paradise”, p. 223. Elert raises some doubts about Kempe’s motives, suggesting that the text was intended as a parody on the genre. Far-fetched as it may seem, however, Kempe’s text appears to have been received as seriously intended.

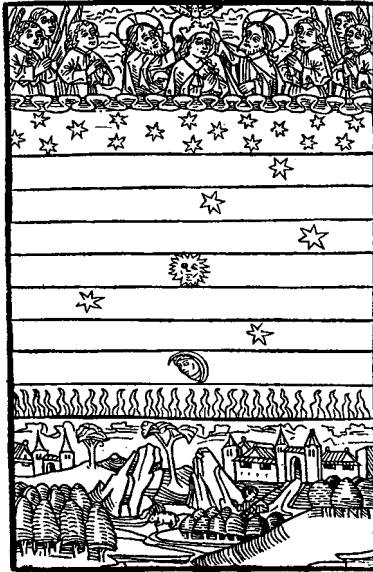


Fig. 5. The universe as a hierarchy.
From Konrad von Megenberg, *Das Buch der Natur*, 1499, fol. C5^v.

three languages used on the inscription above the crucified Christ — subject to a series of cumbersome etymologies intended to reveal the original kinship between word and object. The word *corpus* (body) was related to the phrase *corruptis perit* since our body continues into putrefaction; the word *homo* (man) had its origin in *humus* (earth) because man was created out of the dust of the earth; whereas *agnus* (lamb) was derived from *agnoscit* (to recognize) because the lamb recognizes its own mother.²²⁶ As Marian Rothstein remarks: “For Isidore *res* and *verba* can be treated as one: an etymology is the explanation of the origin and hence the inherent qualities of a thing. His underlying assumption is that the truth (the eutomon) is a guide to the essence of the thing.”²²⁷

Thus, biblical historiography and the metaphysics inherited from Plato laid the foundation for a set of assumptions about the nature of language which made it possible to lay bare the inherent properties of

²²⁶ Isidore, *Etymologiarum*, IX.1.4-9; XI.1.14; I.28.3; XII.1.12. Cf. III.4, where Isidore acknowledges Hebrew as the actual primordial language.

²²⁷ Rothstein, “Etymology, Genealogy, and the Immutability of Origins”, p. 333. For a discussion of the medieval use of etymologies and its dependence on the biblical account of Adam’s naming of the animals, see Bloch, *Etymologies and Genealogies*, especially pp. 30-63.

things through linguistic exegesis.²²⁸ Embedded in this conceptual and narrative framework, language appeared as the mirror of nature, providing a means by which man could interpret the physical world. The underlying assumption was that nature itself was a reflection of the *verbum Dei*, the divine force from which the essences of natural things ultimately stemmed. Language and nature could be attributed equal ontological status precisely because they were both symbolic expressions of the principles in the divine Mind. Like the holy Scripture, the Book of Nature was a text whose true meaning — the Word — could only be uncovered by making it subject to the proper exegetical techniques.

The Word of God and the Book of Nature

The idea that nature constituted a “text”, declaring God’s Word as eloquently as Scripture itself, was a concept closely bound up with the particular cosmology that prevailed in the Christian world from the early Middle Ages to well into the seventeenth century. This cosmology was essentially a synthesis of the metaphysics of Plato and Aristotle, merging the Platonic concept of an intelligible world of Ideas with the Aristotelian notion of the cosmos as a hierarchical structure in which “inferior” spheres were ruled by “superior” ones.²²⁹ The resulting synthesis was a universe structured as an emanation: from the eternally unchangeable Ideas in the divine Mind, a series of hierarchically organized levels flowed forth, every level being of a more corruptible and material character than its preceding, superior one. This cosmic hierarchy was commonly presented as divided into three distinct spheres; the earthly, the celestial, and the spiritual or supra-celestial (fig. 5). But by constituting parts of an emanative chain,

²²⁸ It should, of course, also be borne in mind that the Adamic narrative could be interpreted as a symbolic rather than a historic account and hence be viewed as irrelevant to language philosophy. This position is exemplified by Lorenzo Valla (c. 1407-1457), who in his *De linguae Latinae elegantia* (1471) scoffed at Isidore of Sevilla — “Hisidorus indoctorum arrogantissimus” — and his quaint etymologies. For a survey of Valla’s linguistic theory, see Waswo, “The ‘Ordinary Language Philosophy’ of Lorenzo Valla”. See also Padley’s *Grammatical Theory in Western Europe* for a comprehensive survey of this “humanistic” tradition of linguistics.

²²⁹ The latter notion is clearly expressed in Aristotle, *Metaphysics*, XII.5-XII.8 [1071b-1074b], pp. 139-163.

every sphere was also linked to its ultimate cause, the Word. As Giambattista della Porta (1535-1615) wrote:

Thus hath the providence of God linked things together in their rankes and order, that all inferiour things might by their due courses be derived originally from God himself, and from him receive their Operations. [...] [T]he superior power cometh down even from the very first cause to these inferiours, deriving her force into them, like as it were a cord platted together, and stretched along from heaven to earth, in such sort as if either end of this cord be touched, it will wag the whole; therefore we might call this knitting together of things, a chain...²³⁰

Due to the doctrine of emanation, Plato's rigorous distinction between the intelligible and material worlds broke down and was replaced by a "Great Chain of Being", linking heaven to earth.²³¹ This cosmological scheme implied a correspondence between the different levels in the hierarchy of being. "[W]hatever is in the lower world is also in the higher ones, but of better stamp", wrote Pico della Mirandola; "likewise, whatever is in the higher ones is also seen in the lowest, but in a degenerate condition and with a nature one might call adulterated".²³² As a consequence, the cosmos was, in the full sense of the word, *symbolically* structured. As physical expressions of the creative Word, natural entities were not merely material objects: they were, as Johannes Reuchlin (1455-1522) wrote, "copies of truths, shadows of things above, pictures, signs, marks or symbols" of the "incorporeal essences [and] divine patterns" enclosed in the divine Mind, "the seal from which this world is pressed".²³³

The symbolic character of nature, a notion sanctioned by the Holy Scripture itself,²³⁴ was a recurrent theme in Christian thought.

²³⁰ della Porta, *Natural Magic*, pp. 7-8.

²³¹ For discussions of the notion of the "Great Chain of Being" in various contexts, see Kuntz and Kuntz (eds.), *Jacob's Ladder and the Tree of Life: Concepts of Hierarchy and the Great Chain of Being*.

²³² Pico della Mirandola, *Heptaplus*, p. 77.

²³³ Reuchlin, *On the Art of Kabbalah*, pp. 102/103, 144/145.

²³⁴ A common reference was to Romans 1:20-21: "Invisibilia enim ipsius, a creatura mundi, per ea quae facta sunt, intellecta, conspiciuntur: sempiterna quoque eius virtus, et divinitas: ita ut sint inexcusabiles. Quia cum cognovissent Deum, non sicut Deum glorificaverunt, aut gratias egerunt: sed evanuerunt in cogitationibus suis, et obscuratum est insipiens cor eorum", in King James' version rendered as "For the

In *De doctrina christiana* Augustine stressed that “in this mortal life we are like travellers away from our Lord”, and if we wish to return to God we must use this world in order “to ascertain what is eternal and spiritual from corporeal and temporal things”.²³⁵ Augustine’s view is echoed in Johannes Scotus Eriugena’s (810–877) famous remark that “there is no visible or corporeal thing which is not the symbol of something incorporeal and intelligible”,²³⁶ and, six centuries later, in Pico della Mirandola’s assertion that the “visible signs of nature” can “show us the invisible things of God”.²³⁷

The conception of nature as a manifestation of the divine Word made the “Book of Nature” one of the most widely used metaphors in Christian thought and literature, repeated and elaborated *ad infinitum* by poets, clergymen and philosophers alike.²³⁸ A typical example is Edward Topsell’s introductory remark in *The Historie of Fovre-Footed Beastes* (1607) that the study of the natural world lays bare “that Chronicle which was made by God himselfe, every living beast being a word, every kind being a sentence, and all of them together a large history, containing admirable knowledge & learning...”²³⁹

The recurrent use of this metaphor in the most varied contexts should not tempt us to treat it as a mere figurative expression, however. In viewing nature as an expression of the divine Word, early modern scholars treated natural philosophy and theology as complementary and mutually dependent disciplines. The trope acted as a medium of meaning between these discursive domains, investing natural philosophy with religious meanings and fostering interpretive

invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal Power and Godhead; so that they are without excuse: Because that, when they knew God, they glorified him not as God, neither were thankful; but became vain in their imaginations, and their foolish heart was darkened.”

²³⁵ Augustine, *De doctrina christiana*, I.9, p. 17.

²³⁶ Eriugena, *Periphyseon* (*The Division of Nature*), 5.3, p. 529.

²³⁷ Pico della Mirandola, *On the Dignity of Man*, p. 14.

²³⁸ For a classic account of the use of this metaphor in medieval and early modern literature, see Curtius, *Europäische Literatur und Lateinisches Mittelalter*, especially pp. 323–329. A useful introductory discussion of this notion and its relation to what in the absence of an English term might be called “Sprachtheologie” is Hans Aarsleff’s unpublished lectures *Language, Man and Knowledge in the Sixteenth and Seventeenth Century* (London, The Warburg Institute).

²³⁹ Topsell, *The Historie of Fovre-Footed Beastes*, ‘The Epistle Dedicatory’, fols. 3^v–3^v.

approaches to nature influenced by the exegetical techniques applied to the Scriptures.

The complementary relationship between Scripture and nature is a common theme in early modern natural philosophy. God, wrote Thomas Tymme, “hath set before our eyes two most principall Bookes: the one of Nature, the other of his written Word”, both of which had been granted us so that we might gain knowledge of their omnipotent Author. Like Scripture, natural philosophy served “to allure to the contemplation of that great and incomprehensible God”. Indeed, if “man had not sinned, the Booke of *Nature* would haue sufficed to haue kept him alwaies in the knowledge & obedience of God his Creator”, claimed Tymme; “For then he should himselfe haue carried that Booke whole & perfect, imprinted in his heart and minde”. But at the Fall, man’s soul had lost its original clarity; it had “fallen into a sinke of mire” where it had been “couered and compassed about with thicke mistes and obscure darknesse”. Hence, man was in need of “another new light brought to vs from Heauen, not naturall, as the first, but supernaturall. For this cause God hath giuen vs his sacred Booke...”²⁴⁰ But if the Scriptures were revealed to man in order to restore the knowledge he had lost by the Fall, so was nature a text which could help us interpreting the Bible. “Surely”, Edward Topsell argued, God saved the creatures from the Flood “for that a man might gain out of them much Divine knowledge, such as is imprinted in them by nature, as a type or spark of that great wisdom whereby they were created”.²⁴¹

By embedding natural philosophy in the biblical narrative of Adam’s wisdom, the Fall and the Flood, scholars strengthened the ties between theology and the natural sciences which had their conceptual foundation in the *logos* doctrine. This narrative also gave the pursuit of knowledge a particular direction and meaning: the scientific study of the world became a means by which man could regain Adam’s lost wisdom and once again become that true *imago Dei*, perfect in knowledge and understanding. Such a perfect knowledge, however, could only be gained when Scripture and nature — God’s Word and God’s Work — were read conjointly. “We must lay before our eyes two bookes which God hath given unto us to instruct us by, and to lead us to the knowledge of himselfe”, wrote Pierre de la Primaudaye;

²⁴⁰ Tymme, *A Dialogue Philosophicall*, sigs. A3^r-A4^r.

²⁴¹ Topsell, *The Historie of Foure-Footed Beastes*, ‘The Epistle Dedicatory’, fol. 2^v.

Fig. 6. The “Christian philosopher” who reads both the Holy Scripture the Book of Nature. From George Hartgyll, *Generall Calendars*, 1594, frontispiece.



“namely the booke of nature, and the booke of his word, which we must ioynne both together...”²⁴²

This complementary relationship between Scripture and nature was strikingly illustrated in the *Generall Calendars* (1594) of George Hartgyll, a professional astrologer who, significantly, styled himself a “minister of the Word of God”.²⁴³ Holding the Scriptures and an armillary sphere symbolizing God’s creation in his hands, the “Christian philosopher” gazes towards the heavens while proclaiming *Verbum, & Opera Iehouae Meditabor* — “I shall contemplate the Word and Work of Jehova” (fig. 6).

John Dee: nature, language and the Word of God

George Hartgyll’s illustration of the “Christian philosopher” who reads nature as a text written by the finger of God and regards the Scriptures as a consummate reflection of reality could have been an apt portrait of his contemporary John Dee. Like Hartgyll, Dee was a practising astrologer who in his *Mathematicall Praeface* scolded those

²⁴² La Primaudaye, *The second part of the French Academie*, p. 12. La Primaudaye’s monumental encyclopedia *L’Academie Françoise* was published in the original French between 1577 and 1608/9. For a brief discussion of the work, see Yates, *The French Academies of the Sixteenth Century*, pp. 123-127.

²⁴³ Hartgyll, *Generall Calendars*, frontispiece.

who “looke upon the *Heaven*, *Sterres*, and *Planets*, as an Oxe and an Asse doth”. God, he emphasized, made the heavenly bodies “for *Signes*” — “I wish, euery man should way this word, *Signes*” — and he quoted the well-known words of the Scripture: “The Heavens declare the Glorie of God: who made the Heavens in his wisdom ... Day to day uttereth talke: and night, to night declareth knowledge. Prayse him, all ye *Sterres*, and *Light*. Amen.”²⁴⁴ Astronomy, Dee explained, “was to vs, from the beginning commended, and in maner commaunded by God himselfe” and the “*Signes*” of heaven gave us knowledge of more than the seasons and of the “*Distinctions of Dayes*, and *yeares*”. Above all, astronomy was an art devoted to reading “the Record of the heauenly booke, wherein all times are written”, a book yielding knowledge of “Sacred Prophetes, accomplished in due time, foretold...”²⁴⁵

In Dee’s remaining books we find numerous annotations bearing witness to his interest in the prophetes proclaimed by the “heavenly booke”. In his copy of the *Astronomica* of Manilius we find a personal note next to a passage explaining how the constellation of Cassiopeia “bids men look for gold beneath the ground, uproot all which nature stealthily conceals, and turn earth upside down in search of gain”. In the margin Dee has carefully noted:

The finding of the Gold Mine 1574 and 1576 after the strange star in Cassiopeia appearing ... I did coniecture the blasing star in Cassiopeia appering a° 1572, to signify the fynding of some great Thresor or the philosophers stone ... This I told to Mr. Ed. Dier. at the same tyme. How truly it fell out in a° 1582 Martij 10 [i.e. when he had the first angelic conversation with Edward Kelley acting as scryer] it may appere in tyme to come ad stuporem Mundi.²⁴⁶

²⁴⁴ Dee, *The Mathematicall Praeface*, sigs. b.ii.v, b.iii.j., quoting Psalms 19:1.

²⁴⁵ Dee, *The Mathematicall Praeface*, sig. b.ij.v.

²⁴⁶ London, University College Library, shelfmark Ogden A.9. [unpaginated]. I am following the English translation of Manilius’ *Astronomica* by G. P. Goold in my quotation, [523-530], pp. 342-345. Dee’s interest in the meaning of heavenly phenomena is also evident in his private diary, where he notes how he was summoned to the court to explicate the appearance of a comet to Queen Elizabeth (Dee, *The Private Diary*, p. 4). In his copy of Pliny’s *De mundi historia* he has made annotations on “*Questio de Significatione Cometarum*” (British Library, shelfmark C.107.d.22, fol. 93^v). See also his copy of Iamblichus’ *De mysteriis* (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage), fols. 10^{r-v};

The heavens were not only declaring the glory of God: they were declaring the glory of Dee, the Philosopher's Stone and the Elysian days that were at hand.

Dee's belief that the voice of God was speaking through the Book of Nature is underscored by the religious mood and continual evocation of scriptural phrases in his texts. In Dee's view, scriptural exegesis and natural science were indissolubly intertwined. "This is that, which in *Genesis* is called *Ha Rakia*", he remarked when calculating the size of the heavenly firmament: "Consider it well." A few lines later he went on to describe nature as a neglected source of knowledge of the holy Word, simultaneously stressing the significance of Scripture in the understanding of nature:

Well well, It is time for some to lay hold on wisdom, and to truly Iudge truly of thinges: and not so to expound the Holy word, all by Allegories: as to Neglect the wisdom, powre and Goodnes of God, in, and by his Creatures, and Creation to be seen and learned. By parables and Analogies of whose natures and properties, the course of the Holy Scripture, also, declareth to vs very many Mysteries. The whole Frame of Gods Creatures, (which is the whole world,) is to vs, a bright glasse: from which, by reflexion, reboundeth to our knowledge and perseuerence, Beames, and Radiations: representing the Image of his infinite goodnes, Omnipotency, and wisdom. And we thereby, are thought and persuaded to Glorifie our Creator, as God: and be thankfull therfore.²⁴⁷

In God's "Creatures and Creation" we could discern the faint but legible traces of the very wisdom proclaimed in the biblical text. By studying nature, this "bright glasse" reflecting the image of God, man could "truly Iudge truly of thinges" — things whose true natures and properties were also revealed in the "parables and Analogies" of the Scriptures.

When Dee in the 1590s directed a passionate appeal to the archbishop of Canterbury, beseeching him to defend him against the

and his note "Mirabilis Cometa apparuit in Cassiopeia" on the titlepage of Johannes Trithemius' *De Septem Secundeis* (Cambridge University Library, shelfmark Dd*.4.5¹¹(E)).

²⁴⁷ Dee, *The Mathematicall Praeface*, sig. b.ij.^r. On the term "Ha Rakia", cf. Reuchlin, *On the Art of the Kabbalah*, p. 342/345.

malicious rumours surrounding his work, he pointed out that he had always followed “the true, straight, and most narrow path, leading all true, devout, zealous, faithfull, and constant Christian students, *ex valle hac miseriae, & miseria istius vallis ... ad montem sanctum Syon, & ad coelestia tabernacula*” — “from this valley of misery and the misery of this valley ... to the holy mount Zion and the heavenly tabernacles”. This pilgrimage towards the spiritual spheres, he claimed, had been achieved

by the true Philosophical method and harmony proceeding and ascending, (as it were) *gradatim*, from things visible, to consider of things invisible: from things bodily, to conceive of things spirituall: from things transitory, and momentary, to mediate of things permanent: by things mortall (*visible* and *invisible*) to have some perseverance of immortality.²⁴⁸

And yet, however fair this declaration might have been as a characterization of Dee’s approach to the natural sciences, the claim was a half-truth at best. For at the core of Dee’s spiritual pilgrimage lay his attempts to uncover a language which could yield perfect knowledge of creation and Creator alike, a language which transcended the symbolic character of both nature and Scripture, enabling man to unveil the Wisdom concealed under their visible surface.

The narrative of Adam’s prelapsarian wisdom and language had an important role in Dee’s angelic conversations in the 1580s. Framed by this narrative, his attempts to recover the original tongue of mankind gained importance and legitimacy as a means to knowledge of both nature and divinity. Tutored by the angels to understand, speak, and even write this language in the original “Adamicall” letters (fig. 7), Dee was hoping to master the one true language in which the words expressed the very essence of the things they named. “Every Letter signifieth the member of the substance whereof it speaketh”, the archangel Gabriel explained to his two devotees; “Every word signifieth the quiddity of the substance”.²⁴⁹ Sometimes,

²⁴⁸ Dee, *A Letter, containing a most brief discourse apologeticall*, p. 72.

²⁴⁹ Dee, *A True & Faithful Relation*, p. 92. The term “quiddity”, derived from the Latin *quid*, was commonly used to denote the essence of an object. Thomas Aquinas writes: “since that by which a thing is constituted in its proper genus or species is what is signified by the definition expressing what the thing is, philosophers have taken to using the word quiddity for the word essence. The Philosopher frequently calls this the what a thing was to be, in other words, that by which a thing is a

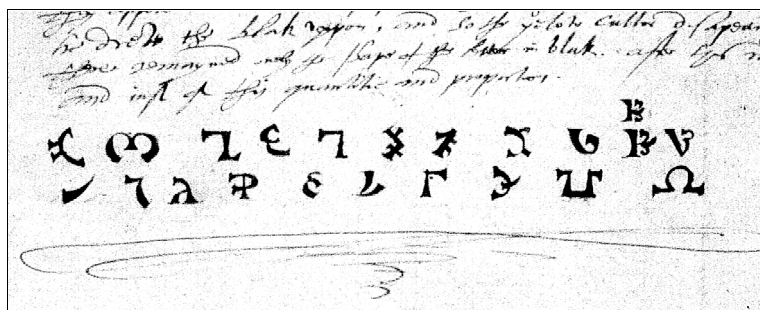


Fig. 7. The “Adamicall Alphabet”. The British Library, MS Sloane 3188, fol. 104r. Reproduced by permission of the British Library.

however, the angels seem to suggest that the “Adamicall speeche” was not merely a “natural” tongue which mirrored the essential nature of things, but *the* very Language itself — the creative Word of God. “Beholde, Beholde”, they proclaimed when first introducing the tables of letters; “yea let heaven and earth behold: *For with this they were created: and it is the voyce and speche of him, which proceded from the first, and is the first ...* And it is Truth; Whose truth shall endure for euer” — “Beasts, birds, fowle and fish do all reuerence to it. *In this they were all Created.* In this, is all things containyd.”²⁵⁰ By forming “proper words” from the individual letters presented in these tables, Dee would be able to reconstruct a language that was

signifying substantially the thing that is spoken of in the center of his Creator, whereby even as the minde of man ... is *easily perswaded in things that are true*, so are the creatures of God stirred up in themselves, *when they hear the words wherewithal they were nursed and brought forth.*²⁵¹

Appropriately, the volume in which the tables of letters were collected — a volume “sometimes called liber Creationis & sometimes Tabulae Creationis”, as Dee remarked — was formally entitled *Liber Logaeth* by the angels: “The Book of the Speech of God”.²⁵²

The apparent lack of a clear distinction between the divine Word and the Adamic tongue was by no means unique to Dee’s an-

what.” (Aquinas, *On Being and Essence*, pp. 27-28).

²⁵⁰ Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 234-235, 65.

²⁵¹ Dee, *A True & Faithful Relation*, p. 92.

²⁵² Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 189; Dee, *A True & Faithful Relation*, p. 19.

gelic conversations, and in later chapters we shall see how this conceptual indistinctness played an important role in the kabbalistic tradition. Ultimately, however, it was a consequence of the metaphoric nature of the *logos* concept. The Christian notion of the Word was conceptually structured around the tripartite meaning of the Greek term *logos*, signifying “reason” and “speech” as well as “word”. Due to this ambiguity, the divine Word was identical to both the eternal Wisdom of God, and the creative power “expressing” this Wisdom, manifesting it in symbolic form. The very same notion underlay the Christian conception of man. Created in the image and likeness of God, man not only bore a reflection of God’s Wisdom within his soul; he also possessed the power to express this Wisdom by means of speech. Thus the conception of man as an *imago Dei* implied that in his prelapsarian state, before the *deformatio* of God’s image in his soul, Adam had spoken a language that had been a *true* expression of the divine Wisdom, a perfect, undistorted reflection of the *verbum Dei*.

In situating human speech and God’s Word in a metaphoric relation to each other — that is, by defining and conceptualizing them in terms of each other — the *logos* doctrine also provided scope for viewing the Adamic language as a means by which man could regain his original likeness to God. Transcending the symbolic character of both nature and Scripture, it could give man a direct, unmediated insight into God’s Wisdom. As Johannes Reuchlin wrote in *De verbo mirifico* (1494), a work which Dee was familiar with, the Adamic tongue had been

a simple and pure speech, uncorrupted, holy, brief, and constant ... in which God and men, and men and angels could talk in each other’s presence, *not through interpretation, but face to face* ... just as usual between friends.²⁵³

The metaphor of seeing God “face to face” — an allusion to the well-known words of Saint Paul, “for now we see through a glass,

²⁵³ Reuchlin, *De verbo mirifico*, sigs. c5^v-c6^r: “simplex autem sermo purus, incorruptus, sanctus, brevis et constans ... quo deus cum homine, & homines cum angelis locuti perhibentur coram & non per interpretem, facie ad facie ... sed sicut solet amicus cum amico”. *De verbo mirifico* is listed in Dee’s library catalogue of 1557 (Roberts and Watson, *John Dee’s Library Catalogue*, no. B25) and is one of the few early modern works he refers to in the angelic diaries; see Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 31-32.

darkly; but then face to face”²⁵⁴ — was intimately linked to the notion of man’s coming redemption or “reformation”, when the image of God in our soul would be restored into its original clarity. The recurrent use of this metaphor in the context of the Adamic language indicates a common belief in the redemptive properties of the prelapsarian tongue. According to Robert Wakefield, man’s primordial tongue had been a language in which “God spoke to the fathers *panim ’el panim*, that is, ‘face to face’, openly and not in riddles”.²⁵⁵ By recovering this language man would no longer be doomed to see God *per speculum in aenigmate*, through symbols and interpretation. Instead, he would see Him “as He is”, unveiled and exposed to human comprehension.

Needless to say, Dee must have regarded the recovery of the “Adamicall speeche” as the ultimate achievement of his career, an achievement which would have had enormous philosophical, religious, social and personal implications should his hopes have come true. Yet there are sufficient parallels between the angelic conversations and his earlier *Monas hieroglyphica* to suggest that the conceptual framework underlying the Monas symbol consisted of a similar set of metaphoric associations between language, nature and the Word. These associations stand out clearly in the preface to the work, addressed to Emperor Maximilian II. Citing grammar among the disciplines elucidated by the Monas symbol, Dee remarked that the “very solid foundations” of this art “lie in the sacred scriptures of God Almighty”.²⁵⁶ Whatever Dee had in mind when making this statement, however, it had little in common with traditional grammar. The only explicitly linguistic issue he treats in the text is the origin and shape of the letters. By contemplating the Monas symbol, one would find proof that “the first and mystical letters of the Hebrews, the Greeks, and the Latins, issued from God alone and were [by Him] entrusted to the mortals”.²⁵⁷ Created by God according to certain divine geometrical principles, these three alphabets contained truly remarkable secrets, essential to our understanding of both nature and Scripture. Addressing the emperor directly, Dee stated that there

²⁵⁴ 1 Corinthians 13:12: “Videmus enim nunc per speculum in aenigmate, tunc autem facie ad faciem”. See also Genesis 33:10, Exodus 33:11 and Judges 6:22.

²⁵⁵ Wakefield, *On the Three Languages*, pp. 180/181.

²⁵⁶ Dee, *Monas hieroglyphica*, pp. 124/125.

²⁵⁷ Dee, *Monas hieroglyphica*, pp. 126/127.

was no reason to be astonished at the claim that “the science of the alphabet contains great mysteries”, for

He, who is the only author of all mysteries, has compared Himself to the first and last letter (which is to be understood not only for the Greek language, but also for the Hebrew and Latin ones, as can in various ways be proved by that art). How great, then, must be the mysteries of the intermediate [letters]?

And it is not surprising that this [mystery, i.e. the Monas symbol] should be so constituted in letters [*in literis sic constare*]; for all things visible and invisible, manifest and most occult, emanating (through nature or art) from God Himself, are to be most diligently explored in our wanderings [through the symbol], so that thereby we may proclaim and celebrate His goodness, His wisdom, and His power. Paul taught, therefore, that mankind would be deprived of all excuse [for not doing so], even if it had no other written memorial of these [truths] than that which from the Creation has been inscribed by God’s own finger on all creatures.²⁵⁸

The paragraph is in a sense typical of early modern occult discourse in that it conflates different levels of meaning and presents scriptural imagery as statements of literal truth. With the words “I am Alpha and Omega, the beginning and the ending”,²⁵⁹ the Lord had not only expressed his consummate power and presence in an ornate parable; he had revealed that the letters of the alphabet literally contained a wealth of knowledge by reflecting, in their very graphical design, His Wisdom. And as this divine Wisdom was also “inscribed by God’s own finger on all creatures” — an allusion to Saint Paul’s words, “the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made”²⁶⁰ — language and nature constituted each other’s mirror images. By accurately representing those geometrical principles which underlay both natural phenomena and the letters of the alphabet, the Monas symbol could shed light on “all things visible and invisible, manifest and

²⁵⁸ Dee, *Monas hieroglyphica*, pp. 124/125.

²⁵⁹ Revelation 21:6. Cf. Revelation 1:8, 22:13.

²⁶⁰ Romans 1:20.

most occult, emanating (through nature or art) from God Himself'. Indeed, by contemplating this symbol, Dee claimed, one would find "conclusive proofs" that "the logos of the creative universe works by rules so that man, godly-minded and born of God, may learn by straightforward work and by theological and mystical language".²⁶¹

²⁶¹ Dee, *Monas hieroglyphica*, pp. 198/199-200/201.

The wisdom of the ancients and the unity of knowledge

However, despite the numerous parallels between the Monas symbol and the “Adamicall speeche”, these two languages were of a decidedly different character. As a symbolic representation of the principles of creation, based on the common alchemical and astronomical symbols, Dee’s “hieroglyphical writing” could claim neither the antiquity nor the perfection of the Adamic tongue. In the text, Dee is surprisingly vague regarding the provenance of the Monas symbol, leaving it undecided whether he was the first to conceive the symbol or whether it had been known in ancient times but since then “wholly wiped out from the memory of men”.²⁶² Yet it is clear that he viewed it as a means by which an ancient wisdom, since time immemorial lost to mankind, could be restored to its former perfection. Although he had not relied “on any human authority”, he wrote, the symbol would shed light on “some notable sayings or writings of very ancient philosophers; so, for instance, with regard to certain mysteries of Hermes, Ostanes, Pythagoras, Democritus, and Anaxagoras”.²⁶³

The notion of a “perennial philosophy”,²⁶⁴ a consummate wisdom which the ancient sages had once been in possession of but since then had been lost to mankind, is a common theme in Renaissance scholarship. The Calvinist scholar Michel Servet summarized it in a succinct paragraph:

From all eternity were in God images or representations of all things, in His Wisdom, truly shining forth in the Word itself of God, as in the archetypal world. [...] This was from the beginning of the world the received doctrine about the Wisdom of God, published in the Holy Scriptures, and taught to the Greeks by the Chaldeans and Egyptians from the tradition of their ancestors ... Zoroaster and Trismegistus taught it, from whom, chiefly from Trismegistus, all the Greeks learnt it, from Orpheus to Plato.²⁶⁵

²⁶² Dee, *Monas hieroglyphica*, pp. 122/123.

²⁶³ Dee, *Monas hieroglyphica*, pp. 138/139-140/141.

²⁶⁴ As I want to include texts attributed to biblical characters, such as Solomon and Enoch, in this tradition, I am deliberately eschewing the term *prisca theologia*, or “ancient theology”, which generally refers to the pagan tradition of knowledge.

²⁶⁵ Servetus, *Christianismi Restitutio* (1553), as quoted and translated in Walker, “The Prisca Theologia in France”, p. 249. For a fuller account of this notion, see

Thus, God's Wisdom had not only been granted to those peoples who lived according to Scripture. Revealed to ancient sages long before the Holy Bible was written down by Moses, the Word had been known even by the pagans and handed down from generation to generation, from the Chaldeans and the Egyptians to the venerable Greek philosophers.

This belief in a perennial philosophy was of tremendous consequence to the culture of erudition in the Renaissance. Framed in this cultural narrative, pagan and classical philosophy could be viewed as reconcilable with Christian doctrines, carrying an authority that was verging on the biblical. Sages like Hermes, Zoroaster and Plato had all striven to express a knowledge which in its primordial condition had been identical to the Word. The myth of a perennial philosophy was also an important factor behind the syncretistic approach to textual interpretation. As more or less adulterated renditions of an originally unified knowledge, divergent philosophical accounts could be read as reconcilable in meaning, if not in terminology. Hence, the belief in the wisdom of the ancients laid the foundation for a "bookish culture", focused on ancient texts and their interpretation as a means to gain access to the Word.

Though the notion of a perennial philosophy is often associated with the revival of Platonic philosophy in the Renaissance, it also played a prominent role in both medieval scholasticism and in Renaissance Aristotelianism.²⁶⁶ Given the significance Dee attributed to the works of his compatriot Roger Bacon (c. 1220-1292), his adherence to this notion might indeed have owed more to medieval scholarship than to contemporary historiography. When Dee's interest in Bacon was first aroused is unclear, but as early as 1557, at the academically tender age of thirty, he had sufficient knowledge of Bacon's works to write a text in his defence, the *Mirror of Unity, or an Apology for the Englishman Roger Bacon*. As the work is lost we have no real knowledge of its contents, but according to the subtitle it was an attempt to prove that Bacon "did nothing by the aid of demons but

also his classic study *The Ancient Theology*.

²⁶⁶ The former view is largely due to Walker's *The Ancient Theology*, which focuses on how Renaissance Platonists used the *prisca theologia* tradition to support their claim that Platonism was reconcilable with Christian doctrine. Though acknowledging its prevalence in patristic writings, Walker tends to ignore its role in medieval and Aristotelian thought. See especially see pp. 1-3 and 10-12 for illustrative statements. Cf. Schmitt, *Aristotle and the Renaissance*, pp. 95-97.

was a great philosopher and accomplished naturally and by ways permitted to a Christian man the great works which the unlearned crowd usually ascribes to the acts of demons".²⁶⁷ In the sixteenth and seventeenth centuries, Bacon's name was commonly associated with esoteric arts such as magic and alchemy, gaining him a tarnished reputation as a "juggler and necromantic mage" who had performed his legendary deeds "not by the power of God but by operation of evil spirits".²⁶⁸ Whatever Dee's reasons for taking an interest in Bacon's philosophy, he was not, however, merely intent on rehabilitating his reputation. In *Propaedeumata aphoristica* he relied heavily on Bacon's works when describing how the effects of celestial influences could be calculated mathematically.²⁶⁹ Collecting virtually all of Bacon's texts, most of them existing only in manuscript, Dee seems to have considered himself the heir of this "floure of whose worthy fame, can never dye nor wither".²⁷⁰ Indeed, in a supplication to Queen Elizabeth he even suggested a distant consanguinity to the medieval scholar, claiming that Bacon had been known as "David Dee of Radik" before he took the Franciscan vows.²⁷¹

²⁶⁷ This title is given in the list of unpublished works included in *Propaedeumata aphoristica*, pp. 116/117: *Speculum unitatis: sive Apologia pro Fratre Rogerio Bachone Anglo, in quo docetur, nihil illum per Daemoniorum auxilia fecisse, sed Philosophum fuisse maximum: naturaliterque, & modis homini Christiano licitis, maximas fecisse res: quas, indoctum solet vulgus in Daemoniorum referre facinora.*

²⁶⁸ John Bale (1495-1563), as quoted in Molland, "Roger Bacon as Magician", p. 447. As late as 1659, the translator of Bacon's *Epistola de secretis operibus artis et naturae* remarked that "Bacon's name may bring at the first an inconvenience to the book" (Bacon, *Frier Bacon His Discovery of the Miracles of Art, Nature, and Magic*, sig. A2').

²⁶⁹ Bacon's influence on Dee is an all-pervading theme in Clulee's study *John Dee's Natural Philosophy*. Though I am reluctant to accept Clulee's interpretation of the *Propaedeumata aphoristica* as based almost exclusively on Bacon's physics, an interpretation which suppresses the Neoplatonic elements in the text (discussed below in part III), it is clear that Bacon held an important position in Dee's conception of philosophy. An illustrative example is his lengthy homage to Bacon's works in "A Playne discourse and humble advise ... concerning the needfull Reformation of the Vulgar Kalender" (Oxford, Bodleian Library, MS Ashmole 1789), pp. 50-58.

²⁷⁰ Dee, *The Mathematicall Praeface*, sig. A.iiij.^v. Dee's library catalogue lists some sixty works attributed to Bacon, the majority in manuscript, including *Opus majus* (nos. M149, DM29) and *Opus tertium* (no. M26).

²⁷¹ Dee, "A Playne discourse" (Oxford, Bodleian Library, MS Ashmole 1789), p. 50.

An important feature in Bacon's philosophy was the authority he attributed to the ancients. Relying on patristic writers, he delineated a history of knowledge remarkably similar to the Renaissance notion of a *philosophia perennis*: "the full measure of philosophy was given to ... the holy patriarchs and prophets from the beginning of the world". From the sons of Seth, who lived for six hundred years "in order that they might know by experience through the length of their life what God revealed to them", this knowledge had been handed down from generation to generation. Noah and his sons had taught the Chaldeans, Abraham had taught the Egyptians, Moses had been taught by the Egyptians, from whose wisdom the Greeks had developed their philosophy.²⁷²

A prominent position in this historiography of knowledge was attributed to the scholastic Philosopher *par excellence*, Aristotle. Not only had Aristotle "restored the knowledge of the ancients and brought it to light"²⁷³; in the text *Secretum secretorum*, commonly attributed to Aristotle by medieval scholars and one of the most widely read works in the Middle Ages, Bacon found proof that the Philosopher had dealt with a number of "esoteric" disciplines excluded from the scholastic curriculum: astrology, alchemy, magic and numerology. All were disciplines that had been revealed to the ancient sages and restored to posterity by Aristotle.²⁷⁴

Bacon's encounter with *Secretum secretorum*, a text that contained "the greatest natural secrets to which man or human invention can attain in this life",²⁷⁵ had a profound influence upon his philosophical approach. Henceforth he aspired to lay the foundation for a far-reaching reform of scholastic philosophy, ultimately aimed at restoring knowledge to its primordial perfection.²⁷⁶ What Bacon tried to conceive was an *integritas sapientiae*, a unified system of thought which included all scientific disciplines while simultaneously having

²⁷² Bacon, *The Opus Majus*, I, pp. 52-68. For a similar account, see also his *Opus tertium*, pp. 79-83.

²⁷³ Bacon, *The Opus Majus*, I, p. 129.

²⁷⁴ For discussions of this work and its provenience, see Ryan and Schmitt (eds.), *Pseudo-Aristotle — The Secret of Secrets: Sources and Influences*. One of Dee's several copies of this work is now at Cambridge University Library, shelfmark N*.13.6 (F).

²⁷⁵ Bacon, *Secretum secretorum cum glossis et notulis*, p. 1: "ultima nature secreta ad que homo sive humana invencio in hac vita poterit pervenire".

²⁷⁶ On the influence of *Secretum secretorum* on Bacon, see Easton, *Roger Bacon and his Search for a Universal Science*, especially pp. 73-80.

“the moral and religious purpose of improving human life in this world through the practical utility of the sciences and of leading to salvation through a knowledge of God”.²⁷⁷

A central element in Bacon’s proposed reform was his concept of *scientia experimentalis*, a term that is best rendered as “science of experience” as it had little in common with our modern conception of experimental science. In Bacon’s view, *scientia experimentalis* was based on two distinct kinds of experience: sensual perception and divine illumination. By means of the external senses, Bacon stated, man gains experience of both the heavens and the earth. But since empirical knowledge “does not touch at all on things spiritual” it was insufficient in itself, “and for this reason the holy patriarchs and prophets, who first gave sciences to the world, received illumination within and were not dependent on sense alone”.²⁷⁸ In attaching equal significance to divine illumination and empirical knowledge, Bacon not only sought to dissolve the disciplinary boundary between natural philosophy and theology; he could also include a range of occult sciences, aimed at manipulating forces that were imperceptible to the external senses, in his unified system of knowledge. Revealed by God to the ancient magi, these arts had once been an integral part of that unified wisdom he aspired to restore to its original perfection.

As Nicholas Clulee has noted, it is possible that the title of Dee’s lost apology for Bacon, the “Mirror of Unity”, was a deliberate allusion to Bacon’s notion of an *integritas sapientiae*.²⁷⁹ Like Bacon, Dee also regarded divine illumination as an important source of knowledge and in *Monas hieroglyphica* he assumed the role of an enlightened sage, claiming that the “Spirit of Jesus Christ” was writing through him and that he was the one “to whom God gave the will and the ability thus to record this divine mystery in a written memorial...”²⁸⁰ Though this notion had support in a wide variety of sources, his indebtedness to Bacon is indubitable in his account of “archemastrie” in the *Mathematicall Praeface* (1570). Dee’s account of this enigmatic art is elusive, but it is clear that he regarded archemastrie as the sovereign science, which both certifies all other sciences by

²⁷⁷ Clulee, *John Dee’s Natural Philosophy*, p. 125. See also Easton, *Roger Bacon and his Search for a Universal Science*, especially pp. 172-180.

²⁷⁸ Bacon, *The Opus Majus*, II, p. 585.

²⁷⁹ Clulee, *John Dee’s Natural Philosophy*, p. 126.

²⁸⁰ Dee, *Monas hieroglyphica*, pp. 200/201, 218/219.

“actuall experience sensible” and extends their range of practical application, leading to the “chief and finall power of Naturall and Mathematicall Artes”. As Dee writes, it “procedeth by *Experiences*, and searches forth the causes of Conclusions, by *Experiences*: and also putteth the Conclusions them selues, in *Experience*”, and might therefore be called “*Scientia Experimentalis*”. Dee’s archemastrie was in fact closely modelled on Bacon’s conception of *scientia experimentalis*, which he explicitly referred to and discussed in this context. In compliance with Bacon, Dee regarded this science as based on *experience* rather than on experiments and included occult arts such as talismanic magic and divination within its boundaries.²⁸¹

An interesting aspect of Dee’s dependence on Roger Bacon is the close parallels between Bacon’s conception of the *integritas sapientiae* and what Frances Yates called the “Hermetic world view”.²⁸² The importance that Bacon attached to the *prisca auctoritas* and the practical utility of arts, even esoteric ones, in this unified scheme of knowledge makes him a more likely source of Dee’s conceptions than the “Hermetic” texts, whose importance to Renaissance thought Yates greatly overstated. But nor should Bacon’s importance to Dee be overstated at the expense of other sources. Dee’s syncretistic approach to textual interpretation, as well as his belief in the fundamental unity of knowledge, makes the attempt to slot him into a particular philosophical school or tradition both impossible and pointless. Whatever importance Bacon’s philosophy might have had to Dee, it only had bearing on his own work as long as it was in compliance with his conception of the ancient wisdom.

In *Monas hieroglyphica*, Bacon’s influence is overshadowed by ideas the medieval scholar had no knowledge of, including hieroglyphics, kabbalah, and Pythagorean number symbolism. The underlying assumption of this work was that the traditional astrological/alchemical characters, the “hieroglyphic signs of the five planets”, were part of an ancient symbolic language once created by “the oldest wise men, the *magi*”. By conceiving a symbol which both incorporated these characters and restored them to those “mystical

²⁸¹ Dee, *The Mathematicall Praeface*, sigs. A.iiij.^{r-v}. For detailed discussions, see Clulee, “At the crossroads of magic and science: John Dee’s Archemastrie” and *John Dee’s Natural Philosophy*, pp. 170-175.

²⁸² For a discussion of these parallels, see Molland, “Roger Bacon and the Hermetic Tradition in Medieval Science”.

proportions" they had had "in an age long past" — or at least those which "our forefathers had wished" they should have "in the future" — Dee believed that he had found a unified expression encapsulating the entire knowledge of the ancients.²⁸³ The *monas* or "monad" in title of the work, which is derived from the Greek, meaning "unity", is in all probability a deliberately ambiguous allusion to the Neoplatonic conception of the One, the ultimate Godhead, and to the unity of knowledge expressed through the symbol.²⁸⁴

If Dee had a more detailed conception of the history of knowledge, he left it unexpressed in *Monas hieroglyphica*. Apart from his off-hand allusion to Adam's wisdom and Fall, which merely suggests that he shared the common belief in Adam's perfect knowledge of the world, there is no indication of how he conceived of the subsequent dispersion and deterioration of knowledge. When Thomas Tymme a few years before Dee's death planned an English translation of *Monas hieroglyphica* he obviously saw this as a serious omission, and introduced his commentary with a lengthy account of how the once perfect wisdom had been handed down to posterity. Before the Fall, Tymme explained, Adam had been "endowed with such excellent knowledge in naturall Philosophie" that he was able to give "all the Creatures of God their proper names, agreeing with their nature and kind". And although his knowledge "was much weakened by his fall", he was the "first founder and inventor of Arte", laying the foundation of all sciences known to mankind. After Adam's death his descendants had "erected two Tables of Stone" on which they engraved this knowledge, "not in letters (which was not then known) but in Hieroglyphicall characters". Tymme's account is vague regarding the subsequent fate of these stone tablets, only stating that Noah recovered one of them after the Flood. Over the centuries, however, the memory of Adam's "universall knowledge in natural Philosophie" had faded, causing the once unified wisdom to break down into separate disciplines. Simultaneously it had spread over the world, to Chaldea, Persia, and Egypt, where Moses had been taught the mysteries of the "Cabalisticall art", perhaps by the divine Hermes Trismegistus himself.²⁸⁵

²⁸³ Dee, *Monas hieroglyphica*, pp. 120/121, 160/161.

²⁸⁴ This is discussed in detail below, pp. 184-199.

²⁸⁵ Tymme, *A Light in Darkness*, pp. 11-15.

Although we cannot know whether Dee would have accepted Tymme's account, the broad outlines of the narrative must have been in agreement with his own conceptions. Like Tymme he regarded the occult arts, such as alchemy, magic, kabbalah and astrology, as an integral part of an ancient knowledge, hidden for posterity in the "hieroglyphic signs of the five planets" created by ancient sages. This narrative not only brought the unity of scientific knowledge into focus, but was also essential to legitimize the occult arts as conformable to Christian faith. When Dee in the *Mathematicall Praeface* defended the "marueilous Actes and Feates" accomplished by mechanical means against those who counted "all such Studies Philosophicall (as mine hath bene) to be vngodly, or vnprofitable", he invoked the scriptural examples of Moses and Daniel: "*Moses was instructed in all manner of wisdom of the Aegyptians: and he was of power both in his wordes, and workes.* You see this Philosophicall Power & Wisdom, which *Moses* had, to be nothing misliked of the Holy Ghost."²⁸⁶

The legitimizing function of biblical historiography stands out clearly in Dee's angelic conversations. When raising his prayers to God to send His good angels to instruct him, it was with the blatant ambition of taking a seat alongside the venerable biblical prophets: "Enoch enioyed thy favor and conversation, with Moyses thow wast familiar ... to Abraham, Isaac, and Jacob, Josua, Gedeon, Esdras, Daniel, Tobias, and sundry other, thy good Angels were sent, by thy disposition, to instruct them, informe them, help them..."²⁸⁷ Claiming to be a prophet equal to Moses, Enoch and Abraham was hardly uncontroversial, however, and the angelic conversations incurred both ridicule and dismay. During their sojourn in Prague, Dee and Kelley were contemplating making parts of their conversations public, both to refute those who considered them to be "overcredulous or doting fools who have been drawn or driven into error (a pleasant and alluring error so far) by some astute evil spirit making game of us", and to disprove those who maintained that "in our time and in the present condition of the world, all revelation by divine communication has ceased, and that no such revelation is made or no true prophesy given to mortals..."²⁸⁸ Naïve as it may seem, not to mention dangerous should they have carried it out, the plan to publish the angelic con-

²⁸⁶ Dee, *The Mathematicall Praeface*, sigs. A.j.^v, A.iiij.^r. Cf. The Acts 7:22.

²⁸⁷ Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 8.

²⁸⁸ Dee, *Praefatio Latina*, p. 227.

versations shows the strength of Dee's belief in the revelations — and in his own momentous role in Christian history.

The wisdom of the biblical prophets is a recurrent theme in the angelic conversations. As the angels repeatedly stressed, the secrets they were about to reveal to Dee and Kelley were identical to that wisdom once possessed by such ancient sages as Enoch, Elias and Solomon. Although the volume containing the tables of letters was formally entitled “*Liber Logaeth*” by the angels, it was also referred to as the “*Book of Enoch*” as it contained “that wisdom and science, with which Enoch (by God's will) was imbued”.²⁸⁹ Enoch's prominent role in the angelic conversations was lent credence by a generally accepted mythology borne out of the apocryphal bible texts. Whereas the authentic Greek and Ethiopian *Books of Enoch* did not become known in Europe until the middle of the seventeenth century, the Apocrypha contained numerous references to the “books” and “writings” of Enoch, which patristic writers commonly regarded as authentic but since long lost texts.²⁹⁰ According to the *Book of Jubilees* Enoch had been the first of mortals “who learnt writing and knowledge and wisdom and who wrote down the signs of heaven according to the order of their months in a book”. Illuminated by the light of God he “saw and understood everything ... he was moreover with the angels of God ... and they showed him everything”. Indeed, according to this text Enoch had been “taken from amongst the children of men, and we conducted him into the Garden of Eden”.²⁹¹

This tradition is explicitly echoed in the angelic conversations: “The Lord appeared unto *Enoch*, and was mercifull unto him, opened his eyes, that he *might see and judge the earth*, which was unknown to his Parents, by reason of their fall ... and lo, *Enoch* was wise, and full of the spirit of wisdom”.²⁹² But in attributing the invention of writing to Enoch, the Apocryphal tradition was also in open conflict with Plato's well-known account of how this art was first created by Hermes Trismegistus.²⁹³ As a consequence, it was not uncommon

²⁸⁹ Dee, *Praefatio Latina*, p. 249. See also *A True & Faithful Relation*, p. 196.

²⁹⁰ For a brief overview, see *The Apocryphal Old Testament*, ed. Sparks, pp. 169-179.

²⁹¹ *Book of Jubilees*, 4:17-24, in *The Apocrypha and Pseudepigraphia of the Old Testament*, ed. Charles. Cf. Hebrews 11:5: “By faith Enoch was carried away to another life without passing through death: he was not to be found, because God had taken him.”

²⁹² Dee, *A True & Faithful Relation*, p. 174.

²⁹³ Plato, *Phaedrus*, 274D, pp. 561-563; *Philebus*, 18B-C, pp. 225-227.

that Enoch and Hermes were identified as one and the same individual. In the pseudo-Aristotelian *Secretum secretorum*, for instance, Enoch/Hermes is portrayed as the very first of sages, the one who had recorded “all secret and celestial sciences” to posterity.²⁹⁴ Set by God’s angels to restore the lost “Book of Enoch”, Dee and Kelley would therefore come into possession of an ancient wisdom which would grant them true knowledge of God, as well as mastery over nature through the practical utility of arts:

Oute of this [book] *shall be restored the holy bokes, which haue perished euen from the begynning, and from the first that liued.* And herein shalbe deciphred perfect truth from imperfect falshode, *True religion from fals and damnable errors, With all Artes: which are propre to the use of man...*²⁹⁵

The historiographic background of Dee’s work thus played an essential role in shaping and defining his philosophical approach. Not only could his belief in the wisdom of the ancients legitimize his attempt to gain knowledge by divine mediation in emulation of the biblical prophets (that is, provided one accepted his assumption that God still intervened in human affairs); this historical myth also provided a narrative framework which both strengthened and defined the relations between nature, language and the Word. Though these relations had a metaphysical basis in the *logos* doctrine, it was through cultural narratives — such as those of Adam’s naming of the animals, the confusion of tongues and the perennial philosophy — that these relations could be construed in such a way that man could fathom nature through the medium of language. As James Bono writes, such narratives “sanctioned man’s ability to grasp the powers of nature by

²⁹⁴ Bacon, *Secretum secretorum cum glossis et notulis*, p. 99: “omnia sciencia secreta et celestis”. The notion that Hermes was identical to the biblical Enoch recurs in Petrus Bonus’ *Margarita pretiosa novella*, in Dee’s copy underlined and provided with the note “Enoch” in the margin. (London, Royal College of Physicians, shelfmark D 107/3, 7c, p. 111). See also his copy of Guillaume Postel’s *De originibus* in which he has marked references to Enoch and “libri Enoch” (London, Royal College of Physicians, shelfmark D 144/14, 21b, pp. 54, 59). That the “Books of Enoch” were commonly regarded as occult works is suggested by Reginald Scot’s remark that “Conjurers carrie about at this daie, bookes intituled under the names of Adam, Abel, Tobie, & Enoch; which Enoch they repute the most divine fellow in such matters.” (Scot, *The Discovery of Witchcraft*, XV.31, p. 262.)

²⁹⁵ Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 378.

permitting him, through language, special access to the revelations of the Word, the *verbum Dei*".²⁹⁶

Few early modern enterprises illustrate this as vividly as Dee's angelic conversations, in which the biblical accounts of Adam's prelapsarian wisdom, the Fall, the *confusio linguarum* and the wisdom of the prophets were crafted into a grand narrative which bolstered the attempt to gain knowledge through the recovery of the Adamic tongue. This language would not only yield perfect knowledge of nature and God, but would also make it possible to restore the lost books from which the whole perennial philosophy had sprung — those books that contained "the knowledge that God delivered to Enoch" — "the mysteries of the word of God"²⁹⁷ — and lay the foundation of a complete restitution of both philosophy and religion.

The fundamental difference between the angelic conversations and *Monas hieroglyphica* did not, therefore, lie in how the history of human knowledge was construed, but in how it was utilized. When Dee in the 1580s prayed to God to facilitate his "philosophical studies through the cumpany and information of the blessed Angels of God", it was a result of his realization that he "could fynde no other way, to such true wisdom atteyning, but by thy [God's] extraordinary gift: and by no vulgar Schole doctrine, or humane Invention".²⁹⁸ The angelic conversations were, in effect, an attempt to circumvent history and gain insight into the Word without relying on human traditions and language.

Roger Bacon and the universal grammar

When writing *Monas hieroglyphica*, however, Dee still believed that human traditions and language held the key to a universal knowledge of the world. Not only did he consider the traditional alchemical symbols to embody the secrets of the ancient *magi*; in showing how the Latin, Greek and Hebrew alphabets could be derived from the Monas symbol, he clearly implied that the geometric proportions of these letters reflected the "law of creation". Referring to the lost *Speculum unitatis*, he also suggested that a close examination of the symbol would reveal the existence of a "universal grammar", claiming

²⁹⁶ Bono, *The Word of God and the Languages of Man*, p. 27.

²⁹⁷ Dee, *A True & Faithful Relation*, pp. 196, 64.

²⁹⁸ Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 8, 16-17.

that the grammarian who could prove “that grammar is one science, [and] that it descends from one man” would rise through the hierarchy of knowledge and ultimately attain an “understanding of the supracelestial virtues and metaphysical influences”.²⁹⁹

As Dee never elaborated the claim, it is fraught with risks to draw any definitive conclusions from this brief statement, but it might be significant that it was made in connection with Roger Bacon. Bacon clearly considered the study of language and grammar as essential to the attainment of the *integritas sapientiae*, the unified system of philosophy which might have been what Dee alluded to when naming his apology “The Mirror of Unity”. In his *Opus tertium*, he asserted that “the knowledge of language is the first gate of wisdom”, and in *Opus majus* he gave a careful account of how the three principal languages — Latin, Hebrew and Greek — were essential to understand the true meaning of the Scripture.³⁰⁰ As Nicholas Clulee remarks, Bacon appears to have regarded these three languages as in some way “interrelated” and the “understanding of the true grammatical reasons behind these languages [as] important for the recovery of the single perfect wisdom that was given to man by God”.³⁰¹

What Clulee does not seem to have noted, however, is that Bacon’s philosophy included the very notion Dee found so important: the idea of a “universal” grammar underlying all languages and “from which the various (imperfect) grammars of real languages draw their morphological and syntactic features”, as Peter H. Salus puts it.³⁰² A

²⁹⁹ Dee, *Monas hieroglyphica*, pp. 122/123, 116/117. Apart from the lost *Speculum unitatis*, Dee never seems to have dealt with the notion of a “universal grammar” more extensively. The only additional allusion to this notion can be found in a short poem he wrote for Henry Parry’s *Egluryn Phraetneb* in 1594, in which Latin, Hebrew and Welsh are suggested to share a common *structura*. See Calder, *John Dee Studied as an English Neoplatonist*, I, p. 268; and *Ibid.*, II, p. 521.

³⁰⁰ Bacon, *Opus tertium*, xxviii, p. 102: “Notitia linguarum est prima porta sapientiae”; *The Opus Majus*, I, pp. 75-115.

³⁰¹ Clulee, *John Dee’s Natural Philosophy*, pp. 126-127.

³⁰² Salus, “Universal Grammar 1000-1850”, p. 87. Clulee refers in this context to *Opus tertium*, pp. 33-4, 73 and 88, passages which in turn refer back to the second and third part of the *Opus majus*, which treats the notion of a perennial philosophy and the necessity of mastering Hebrew and Latin to interpret the Scripture (*The Opus Majus*, I, pp. 36-115). It thus seems that Clulee has not noted Bacon’s conception of a universal grammar. Secondary studies on Bacon’s universal grammar seem to be very scarce; indeed, I have not been able to locate any study treating this

famous example is Bacon's claim in his *Grammatica graeca* that "grammar is one and the same in substance in all languages, although it differs in accidents".³⁰³ What Bacon referred to in this context was not the conventional study of grammar, which treated "the facts relating to speech and its properties in prose, meter and rhythm ... in a puerile way by means of statements", as he wrote in *Opus majus*, but a deeper form of grammar, constituting the common "causes and reasons" of language.³⁰⁴ These "causes and reasons", in other words, did not concern the accidents of language — how one speaks a particular language — but constituted a set of *logical* principles underlying all languages. The close relation between logic and grammar was repeatedly stressed by Bacon, and in his *Opus tertium* as well as his lectures he spoke of "*logica et grammatica*" as if a distinction was unnecessary, characterizing them both as innate in the human mind. While the actual vocabulary of different languages had to be learnt, and had originally been invented by the ancients after the confusion of tongues, the principles underlying both grammar and logic were innate — "the science itself, all humans have from nature".³⁰⁵

Bacon's conception of a universal grammar is of interest not only because it might have been what Dee alluded to in *Monas hieroglyphica*, but also because it provides an illustrative example of how misleading the distinction between "conventional" and "natural"

subject, though references to Bacon as the first philosopher formulating this concept are quite common.

³⁰³ Bacon, *The Greek Grammar of Roger Bacon*, p. 27: "grammatica una et eadem est secundum substantiam in omnibus linguis, licet accidentaliter varietur." According to the editors of *John Dee's Library Catalogue* it is plausible that the manuscript of this text, now at Corpus Christi College, Oxford, once belonged to or at least was known to Dee, since it came to Oxford through the bookseller Brain Twayne, who was the grandson of Thomas Twayne, a close friend of Dee with whom he frequently traded books and manuscripts. (See Roberts and Watson (eds.), *John Dee's Library Catalogue*, no. DM 133.) Bacon's notions of grammar are also clearly expressed in other works which Dee was familiar with, see especially *The Opus Majus*, I, pp. 118-122; *Ibid.*, II, p. 499; and *Opus tertium*, pp. 102-105.

³⁰⁴ Bacon, *The Opus Majus*, I, p. 118.

³⁰⁵ Bacon, *Opus tertium*, p. 102: "Sed ipsam scientiam habent omnes homines ex natura. [...] Cognitio enim naturalis est ante inventionem et doctrinam; et quod primo habemus per eas est notitia linguae alicujus, quam acquirimus ex doctrina. Sed primi auctores linguarum eas invenerunt, vel a Deo habuerunt in divisione linguarum, cum constructa est Turris Babel post Diluvium." Bacon's lectures are reprinted in Steele, "Roger Bacon as Professor", in this context see especially p. 64.

language views can be. As Howard Bloch has pointed out, scholastic views of language can often be characterized as a kind of “moderate conventionalism”, implying that language was regarded as a human invention based on social agreements and customs, but nonetheless mirroring and conforming to nature. As John of Salisbury (c. 1115-1180) put it in his *Metalogicon* (1159):

While grammar has developed to some extent, and indeed mainly, as an invention of man, still it imitates nature, from which it partly derives its origin. Furthermore, it tends, as far as possible, to conform to nature in all respects.³⁰⁶

John of Salisbury’s insistence that grammar imitates and conforms to nature did not rise out of a Platonic conception of language. Instead, it had its basis in the same assumption as Roger Bacon’s notion of grammar: that grammar is a part of logic and hence “an immanent power infused into one’s soul by nature”³⁰⁷ — a notion that was firmly based on the Aristotelian language view. In *De interpretatione* Aristotle not only stressed that the meaning of words are “established by convention alone” and that speech and writing are merely “symbols and signs of affections or impressions of the soul”. Equally important was his assertion that although “speech [is] not the same for all races of men”,

the mental affections themselves, of which these words are primarily signs, are the same for the whole of mankind, as are also the objects of which those affections are representations or likenesses, images, copies.³⁰⁸

That is to say, while words were merely conventional representations of mental concepts, the mental concepts themselves were natural and universal representations of an equally universal reality. Since Aristotle simultaneously insisted that words have meaning *only* by “standing for” or “indicating” mental concepts or things, there had to exist a form of correspondence between language, mind and reality if language was to be more than a jumble of noises.

³⁰⁶ Johannes Saresberiensis, *The Metalogicon of John of Salisbury*, I.14, p. 39. Cf. Bloch, *Etymologies and Genealogies*, p. 48.

³⁰⁷ Johannes Saresberiensis, *The Metalogicon of John of Salisbury*, I.11, p. 34. See also I.13, p. 37.

³⁰⁸ Aristotle, *On Interpretation*, 16a, pp. 117, 115.

Aristotle's remarks gave rise to a number of scholastic attempts to formalize the concept of a universal grammar, a grammar that did not concern the actual expression of language but described the underlying "deep-structure" (to use a modern expression) of all functional languages. Most famous of these attempts is the *grammatica speculativa* developed in the early fourteenth century by the so-called Modistae, a group including, among others, Siger of Brabant, Thomas of Erfurt and Boethius of Dacia.

Using the current scholastic terminology, the Modistae developed a complex "grammatical" system centred on the relationship between the *modi essendi* of things, the *modi intelligendi* of the mind, and the *modi significandi* of words as well as of the mind. If verbal sounds (*voces*) were to be shaped into *meaningful* words (*dictiones*) and parts of speech (*partes orationis*), the "active modes of signification" of the mind, as well as the "passive modes of signification" of words, had to represent accurately the *modi essendi* of things — a representation which could only be achieved if there were a form of "specular" relationship between mind, reality and language.³⁰⁹ As Bursill-Hall puts it, the *grammatica speculativa* was a grammar which "had its basis outside language itself". Central to this conception of language was the idea that

there was one universal grammar dependent on the structure of reality, and that the rules of grammar were quite independent of the language in which they were expressed. There was one grammatical system fixed and valid for all languages but which the philosopher of language alone is able to discover.³¹⁰

Needless to say, the elaborate scholastic systematizations of the Modistae cannot be projected back on to Roger Bacon's linguistic theories. Nor, for that matter, is it plausible that Dee was influenced by medieval speculative grammar.³¹¹ What the *grammatica speculativa*

³⁰⁹ For a detailed study of the *grammatica speculativa*, see Bursill-Hall, *Speculative Grammars of the Middle Ages*. For a brief survey of the history of the universal grammar in its different forms, see Salus, "Universal Grammar, 1000-1850."

³¹⁰ Bursill-Hall, *Speculative Grammars of the Middle Ages*, pp. 35, 38.

³¹¹ Though Dee's library catalogue contains a section of fifty-four works on grammar, texts on medieval grammatical theory are virtually non-existent and it seems implausible that he had any first-hand knowledge of the *grammatica speculativa*. The section does, however, include works by Valla, Linacre and Scaliger,

illustrates, however, is that the perennial distinction between “conventional” and “natural” language views is untenable as an analytic instrument; and, more importantly, that it is so because it fails to consider the mind’s relation to reality and language. The Aristotelian position could be used to bolster the notion of language as both, and simultaneously, conventional and conformable to physical reality precisely because it suggested the existence of a linguistic “deep-structure”, innate in the human mind.

One of the most debated works in this context is the *De vulgari eloquentia* of Dante Alighieri (1265-1321), written presumably between 1303 and 1305. In this work Dante proposed that the Italian vernacular could be restored to the status of an “eloquent” language, representing reality in an accurate and faithful form. Dante did not, however, suggest that the Italian vernacular was derived from the original Adamic tongue, which he explicitly identified as Hebrew. Instead he seems to have suggested that *any* vernacular could be turned into an “eloquent” language if only it were purged of its inherent imperfections and defects. According to Dante the vernacular tongues were “more noble” than Greek and Latin since they were acquired “without any formal instruction, by imitating our nurses” and hence more intimately related to the inherent rationality of the human mind. As he pointed out, the vernacular had been “the language originally used by the human race”, and is still employed by “the whole world ... though with different pronunciations and using different words.”³¹²

This last phrase suggests that Dante regarded all vernacular tongues as based on a common foundation, a point that was underscored by his commentary on the biblical narrative of the *confusio linguarum*. What God deprived humanity of at the tower of Babel, argued Dante, was not the Adamic language as such, but a mental faculty, the *forma locutionis* or “form of language”:

a certain form of language was created by God along with the first soul; I say ‘form’ with reference both to the words used for things, and to the construction of words, and to the arrangement of the construction; and this form of lan-

who were all strong opponents of scholastic thought and medieval speculative grammar; see Roberts and Watson (eds.), *John Dee’s Library Catalogue*, nos. 1625-1679.

³¹² Dante, *De vulgari eloquentia*, I.1, pp. 2/3; and I.3, pp. 6/7.

guage would have continued to be used by all speakers, had it not been shattered through the fault of human presumption...³¹³

The *forma locutionis* was, in other words, not only a set of principles underlying every vernacular language; it was an inherent capacity in man, making it possible to represent reality accurately in the form of language. These principles, innate in perfect form in every human being before they were “shattered” at the confusion of tongues, could — to some degree, at least — be restored artificially through the methodical study of language, the very task to which Dante devoted the major part of the *De vulgari eloquentia*. Yet it is evident that he never regarded Italian as superior to other vernacular languages, as these principles could be employed to construct a variety of different languages, “conventional” since they were based on social customs and agreement, yet “natural” in the sense that they represented reality in a true and accurate form.³¹⁴

In recent decades it has been widely debated whether Dante was influenced by the Modistae, but the idea that all languages were based on a common set of principles which was innate in the human mind was by no means uncommon. The notion also reappears in the works of Dee’s contemporaries Julius Caesar Scaliger (1484-1558) and his follower Franciscus Sanctius, or Sanchez (1523-1600). In *De causis linguae Latinae* (1540) Scaliger discussed the *causae* of the Latin language from an Aristotelian perspective, using the term “cause” to signify both the historical origin of a word and the process of derivation of speech from thought. Central to Scaliger’s account was the notion of logic or reason (*ratio*) as a mental faculty given by God which enabled man to create and analyse language. More precisely, the *ratio* of man was defined as the faculty by means of which we apprehend the *universalia* inherent in physical things and which gives us the power to represent these accurately in the form of words.³¹⁵ Yet

³¹³ Dante, *De vulgari eloquentia*, I.6, pp. 12/13.

³¹⁴ For discussions of Dante’s notion of the “illustrious vernacular”, see Eco, *The Search for the Perfect Language*, pp. 34-52; and Mazzocco, *Linguistic Theories in Dante and the Humanists*, especially pp. 108-179.

³¹⁵ For a survey of Scaliger’s theory of language, see Jensen, *Rhetorical Philosophy and Philosophical Grammar: Julius Caesar Scaliger’s Theory of Language*. The similarities between Scaliger’s notions in *De causis* and the *grammatica speculativa* has been pointed out by Jensen, “The Concept of Signification in J. C. Scaliger”, p. 44, as

Scaliger sometimes describes the relation between things and words in a terminology remarkably reminiscent of the Platonic language view: “In the same way as words are signs of things, they also imitate their nature.” But, as Kristian Jensen has pointed out, Scaliger’s insistence on the correspondence between language and reality should not be interpreted as a Platonic conception. Rather, it seems clear that “Scaliger did believe that words signify mental terms, which in their turn are reflections of the *res*, but that the mirror of the intellect is so perfect that the mental level becomes superfluous when one talks about the matter”.³¹⁶

The consequences of these ideas were largely left unexplored by Scaliger, but were fully brought out by Franciscus Sanctius in his *Minerva seu de causis linguae Latinae* (1562, 1587), a work profusely influenced by Scaliger’s *De causis*. Since the concepts of the mind as well as the *universalia* of things were universal, the same basic principles (*rationes, vera principia*) had, according to Sanctius, to underlie every language — principles which, in effect, were not only linguistic in character, but constituted the very logic underlying *created nature* as well as the rational mind of man. As a consequence, Sanctius could see no conflict between the views of Plato and Aristotle: all languages were “natural” in the sense that they were in accordance with the nature of things, yet also “conventional” since they were imposed on things by human will — imposed, as he put it, not through arbitrary convention, but after deliberation had taken place (*adhibito consilio*). Thus, Sanctius asserted, the notion stated in Scripture as well as in Plato’s *Cratylus* — that words signify naturally — was fully in agreement with Aristotle’s assertion that words signify according to convention.³¹⁷

Thus, neither the notion of a universal “grammar” nor the belief in a fundamental correspondence between language and nature presupposed a view of language as “natural”. Instead these notions rose from a conception of human reason as a faculty in which the principles underlying both language and nature were innate. How these principles were conceptualized varied considerably from scholar to

well as by Brevia-Claramonte, *Sanctius’ Theory of Language*, pp. 71-72.

³¹⁶ Jensen, “The Concept of Signification in J. C. Scaliger”, pp. 42-43. See also Jensen, *Rhetorical Philosophy and Philosophical Grammar*, pp. 145-146.

³¹⁷ Sanctius, *Minerva, sive de causis linguae Latinae*, pp. 2-3. For a discussion, see Brevia-Claramonte, *Sanctius’ Theory of Language*, especially pp. 202-206.

scholar depending on philosophical background and personal inclination. Dee's interest in Roger Bacon's conception of a universal grammar was in all probability a result of the fact that Bacon conceived of these principles in terms of mathematics. As Bacon wrote in the *Opus majus*, grammar and logic — again treated as virtually identical — could be regarded as “accidental parts of philosophy” which could not “be known without mathematics”. Mathematics, he asserted, is the “first among sciences and will precede others disposing us towards them”, for “comprehension of mathematical truths is innate, as it were, in us”.³¹⁸

The notion that mathematics constituted the basis of all true philosophy was a commonplace in the Pythagorean and Neoplatonic tradition, a tradition we find forcefully advocated in Dee's *Mathematicall Praeface*. In this text Dee praised the “Artes Mathematicall” as the keystone of natural science:

O comfortable allurements, O ravishing perswasions, to deale with a Science, whose Subiect, is so Auncient, so pure, so excellent, so surmounting all creatures, so vsed of the Almighty and incomprehensible wisdom of the Creator, in the distinct creation of all creatures.³¹⁹

In describing mathematics as the instrument employed by God in the creation of all creatures Dee gave expression to another commonplace in the Pythagorean tradition, perhaps most pointedly expressed in the famous dictum of Boethius (d. 524) which he quoted in his *Praeface*:

*All things (which from the very first originall being of thinges, haue bene framed and made) do appeare to be Formed by the reason of Numbers. For this was the principall example or patterne in the minde of the Creator.*³²⁰

In the Neoplatonic conception of mathematics, numbers were no mere human abstractions; they were the “pattern” in the mind of

³¹⁸ Bacon, *The Opus Majus*, I, pp. 118, 121. See also *Ibid.*, II, p. 499, and *Opus tertium*, p. 105.

³¹⁹ Dee, *The Mathematicall Praeface*, sig. *.j.^r.

³²⁰ Dee, *The Mathematicall Praeface*, sig. *.j.^r, quoting Boethius, *De arithmetica*, I.2.1: “Omnia quaecumque a primaeua rerum natura constructa sunt numerorum uidentur ratione formata. Hoc enim fuit principale in animo conditoris exemplar.”

the Creator, the *verbum Dei* from which the universe had been shaped.

As an *imago Dei* man possessed these divine principles of creation by nature, innate in his mind. As Thomas Elyot put it in *The Boke named the Governour* (1531), “god almyghtie infused Sapience into the Memorye of Man” by putting “certayne species or as it were sedes of thynges and rules of Artes or Sciences” in his soul.³²¹ Similarly, Dee stressed that human knowledge and reasoning — in particular, mathematical reasoning — was a reflection of the divine wisdom, the original *Logos*. When man applied mathematical laws to “number” things, his soul relied on the very same principles that God employed when He “in the beginning, produced orderly and distinctly all thinges”, for God’s “numbryng” was “his Creatyng of all thinges”. Hence, by means of numbers man could comprehend both God and nature, both “thinges Spirituall” and “the least thynges that may be seen”.³²²

Viewed against this background, Dee’s reference to a universal grammar takes on a new significance. What Dee found support for in the works of Roger Bacon was not only the notion of an underlying grammar based on mathematical principles; in accommodating this notion within a Pythagorean scheme, he could also treat this grammar as intimately tied up with the concept of *Logos*. To comprehend the common principles behind all languages was, from this perspective, tantamount to comprehending the divine wisdom underlying God’s creation, the *verbum Dei* — a feat that would raise the mind to an “understanding of the supracelestial virtues and metaphysical influences” governing the created universe.

³²¹ Elyot, *The Boke named the Governour*, III.23, p. 273.

³²² Dee, *The Mathematicall Praeface*, sig. *.j.^v. These conceptions are discussed in detail in part II below.

The inner word and man's quest for reformation

In a later chapter we shall return to Dee's mathematical concepts in *Monas hieroglyphica*, which indeed lend credence to the suggestion that his allusion to a universal "grammar", symbolically manifested in the "Hieroglyphic Monad", was an oblique reference to the divine Word. To pinpoint a specific source of this concept would be difficult, however, for the notion that all human speech was ultimately based on the Word was an integral part of the Christian *logos* doctrine. This conception was to a large extent a result of the ambiguous meaning of the Greek word *logos*, signifying "reason" and "speech" as well as "word". In the original Stoic formulation of the concept, *logos* had three closely interrelated meanings: it referred to the divine reason organizing matter; to the principles inherent in the human mind; and to rational discourse. An illustrative example of this conception of *logos* can be found in the Hermetic texts translated into Latin by Ficino. In one of these dialogues, Hermes states that man has received two gifts from God, mind (*mens*) and speech (*sermo*), both of which have the power to "guide him to the troop of the gods and the blessed". However, reflecting that there are different races of men, the young disciple of Hermes objects: "do their tongues not differ?", whereupon Hermes replies:

They are different my son, yet speech is one; transferred by means of translation into this or that [language], one word can finally be found to exist. This word is the same among the Egyptians and Persians, as among the Greeks.³²³

This "word", *verbum*, that was found to exist in all languages regardless of their nationality was, of course, Ficino's rendition of the Greek *logos*. As Hermes stated in the dialogue, mind and speech constituted the divine elements of man, since they were both governed by "reason" — again, *logos*. He then went on to explain that God revealed that "soul is in body, that mind is in soul, that word is in mind and asserted that God is their father. The word, then, is the image

³²³ Ficino, *Opera omnia*, p. 1853: "Quinetiam corporis solutus compedibus, ab utrisque ducetur in chorum beatorum simul, atque deorum. [...] O pater, diversa genera hominum, diversis utuntur sermonibus? TR. Diversis o fili unus etiam sermo: qui per interpretationem huc, atque illuc translatus, unum denique verbum existere reperitur. Verbum idem apud Aegyptios, Persasque & Graecos."

and mind of God...”³²⁴ The “word” in the mind of man, which also underlay all speech, was thus a reflection of the divine Word, the original *Logos*.

It is quite possible that this Hermetic dialogue was one of Dee’s sources when alluding to a universal “grammar”, although this particular passage is not marked in his annotated copy of the *Pimander*.³²⁵ But the tight bonds between language, reason and the Word that this dialogue illustrates remained an integral part of the *logos* doctrine when it was turned into the groundwork of Christian metaphysics, a status it owed largely to Augustine’s *De trinitate*. Augustine’s exposition of the *logos* doctrine was centred on the notion of the human mind as an image of the divine Trinity. Human rationality, our capacity for rational reasoning, was understood as a reflection of the divine reason, enabling us to ascertain truth in the face of the diversity of things. When judging the truth of things, whether of a corporeal or spiritual nature, we judged, according to Augustine, “by the rules of eternal truth”, rules which we were able to discern “by the intuition of the rational mind”.³²⁶ True knowledge resided within our soul, not in the world of senses, and truth was revealed by judging our experiences against the eternal truth which lay enclosed within our mind — by letting the light of our mind shed its illuminating rays on the world we perceived through our senses.

The notion that in our mind we are able to apprehend the Wisdom and Word of God as in a distorted mirror image — “through a glass and in an enigma” as Augustine put it in his lengthy explication of this biblical parable³²⁷ — was to have profound consequences for the way in which epistemological questions were discussed in the subsequent twelve centuries. But Augustine’s formulation of the *logos* doctrine not only situated true knowledge in the soul of man, making truth accessible through an introspective act of contemplation; it also

³²⁴ Ficino, *Opera omnia*, p. 1853: “Beatus Deus, daemon bonus, animam esse in corpore, mentem in anima, in mente verbum pronuntiavit. Deum autem horum patrem asseruit. Verbum itaque imago, ac mens dei est...”

³²⁵ Dee’s copy of the *Pimander* is included in a collection of Neoplatonic texts in Ficino’s Latin translation, now Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage. The date when Dee acquired it is not noted, but it is listed in his library catalogue of 1557 (Roberts and Watson (eds.), *John Dee’s Library Catalogue*, no. B132).

³²⁶ Augustine, *On the Trinity*, IX.6, pp. 796-797.

³²⁷ Augustine, *On the Trinity*, XV.8-10, pp. 842-847.

established a tight bond between the reflection of the divine reason in the human mind and our capacity to express ourselves by means of language. To some extent Augustine's entire theology can be understood as revolving around the problem of how human language is able to convey knowledge of the divine truth; that is, how words can represent the Word in a form that makes it possible to grasp the meaning enclosed within the sign. Augustine's attempt to solve this problem led him to formulate a theory of signification which grounded linguistic representation in the heart of the *logos* doctrine: the theory of the *verbum cordis*.³²⁸ In the ninth book of *De trinitate* Augustine explained:

We behold, then, by the sight of the mind, in that eternal truth from which all things are made, the form according to which we are, and according to which we do anything by true and right reason ... and we have the true knowledge of things, thence conceived, as it were as a word within us...³²⁹

According to Augustine, the true knowledge which arose from our intuitive perception of the divine Wisdom in our mind took the form of "a word within us", a "word of the heart", which preceded all acts of speech and constituted the very *meaning* of the spoken words. The *verbum cordis* was, in other words, an inner, mentally envisioned element of cognition, not yet consciously realized as language in the human mind, but constituting the true and proper content of the spoken words. It was, as Augustine wrote, "a word that is before all sound, before all thought of a sound", a word "which precedes all the signs by which it is signified, and is begotten from the knowledge that continues in the mind, when that same knowledge is spoken inwardly according as it really is".³³⁰

The concept of the *verbum cordis* or "inner word" enabled Augustine to forge a link between human speech and the reflection of the eternal truth in the human soul, a link which made it possible to grasp and comprehend the divine Word through the medium of language. The outer, spoken words were understood as messengers of the *verbum cordis*, the true and proper "word" which remained fixed

³²⁸ For useful discussions of this conception, see Arens, "*Verbum Cordis*: Zur Sprachphilosophie des Mittelalters"; and Harrison, *Beauty and Revelation in the Thought of Saint Augustine*, especially pp. 54-96.

³²⁹ Augustine, *On the Trinity*, IX.7, p. 798.

³³⁰ Augustine, *On the Trinity*, XV.12, p. 851; and XV.11, p. 848.

in the mind of the hearer even when the spoken words which expressed it had died away.³³¹ As a part of the image of God in man, the inner word had the power to illuminate our mind, making the reflection of the divine Word within our soul manifest to our thought:

Whoever, then, is able to understand a word, not only before it is uttered in sound, but also before the images of its sound are considered in thought ... is able now to see through this glass and in this enigma some likeness of that Word of whom it is said, 'In the beginning was the Word, and the Word was with God, and the Word was God'.³³²

Augustine's concept of the *verbum cordis* was essentially an elaboration of a notion we have already seen implied in the original Stoic formulation of the *logos* doctrine, at least as it was expressed in the Greek Hermetic texts: the notion of a common "word" behind all spoken tongues, defined as the image of the divine mind in the soul of man. In *De trinitate* Augustine describes the inner word in terms that are remarkably reminiscent of Hermes' account, stating that the *verbum cordis* is a word that is "neither Greek nor Latin", a word "which belongs to no tongue ... of those which are called the tongues of nations", but "which precedes all the signs by which it is signified".³³³

As Hans Arens has recently shown, Augustine's conception of the inner word found its way into the works of John of Damascus, Anselm of Canterbury, Bonaventure, Albertus Magnus and Thomas Aquinas, thereby turning into a common notion in medieval and early modern linguistics.³³⁴ As late as 1577, Pierre de la Primaudaye described the human gift of speech in Augustinian terms in his great compendium of commonplaces, *L'Academie Francoise*. Contrasting the "internal speech" in the human mind with the "outward speech" uttered by the mouth, he emphasized that "the image of the heavenly word in the speech of man" was retained in the spoken words when the "image of the minde appareth imprinted and engrauen in the speach that is vttered".³³⁵

³³¹ Augustine, *On the Trinity*, IX.7-IX.10, pp. 798-800.

³³² Augustine, *On the Trinity*, XV.10, p. 846.

³³³ Augustine, *On the Trinity*, XV.10, p. 846; XV.11, p. 848.

³³⁴ Arens, "Verbum Cordis: Zur Sprachphilosophie des Mittelalters".

³³⁵ La Primaudaye, *The second part of the French Academie*, pp. 88-91.

The Augustinian conception of the inner word was significant in several ways. Firstly, it tied human language and speech conceptually to the divine Word. The meaning of a statement could be recognized as true because it was in agreement with the inner word, which in turn was a reflection of the *verbum Dei*. Secondly, having forged this conceptual link between man's speech and God's Word, it was possible to conceive of human language *in terms of* the divine Word; that is, to conceptualize it metaphorically in relation to the *verbum Dei*. In a later chapter we shall see how these conceptions were exploited in early modern scholarship to support a range of notions that patristic writers had been careful to avoid or even explicitly condemned. Turning to Agrippa's *De occulta philosophia*, for instance, we find a lengthy account of how the "voice of God" is present in the "intrinsic word" (*verbum intrinsecum*), defined as the mind's "knowledge of itself" and expressed by means of the "extrinsic and vocal word", the "offspring and manifestation of that [intrinsic] word". Agrippa then goes on to state that our speech has no "power in magic" unless it is "formed by the divine Word", and carries the "voice of God" enclosed within the "intrinsic word" with it.³³⁶ Rather than having its basis in a Platonic conception of "natural" languages, the belief in the magical power of words was bolstered by the notion of man as an *imago Dei* and of human speech as analogous to the creative Word of God.³³⁷

A third reason for giving this lengthy account of the Augustinian conception of the inner word is that it formed the background of a recurrent theme in Christian thought, namely man's coming "reformation". Augustine's discussion of the *verbum cordis* revolved around the well-known words of Saint Paul, "for now we see through a glass, darkly; but then face to face" (1 Cor. 13:12), a phrase that implied an eventual perfection of the inner word. When the image of God in man's soul had been "renewed to perfection", stated Augustine, "we shall be like God, because we shall see Him, not through a glass, but 'as He is' [1 John 3:4] which the Apostle Paul expresses by 'face to face'".³³⁸

The idea of man's personal reformation — in patristic teachings variously denoted as *reformatio*, *renovatio*, *restauratio*, and *regeneratio* — is one of the most debated notions in the history of Christian-

³³⁶ Agrippa, *Three Books of Occult Philosophy*, III.36, p. 582.

³³⁷ This is discussed in Part III below, pp. 309-318.

³³⁸ Augustine, *On the Trinity*, XV.11, p. 849.

ity.³³⁹ Having its scriptural basis in the writings of Saint Paul, in which the individual's return to God through the mind's renewal or reformation appears as a central theme,³⁴⁰ it was interpreted by a number of early Church Fathers as the coming restoration of our soul into its original, prelapsarian clarity. At the consummation of the world, wrote Origen, the soul will be restored to that state it had "when there was no need of eating from the tree of knowledge of good and evil": to that "original condition", as Gregory of Nyssa echoed, it had had when Adam "was in his first beginnings of his life".³⁴¹ The concept of reformation thus had a central role in Christian historiography. The history of man as an imperfect being was enacted between the two climatic points of deformation and reformation, between the moment when man's soul "turned away from the highest good and turned to lower things", as Robert Grosseteste wrote in his *Hexaëmeron*, and "when the human being is raised above the good of its creation to a sharing of the form of God".³⁴²

A controversial issue, however, was whether man's reformation into the perfect image and similitude of God (*ad imaginem et similitudinem Dei*) was attainable solely at the consummation of the world, or whether it was sometimes granted even in this life. Though most authorities chose to tread lightly when discussing this issue, some did not hesitate to ascribe a number of ancient prophets the experience of having seen God "face to face" in this life. Basil the Great and Gregory of Nyssa counted Abraham, Moses and David among these chosen ones, as well as Saint Paul, whose rapture to

³³⁹ For a comprehensive study of this notion in patristic teachings, see Ladner, *The Idea of Reform: Its Impact on Christian Thought and Action in the Age of the Fathers*.

³⁴⁰ Oft-quoted passages in this context are Romans 12:2, which reads "Et nolite conformari huic saeculo, sed reformamini in novitate sensus vestri: ut probetis quae sit voluntas Dei bona, et beneplacens, et perfecta.", in King James' version rendered as "And be not conformed to this world: but be ye transformed by the renewing of your mind...", and Ephesians 4:23: "Renovamini autem spiritu mentis vestrae", in King James' version rendered as "And be renewed in the spirit of your mind".

³⁴¹ Quoted from Ladner, *The Idea of Reform*, pp. 73, 76.

³⁴² Grosseteste, *On the Six Days of Creation*, 8.6.1-4, pp. 231-232.

Paradise (2 Cor. 2:12) Gregory interpreted as a mystical experience of God's very nature. Likewise, Augustine acknowledged that reformation in some exceptional cases had been granted to wise men in this life, numbering Moses and Paul among those who had seen God "face to face", or "as He is" (*sicuti est*).³⁴³

Man's quest for reformation is a recurrent theme in early modern occult thought. As is well known, Ficino considered the Platonic and Neoplatonic texts he made available to the Latin-speaking audience to be in agreement with Augustinian concepts,³⁴⁴ and the notion of man as an *imago Dei* had a pivotal role in occult philosophy. As the Paracelsian alchemist Oswald Croll put it, the human soul was "the Image of the Archetype or originall copy and patterne of the world, that is, of the immortall Wisdome of God himselfe..." Hence man could "in himselfe, as in a kind of Deified glasse, behold and understand all things".³⁴⁵ In his monumental *Utriusque cosmi historia* Robert Fludd lucidly illustrated how man was capable of comprehending the divine realm through its reflection in the human mind (fig. 8). The human soul was analogous to Jacob's ladder, enabling man to ascend step by step towards God, from sense perception, via imagination, reason, intellect (*intellectus*), and intelligence (*intelligentia*), until he finally reached the Cause of Causes, the *verbum Dei* (fig. 9).³⁴⁶

Jacob's ladder is a frequently recurring metaphor in early modern accounts describing how the study of philosophy ultimately leads us to a knowledge of God. A well-known example is Pico della Mirandola's famous account in *De hominis dignitate* of how we may ascend step by step, first by purifying our soul, then by engaging in natural philosophy, from which we rise to a contemplation of divine things until we finally "come to rest in the bosom of the Father, who is at the top of the ladder, and are consumed by a theological happiness".³⁴⁷ A similar account is given by Ficino in a passage which has

³⁴³ Ladner, *The Idea of Reform*, pp. 77, 190-191. Cf. 1 John 3:2.

³⁴⁴ For an elucidative study of Ficino's and Pico della Mirandola's notions of man and their dependence on Augustinian conceptions, see Trinkaus, *In Our Image and Likeness*, II, pp. 461-551.

³⁴⁵ I am quoting from the English translation of the 'Praefatio admonitoria' to *Basilica chymica* (1611), entitled *Philosophy Reformed & Improved in Four Profound Tractates*, pp. 55, 48.

³⁴⁶ Fludd, *Utriusque cosmi maioris ... historia*, II, pp. 218-221, 272.

³⁴⁷ Pico della Mirandola, *On the Dignity of Man*, p. 10.

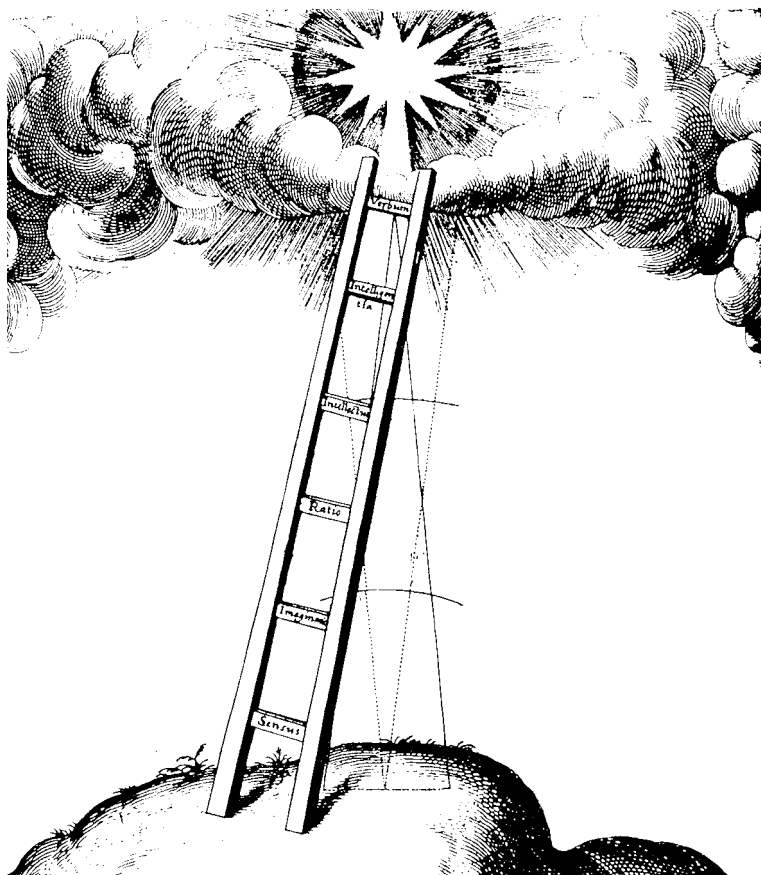


Fig. 9. The human soul as a Jacob's Ladder. From Robert Fludd, *Utriusque cosmii maioris scilicet et minoris metaphysica, physica atque technica historia*, 1617-1621, vol. II, Tract I, sect. I, Lib. XIII, p. 272.

attracted Dee's attention. Commenting on Plotinus' *Enneads*, Ficino describes how man may ascend by separate steps along a "ladder" leading to God, beginning with purifying his soul, then in several steps contemplating inferior entities as symbolic expressions of the superior realm while raising prayers to God to grant knowledge, until, finally, he is transformed into the highest intellect — God.³⁴⁸

³⁴⁸ Plotinus, *De rebus philosophicis libri LIIII. in enneades sex distributi* (London, Royal College of Physicians, shelfmark D 124/5, 17c), fol. 181^r: "Scala per quam ascenditur ad principium, septem gradus habet. Primus est *purgatio* animi. Secun-

Although the basic elements of this scheme — purification of the soul, contemplation of nature as a means to raise the mind to divine matters, and man's ultimate deification — were an integral part of orthodox Christian doctrine, the revival of pagan, Platonic and Jewish philosophy in the Renaissance had a crucial role in how they were exploited in early modern occult thought. The influence of these sources tended to blur the distinctions between natural philosophy, theology and mysticism, fostering interpretive approaches which were aimed at fathoming both nature and God by means of contemplative techniques. With the appropriation of hieroglyphics, kabbalah, Pythagorean number symbolism and Neoplatonic theurgy, the prospect of seeing God “face to face” in this life was no longer reserved for a few biblical prophets. Instead, these conceptions laid the foundation for different forms of “mysticism” which treated man's vision of God as attainable through contemplation of symbolic language. That is, by focusing the mind on symbolic expressions of divine truths, man could transcend the ordinary forms of human thought and attain a literally divine comprehension of the world.

dus, cognitio operum divinatorum, singulatim comparata. Tertius, contemplatio ordinis, quo opera inferiora reducuntur ad superiora gradatim. Quartus, comparatio quaedam proportionalis ex ordine huiusmodi ad divinum ordinem sese conferens. Quintus, negatio per quam cuncta *quae concipis separes a principio*. Sextus, *supplex ad deum oratio*, ut *ipse intellectualis mundi pater te reddat mundum intellectualem actu*. Ens enim potentia mundus hic ab initio. Septimus, ut quum ipse intellectualis mundus evaseris, ulterius amore boni, concitus ex statu intellectuali *transformeris in bonum superis intellectu*.” (Ficino's commentary to *Ennead* 6.7.36; Dee's emphasis.)

II. The Language of Symbols

In *Monas hieroglyphica* Dee relied on a range of esoteric traditions in which symbolic expressions were viewed as a means to attain a mystic ascent of the soul. One of these traditions, alluded to in the title of the work, was the Renaissance tradition of hieroglyphics. This tradition exerted a tremendous influence on early modern scholarship, including humanistic cultures of learning and traditional “exoteric” disciplines such as natural history. Though Dee’s “hieroglyphical writing” was rooted primarily in occult concepts, I shall in the following chapters briefly discuss the impact of hieroglyphics from a more general perspective. This discussion has a twofold purpose. Firstly, it will show the scope of interpretive possibilities that hieroglyphics provided. Though the early modern interest in these symbols was originally fostered by the Platonic revival, they were not dependent on a specific philosophical tradition or set of epistemological assumptions. Secondly, and more importantly, it will show how this conceptual fluidity made it possible to relate hieroglyphics in a variety of ways to ideas of “natural” languages, the Book of Nature, allegorical imagery, the letters of the alphabet, and, of course, the wisdom of the ancients.

The Neoplatonic view of hieroglyphics

The hieroglyphs of ancient Egypt made their first appearance in the European world of learning in a highly dubious guise in 1419, when Cristoforo de’ Buondelmonti acquired an enigmatic Greek manuscript from the island of Andros: *Horapòllonos Neilòus ieroglyphikà* — “The Hieroglyphics of Horapollo of Nilopolis”. In this text, slender in bulk and seemingly unpretentious in content, the otherwise unknown Horapollo had compiled a series of brief descriptions of the symbolic images used by the ancient Egyptians to visualize abstract concepts. For example, when expressing “the Universe” they had, according to Horapollo, drawn “a serpent devouring its own tail, marked with variegated scales” (fig. 11). The scales represented the stars in the heavens, the smooth skin represented water, and by shed



Fig. 10. Illustrations to Horapollo's *Hieroglyphica* by Albrecht Dürer, 1514.

ding its skin every year and growing young again the serpent manifested how “each seasons of the year returns successively”. Finally, by devouring its own tail it manifested that “whatever things are generated in the world by Divine Providence are received back into it by [a gradual process of] diminution”.³⁴⁹ The original manuscript contained no pictures, an omission repeated in most subsequent editions, but when Emperor Maximilian of Habsburg requested a Latin translation in 1514, Albrecht Dürer (1471-1528) provided a series of

³⁴⁹ Horapollo, *The Hieroglyphics of Horapollo*, p. 57. For surveys of the European tradition of hieroglyphics, see Iversen, *The Myth of Egypt and its Hieroglyphs*; Dieckmann, *Hieroglyphics*; Eco, *The Search for the Perfect Language*, pp. 144-177; Gombrich, “Icones Symbolicae: Philosophies of Symbolism and their Bearing on Art”; and Singer, “Hieroglyphs, real characters, and the idea of natural language in English seventeenth-century thought”.

drawings intended to re-create the strange imagery of the ancient Egyptians (fig. 10 and fig. 11).

Despite its brevity and — to the modern eye — evidently inauthentic content, the *Hieroglyphica* attracted considerable attention from philologists and philosophers alike, not least from the Florentine circle of Neoplatonists gathering around Marsilio Ficino. Ficino's interest in hieroglyphics was fuelled by the status ascribed to the Egyptian language in a number of Greek texts he had translated into Latin. According to Iamblichus' (c. 280-325) *De mysteriis aegyptiorum*, "On the mysteries of the Egyptians", the hieroglyphic characters had constituted the very basis of "the theology of the Egyptians":

The Egyptians imitated the very nature of the universe and the work of the gods; they also showed the images of the mystic and hidden notions in form of symbols, in the same way in which nature too expresses the hidden causes in apparent forms or in symbols, as it were, and the gods explain the truth of the ideas in manifest images. Therefore, since they understood that everything superior delights [man] through its similitudes with the inferior and since, moreover, they wish to be filled with goodness by the superior, so as to imitate it according to their ability, rightly they offer, according to their abilities, a way of action agreeing with the superior, when they put the hidden mysteries in manifest symbols...³⁵⁰

In Iamblichus' view, the ancient Egyptian imagery constituted a "natural" language which accurately reflected the symbolism inherent in creation itself. By representing superior entities and concepts in the shape of inferior entities, the Egyptians had been able to express themselves in a true language, speaking of the superior world as na-

³⁵⁰ Ficino, *Opera omnia*, p. 1901: "Imitantes Aegyptii ipsam universi naturam, fabricamque deorum, ipsi quoque mixticarum, reconditarumque notionum imagines quasdam in symbolis conficiendis ostendunt, quemadmodum & natura rationes occultas in apparentibus informis, quasi symbolis exprimit, & dii veritatem idearum per manifestas imagines explicant. Cum ergo perspiciant superiora omnia inferiorum similitudinem delectari, atque insuper optent à superioribus bonitate repleri, quatenus pro viribus imitentur, merito & ipsi convenientem superis modum agendi pro viribus offerunt, quando occulta mysteria symbolis inferunt manifestis, in quibus interpretandis dimitte voces, accipe sensus." Dee's copy of *De mysteriis* (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage) is annotated throughout, but this particular passage is not marked.

ture speaks of its Creator. Significantly, in the Greek original Iamblichus denoted both natural entities and the Egyptian images as *symbola*, a word originally referring to a kind of ceramic shards that were used to verify the identity of messengers by exactly matching the original pottery they were taken from.

The European interest in the Egyptian hieroglyphs was reinforced by the history attributed to these symbols. In *De mysteriis* Iamblichus introduced his account by asserting that the philosophy he expounded was derived from the ancient “pillars of Hermes”, on which Hermes Trismegistus, the first of the illuminated sages and inventor of the hieroglyphs, had engraved his perfect knowledge, and from which Pythagoras and Plato had learned their philosophy.³⁵¹ The Egyptian characters were, in effect, the very origin of Greek philosophy, on which all subsequent knowledge rested. This historiography is echoed in the vast and widely read literature of pseudo-Aristotle, in which Hermes is often identified as the source of the secret lore that Aristotle passed on to his student, Alexander the Great.³⁵²

In early modern scholarship, the Egyptian hieroglyphs were often attributed a central position in the narrative of a perennial philosophy. In his *L'Art de faire des devises* (1645) Henry Estienne claimed that hieroglyphics had been the foremost of the “secret Disciplines” of the Egyptians, and, as the Scriptures intimate, the source from which Moses had drawn his perfect wisdom.³⁵³ But, like many other scholars, Estienne found it implausible “that the Egyptians were absolutely the first Authors of this Learning” and suggested an alternative historiography, reminiscent of Thomas Tymme’s account of hieroglyphs in his commentary on Dee’s *Monas hieroglyphica*:

³⁵¹ Ficino, *Opera omnia*, pp. 1873-1874: “Aegyptii scriptores omnia inventa esse a Mercurio, suos libros Mercurio inscribebant. Mercurius praeest sapientiae, & eloquio. Pythagoras, Plato, Democritus, Eudoxus, & multi ad sacerdotes Aegyptios accesserunt. Dogmata huius libri sunt Assyriorum, & Aegyptiorum, & ex columnis Mercurij. Pythagoras, & Plato didicerunt Philosophiam ex columnis Mercurij in Aegypto.”

³⁵² Krage, Ryan, and Schmitt (eds.), *Pseudo-Aristotle in the Middle Ages*, especially pp. 85-88.

³⁵³ Estienne, *The Art of Making Devises*, p. 1. Cf. The Acts 7:22. Estienne draws heavily on Nicolaus Caussin’s introductory chapters in *Symbolica aegyptiorum sapientia* (1618), see especially sigs. a.iiij^v-a.iiij^r.

Abraham lived some certaine time in the City of Heliopolis with the Egyptian Priests, to whom he taught *Astrologie*, which he gloried to have received by Tradition from *Enoch*. And truly, the Principle of other Sciences could not be infused by *Abraham* into the minds of Posterity, without these kinds of *Symboles* and *Aenigma's*, which serve as a Rind or Bark to conserve all the mysteries of our Ancestors wisdom.³⁵⁴

Despite the differing opinions on chronology and the identity of the originators, however, many scholars agreed on the remarkable properties of these ancient symbols. As Estienne put it, they served as “a Rind or Bark” within which the wisdom of the ancients had been preserved for millennia. More than that, they were a means by which man could transcend the forms of ordinary thought and attain a divine comprehension of things. This remarkable property was rooted in Neoplatonic philosophy, in which the visual image was intimately linked to a particular form of knowledge. In his *Enneads* Plotinus (c. 205-270) likened the world of divine Ideas to visual images, stating that the gods and those who dwell among them do not contemplate “propositions” when they have knowledge of the eternal Ideas. Instead they comprehend these Ideas as “likenesses” and beautiful sights, as “images not painted but real”, and “for this reason the ancients called the Ideas realities and essences”.³⁵⁵ What Plotinus tried to underscore was the fundamental difference between the discursive reasoning characteristic of human thoughts, and the uniform, undivided and consummate character of the divine Wisdom. Whereas human thoughts were divided into discrete and successively proceeding propositions, much like a written sentence, the eternal Ideas were present in the divine Mind in their indivisible entirety, as images “not painted but real”.

³⁵⁴ Estienne, *The Art of Making Devises*, p. 2.

³⁵⁵ Plotinus, *Operum philosophicorum omnium*, p. 547 [*Enneads* V.8.5]: “Nemo igitur existimare debet in mundo intelligibili vel deos ipsos, vel habitatores illic alios plusquam felices ibi quasdam propositionum regulas contemplari, sed singula quae illic esse dicuntur, velut exemplaria quaedam & spectacula pulchra intuentibus se offerre, qualia forsitan imagnetur aliquis in animo sapientis existere. Dico autem non simulachra depicta, sed existentia: qua propter ideas antiqui entia & essentias appellabant.”

This distinction was also fundamental to the Christian concept of *Logos*. As Augustine stressed in *De trinitate*, God's thoughts do not proceed successively, "nor yet are things thought severally, so that thought passes from one to another but all things simultaneously are at hand in one glance..." In contrast to the *discursive* character of human reasoning, God's Wisdom was entirely non-discursive, or *intuitive*; the Creator "embraces all that He knows in one eternal and unchangeable and ineffable vision".³⁵⁶ According to Augustine, man would attain this form of comprehension when his mind was finally reformed and the inner word restored to its prelapsarian clarity, a blessing that only a few biblical prophets had been granted in this life. Plotinus, however, seem to suggest that such comprehension can be attained "artificially", as it were, by means of symbols. Having emphasized the distinction between human reasoning and divine, non-discursive comprehension, he asserted that the wise men of Egypt had also understood this. Hence they did not use letters that followed the order of speech and imitated voices when they wished to signify profound mysteries. Instead, they used images which manifested the entire meaning of these mysteries in one single sight.³⁵⁷

Plotinus' account attracted Ficino's attention and in his commentary to this passage he wrote that

when the Egyptian priests wished to signify divine mysteries, they did not use the small characters of script, but the whole images of plants, trees, or animals; for God has knowledge of things not by way of multiple thought but like the pure and firm shape of the thing itself.³⁵⁸

³⁵⁶ Augustine, *On the Trinity*, XV.13, p. 852; XV.7, p. 841. See also XV.14, p. 853.

³⁵⁷ Plotinus, *Operum philosophicorum omnium*, p. 547 [*Enneads* V.8.6]: "Videntur vero mihi sapientes Aegyptiorum sive consummata quadam sapientia sive naturali etiam mentis instinctu, ubi constituerunt sapientiae mysteria nobis significare non usi fuisse figuris literarum significaturis sermonis discursiones & propositiones quasdam, & imitaturis voces pronuntiationesque regularum, sed potius describentes imagines rerum singulas singularum, easque depingentes, in sacris clam rei ipsius discursum significavisse: quod videlicet scientia & sapientia quaedam sit unaquaeque imago sive exemplar & subiectum illud spectaculum totum una collectum, neque sit excogitatio quaedam, neque consilium."

³⁵⁸ Ficino, *Opera Omnia*, p. 1768: "Sacerdotes Aegyptii ad significanda divina mysteria, non utebantur minutis literarum characteribus, sed figuris integris herbarum, arborum animalium quoniam videlicet Deus scientiam rerum habet non tanquam excogitationem de re multiplicem, sed tanquam simplicem firmamque rei

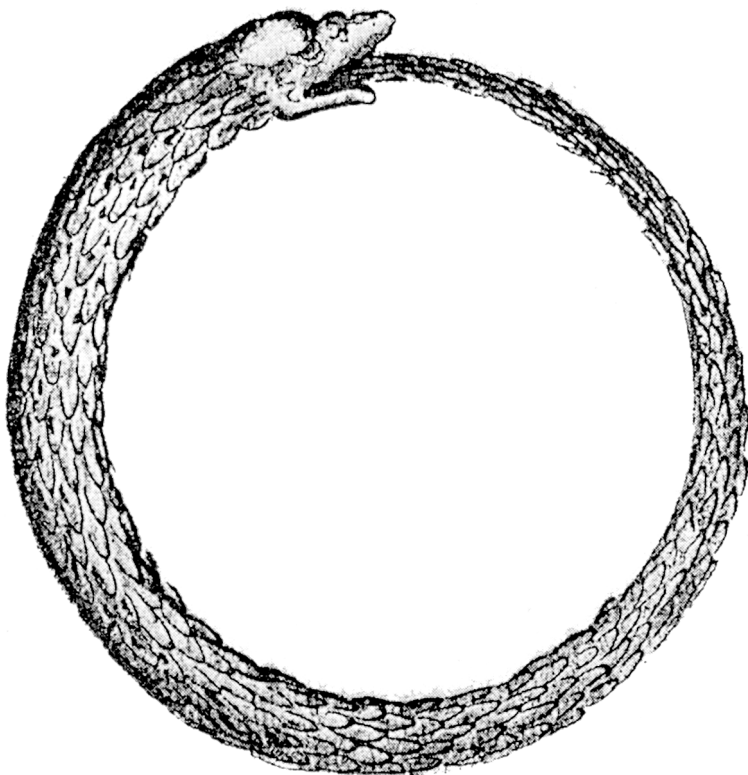


Fig. 11. Illustration to Horapollo's *Hieroglyphica* by Albrecht Dürer, 1514.

Clarifying his point, Ficino invoked the example of the self-devouring serpent described in Horapollo's *Hieroglyphica*, which he interpreted as a symbolic representation of Time, rather than of the Universe as Horapollo had originally stated (fig. 11). Whereas human thoughts about time were "multiple and shifting", apprehending the various qualities of time as separate aspects — how it links the beginning to the end, how it brings forth things and carries them away again, that it teaches prudence in the face of destiny — the Egyptian sages had comprehended "the whole of this discourse in one firm image".³⁵⁹ Thus by contemplating these ancient symbols one would

formam." Dee's copy of Plotinus' *Enneads* in Ficino's translation (London, Royal College of Physicians, shelfmark D 124/5, 17c) is annotated throughout, but none of these passages are marked.

³⁵⁹ Ficino, *Opera omnia*, p. 1768: "Excogitatio temporis apud te multiplex est & mobilis, dicens videlicet tempus quidem est velox, & revolutione quadam

arrive at an increasingly profound understanding of the divine mysteries they manifested, ultimately grasping the entire dimension of meaning in one ineffable vision. As Henry Estienne phrased it a century later, “a certaine divine power” seemed to have resided in the hieroglyphs, since they “illuminated the understandings of those who studied it, by expelling those shades of darknesse occurring in the Meanders and ambiguities of so great diversity of things...”³⁶⁰

The Plotinian account of Egyptian hieroglyphics, portraying these ancient symbols as means by which man could gain access to the realm of divine Ideas, had a tremendous impact on Christian scholars. In his monumental *Oedipus aegyptiacus* (1654) Athanasius Kircher asserted:

According to the testimony of the documents of all ancient authors, the hieroglyphic wisdom of the Egyptians was nothing but the knowledge of God and the divine powers, of the order of the universe and the intelligences governing the world, which, testifies Plutarch, Pythagoras and Plato learned from the pillars of Hermes, that is, the obelisks.³⁶¹

The Christian view of how the blessed will see God’s Wisdom as in one “unchangeable and ineffable vision” was important in legitimizing the appropriation of these Neoplatonic conceptions. As Augustine wrote, “our thoughts will no longer revolve by passing and repassing from one thing to another” when our mind has been reformed to its original clarity, “but we shall see all our knowledge at once, and at one glance”.³⁶² The Christian overtones are evident in many Renaissance accounts of hieroglyphics. A recurrent trope in this context is that hieroglyphs have the power to illuminate the “eyes of the heart”, alluding to Saint Paul’s well-known remark that God

principium rursus cum fine coniungit: prudentiam docet, profert res, & aufert. Totam vero discursionem eiusmodi una quadam firmaque figura comprehendit Aegyptius alatum serpentem pingens, caudam ore praesentem: caeteraque figuris similibus, quas describit Horus.”

³⁶⁰ Estienne, *The Art of Making Devises*, p. 3.

³⁶¹ Kircher, *Oedipus aegyptiacus*, III, p. 567: “Hieroglyphica Aegyptiorum Sapientia, testantibus omnibus Veterum Scriptorum monumentis, nihil aliud erat, quam scientia de Deo, divinisque virtutibus, scientia ordinis Uniuersi, scientia Intelligentiarum Mundi praesidium, quam Pythagoras & Plato, teste Plutarcho, ex Mercurii columnis, id est, ex Obeliscis didicerunt.”

³⁶² Augustine, *On the Trinity*, XV.16, p. 856. See also XV.11, p. 849.

grants wisdom by enlightening the *oculi cordis*.³⁶³ In Christian doctrine, this passage was commonly associated with the attainment of the beatific vision of God, when we see the Creator “face to face”. As Augustine remarked, “no Christian doubts that it is with those eyes of the heart, or mind, that God will be seen, when he is seen”.³⁶⁴ To see God with the eyes of the heart was, in effect, to apprehend His undistorted reflection in our soul, the *verbum cordis*. Significantly, a similar allusion appears in *Monas hieroglyphica*. As Dee remarks, the Monas symbol was a “magical parable” (*Magica Parabola*) meant to be contemplated by those select few “whose eyes reside in their hearts”, rather than by those common men “whose hearts are yet projecting from their eyes”. By studying the symbol, these chosen ones would experience how “the hieroglyphical interpretations fall into place most gently and, as it were, of their own accord”, causing an increasingly profound understanding of the principles underlying all sciences.³⁶⁵

Emblematics and the Book of Nature

Despite the emphasis that many scholars laid on the Neoplatonic background, however, we should not assume that there existed some monolithic “theory” behind early modern hieroglyphics. The impact that the discovery of these supposedly ancient characters had on European scholarship made itself felt far outside the boundaries of Neoplatonic philosophy. For example, in his *Of the Dignity and Advancement of Learning*, Francis Bacon (1561-1626) contrasted “natural” signs, having “some congruity with the notion”, with “conventional” symbols, “adopted and agreed upon at pleasure”, claiming that of “the former kind are Hieroglyphs and Gestures”. Both gestures and hieroglyphs, he argued, are signs that bear “some similitude to the things signified, and are a kind of emblems”.³⁶⁶ What Bacon referred

³⁶³ Ephesians 1:17-18: “Deus, Domini nostri Iesu Christi, pater gloriae, det vobis spiritum sapientiae et revelationis, in agnitione eius: illuminatos oculos cordis vestri, ut sciatis quae sit spes vocationis eius, et quae divitiae gloriae hereditatis eius in sanctis”. Cf. also Matthew 5:8. For discussion of the recurrent use of this simile in early modern emblematics, see Bath, *Speaking Pictures*, pp. 166-168.

³⁶⁴ Augustine, *Concerning the City of God*, 22.29, p. 1084.

³⁶⁵ Dee, *Monas hieroglyphica*, pp. 134/135, 184/185, 122/123.

³⁶⁶ Bacon, *Of the Dignity and Advancement of Learning*, pp. 439-440. For a discussion, see Elsky, “Bacon’s Hieroglyphics and the Separation of Words and

to, however, was not their correspondence to the Platonic realm of Ideas, but merely their function as pictorial representations.

Bacon's notion of hieroglyphics was, in fact, firmly rooted in a Aristotelian view of signification. According to this view, hieroglyphs were not "natural" characters that "embodied" divine essences and accurately represented the world of divine Ideas, but simply visual metaphors for human conceptions and ideas. As Robert Klein argued in a classic essay, this view was commonly used as a theoretical basis for the enormously popular offshoot of Renaissance hieroglyphics evolving in the sixteenth century, emblematics.³⁶⁷ In the *Hypnerotomachia* of Francesco Colonna, published as early as 1499, the hieroglyphs had been provided with accompanying texts, and in 1521 the *Emblemata* of Andrea Alciati begun to circulate in manuscript form, gaining considerable popularity before it was published in 1531. In this work the visual images were provided with a short motto, as well as a slightly longer epigram, which together with the picture was intended to spark off a sudden and pleasing insight into the meaning of the emblem, in most cases a traditional lecture on morality (fig. 12).³⁶⁸

Emblematics soon evolved into a fashionable form of entertainment in distinguished circles, in the same time losing much of the metaphysical dimension which had originally incited the interest in hieroglyphics. Often the emblem was regarded as an elegant way of expressing traditional moral lectures, as a conceit invented by the human mind, bearing no relation to the Neoplatonic realm of Ideas. As Robert Klein categorically asserted, the Renaissance emblem "was linked with a particular Aristotelian doctrine which concerned solely the functions of the mind; it had no metaphysical pretensions and assumed no 'real' efficacy of symbols".³⁶⁹

Things".

³⁶⁷ Klein, "The theory of figurative expression in Italian treatises on the *Impresa*".

³⁶⁸ The literature on Renaissance emblematics is vast, but for a classic study see Mario Praz' *Studies in Seventeenth-century Imagery*. For a recent and comprehensive discussion, see Bath, *Speaking Pictures: English Emblem Books and Renaissance Culture*.

³⁶⁹ Klein, "The theory of figurative expression in Italian treatises on the *Impresa*", p. 21.

In fordidos.



Que rostro (clyst. re uclui) sibi proluit aluum
 Ibis, Nilivæ cognita littoribus,
 Transijt opprobrij in nomen. quo Publius hostem
 Naso suum appellat, Battiadès que suum.

Fig. 12. "Disgusting people", symbolized by the ibis washing its bowels using its beak as a syringe. From Andrea Alciati, *Emblemata*, 1550, p. 95.

Klein's essay was a direct response to Ernst Hans Gombrich's famous account of how the Renaissance use of symbolic images was dependent on the Neoplatonic conception of the world as a *mundus symbolicus*, through which the image gained its power to "embody" or "participate in" the realm of divine Ideas.³⁷⁰ And to some extent Klein's critique was undoubtedly justified, as it is clear that emblematics was not generally discussed within a Neoplatonic framework. Yet the extreme positions taken in this debate tell us more about modern historiography and its fondness for encompassing models of explanation than about sixteenth-century realities. For, as Michel Bath has recently argued, the Neoplatonic and Aristotelian views were not always treated as mutually exclusive theories and in many Renaissance accounts the two views are presented as reconcilable and complementary.³⁷¹ An illustrative example is the opening paragraph of John Hoskins' unpublished text *Directions for Speech and Style* (1599), in which we find Hoskins beginning with a conventional rendering of the Aristotelian theory of expression, only to shift suddenly to a description of nature as laden with symbolism:

The concepts of the minde are pictures of things and the tongue is interpreter of those pictures. The order of gods creatures in themselves is not only admirable and glorious but eloquent, then hee that could apprehend the consequence of things in their truth and utter his apprehension as truly, were a right orator.³⁷²

In defining eloquence, the ability to accurately and truthfully express oneself, Hoskins moved freely from a textbook example of the Aristotelian view, defining it as the accurate interpretation of mental images, to an apparently Neoplatonic conception, stressing the reading of the Book of Nature as a necessary preparation for the "right orator".

The absence of a clear-cut demarcation between the Aristotelian and Neoplatonic views of signification is even more plain when we turn to early modern natural history. The fad for hieroglyphics and emblematics sweeping over Europe in the sixteenth century exerted a

³⁷⁰ Gombrich, "Icones Symbolicae: Philosophies of Symbolism and their Bearing on Art".

³⁷¹ Bath, *Speaking Pictures*, especially pp. 155-158.

³⁷² Hoskins, *Directions for Speech and Style*, as quoted in Bath, *Speaking Pictures*, p. 157.

tremendous influence on Renaissance natural history, fostering what William B. Ashworth has given the evocative term “an emblematic world view”.³⁷³ An illustrative example is Conrad Gesner’s (1516-1565) *Historia animalium*, published in four huge volumes between 1551 and 1558 and incorporating more than 4500 folio pages. Gesner introduced every description of a particular species with a comprehensive etymology, reflecting the Isidorian tradition in which the name was intimately linked to the essential identity of the animal.³⁷⁴ This was followed by careful accounts of the outer appearance of the animal (*forma*), its natural habitat (*victus*) and its behavior (*mores*). In the concluding category, however, denoted as *moralia*, Gesner turns away from physical nature and presents an abundance of material taken from the world of literature and art — Christian iconography, mythology, proverbs, Aesopian fables, ancient allegories, hieroglyphs and emblems — intended to elucidate the moral significance of the animal. In his chapter on the pelican, for instance, we find this species portrayed as it appears in Christian allegorical imagery: thrusting its beak into its own chest it feeds its children with its own heart’s blood, thereby gaining its role as a symbol of maternal love (fig. 13).

The moral and symbolic character of nature clearly had a significant role in shaping Gesner’s approach to natural history. As he wrote in the introduction, the scientific study of the animal world raises man “towards a contemplation and admiration of the works of God”. By treating the *virtutes et vitia* of the different species, they served as *exempla* and *documenta* to mankind, for “even in forming mans habit and virtues [*mores ac virtutes in homine formandi*] there is abundant

³⁷³ Ashworth, “Natural History and the Emblematic World View” and “Emblematic natural history of the Renaissance”. This aspect of early modern natural history has only recently been attended to on its own terms. While the “emblematic” strain has been observed by earlier historians, it has generally been linked to the medieval tradition of bestiaries, such as the famous *Physiologus*. The impact of hieroglyphics and emblematics, however, unknown in medieval culture, seem to be of great importance to understand the practices of early modern natural history. For such attempts, see also the essays of Wolfgang Harms, “On Natural History and Emblematics in the 16th Century” and “Bedeutung als Teil der Sache in zoologischen Standardwerken der frühen Neuzeit”.

³⁷⁴ On this, see Harms, “On Natural History and Emblematics in the 16th Century”, especially p. 71. For a discussion of Gesner’s views on language as they appear in his *Mithridates* (1555), see Metcalf, “The Views of Conrad Gesner on Language”.



Fig. 13. Allegorical illustration of the pelican. From Conrad Gesner, *Historia animalium*, 1558.

illustrating material and proofs from the animal world..."³⁷⁵ As Wolfgang Harms has aptly remarked: "Any formulation of a concept of 'reality' to be found in Gesner's zoological work (which in the Latin original was the standard reference work of the 16th century) would inevitably include the dimension of meaning."³⁷⁶

Turning to Gesner's follower Ulisse Aldrovandi (1522-1605), we find this approach to natural history pursued almost to excess. In his thirteen massive volumes on the natural world, the literary material has expanded into the by far most voluminous category. Fables, epi-

³⁷⁵ I am here following the English translation of Gesner's "Epistola Nuncupatoria" to the first volume of *Historia animalium* in Gmelig-Nijboer, *Conrad Gessner's "Historia Animalium"*, pp. 149-155. The inserted Latin is from Gesner, *Historia animalium*, sig. a3^r.

³⁷⁶ Harms, "On Natural History and Emblematism in the 16th Century", p. 71.

thets, allegories, proverbs, mysteries, mythologies, symbols, riddles, devices, coinage, heraldic signs, dreams, statues, emblems, hieroglyphs, monsters, prodigies, historical facts and gods dedicated to the animal are presented as a vast web of associations enveloping every particular species. According to William B. Ashworth, Aldrovandi's works are the most flagrant expression of an "emblematic world view", based on "the belief that every kind of thing in the cosmos has myriad hidden meanings and that knowledge consists of an attempt to comprehend as many of these as possible". To uncover these meanings it did not suffice to study the physical appearance and behaviour of the animals: it required a comprehensive recapitulation of the symbolic values and meanings they had been attributed in the course of human history.³⁷⁷

Both Gesner's and Aldrovandi's works reflect the notion of nature as a "book" proclaiming the Wisdom and Word of God, a notion that had been a commonplace since the early Middle Ages. Yet the emblematic strain in early modern natural history grew increasingly salient in the latter half of the sixteenth century, a phenomenon that Ashworth attributes to the sudden impact of hieroglyphs and the various forms of symbolic expressions evolving in their wake. The discovery of these supposedly ancient symbols encouraged the reading of the natural world as a form of living hieroglyphs: the animals "became part of a visual language; they were symbols, but even more, they were Platonic ideas, whose meaning the mind could immediately perceive".³⁷⁸

Yet Ashworth's evocative account of the "emblematic world view" raises more questions than it answers. Far from constituting a monolithic "world view", this label covers an extremely heterogeneous field of interpretive practices by which the meaning of natural phenomena were uncovered. Neither Gesner nor Aldrovandi can be termed "Platonists", nor, for that matter, did they regard the creatures of nature as "Platonic ideas whose meaning the mind could immediately perceive", as Ashworth phrases it. To these scholars, the symbolic dimension of nature was something that was uncovered and expressed solely through the accumulation of *literary* material. The

³⁷⁷ Ashworth, "Natural History and the Emblematic World View", p. 312. Ashworth makes no secret of his dependence on Michel Foucault's *Les Mots et les choses* in his characterization of the "emblematic world view," though renouncing the structuralistic approach and monolithic character of Foucault's *épistémè*.

³⁷⁸ Ashworth, "Natural History and the Emblematic World View", p. 308.

question posed by Gesner's and Aldrovandi's works — a question which as yet remains unanswered — is what status and function this amassment of mythological facts and fictions had in relation to tangible nature; how the use of textual material was legitimized, and what status of “truth” it was ascribed in relation to empirical knowledge.

Turning to Nicolaus Taurellus' emblematic work *Emblemata physico-ethica* (1595), however, we find a view of nature that closely parallels Ashworth's description. Taurellus, who was professor of medicine in Basle, introduces his work by claiming that the moral devices he presents do not only concern the “emblematis” (*emblematicus*), but also the natural scientist (*physicus*) and the philosopher (*philosophicus*).³⁷⁹ Many of the emblems in his work were in fact based on his own experiences of the moral lectures manifested by nature. For example, in a solitary ear of corn, empty on seed but rising above the other straws of the cornfield, Taurellus beheld a warning against fruitless scholarship and its presumptuous overestimation of its knowledge, as well as a tribute to the true scholars who bowed under the weight of their task, thereby remaining protected from assuming pride (fig.14).³⁸⁰

Taurellus defined emblematics as the pictorial representation of virtues and vices manifested by the works of God and nature, which man could apply to human use by means of “proper contemplation”.³⁸¹ Thus, the moral lectures of nature were not a result of the spectator's imagination. Instead, the moral lesson or natural phenomenon that constituted the *res* of an emblem was offered by nature itself: it was a “sacred sign” (*sacrum signum*) that “truly and really exists and by its unfailing essence influences our sensual perception”.³⁸² Invoking Joshua 24:17, which states that God has put “great signs in our sight”, Taurellus asserted that the “usefulness of natural things consists in their signification” — a signification or “sacred virtue” residing not in the external matter of things, but in the inner

³⁷⁹ Taurellus, *Emblemata physico-ethica*, (ed. 1602) sig. a8^r. For a discussion of this work, see also Harms, “On Natural History and Emblematics in the 16th Century”.

³⁸⁰ Taurellus, *Emblemata physico-ethica*, Emblem no. A5.

³⁸¹ Taurellus, *Emblemata physico-ethica*, sig. b^r: “Emblemata ergo (de quibus hic agimus) moralium sunt virtutum aut vitiorum in variis DEI & naturae operibus expressae picturae: quas recte contemplati ad usus nostros magna cum voluptate accommodamus.”

³⁸² Taurellus, *Emblemata physico-ethica*, sig. b3^v: “At natura tamen res nobis offert, quae vere sunt, certoque & stabili essentiae suae modo nostros afficiunt sensus.”

Levitare superbit, & extat.
Ad Christophorum Paulum Gugel Norib.



*Cernis ut optatis fecunda est messibus aëtas:
 Et dominum quanto scœnore ditet ager.
 Una sed ecce alias supereminet inter aristas:
 Quæ celsa erectum tollit ad astra caput.
 Scilicet hæc multis, at inanibus aucta locellis
 Effertur: dum nil quo retrahatur, habet.
 Quem levis assurgens effert doctrina, superbit.
 Nam scit, qui doctum se putat esse, nihil*

Fig. 14. Cornfield as an emblem of academic vanity. From Nicolaus Taurellus, *Emblemata physico-ethica*, 1595, no. A5.

workings of the “Holy Spirit”.³⁸³ As he explained, the subject of an emblem, that is, the *res* of nature, had three aspects: “the *materia* is natural, the *forma* is moral, and the exterior ornamentation poetic”.³⁸⁴ What Taurellus seems to suggest is that the inner essence, or *forma*, of a natural phenomenon included a moral dimension which the beholder could grasp by contemplating nature.³⁸⁵ Taurellus acknowledged that human observation of nature was a potential source of error and that man’s comprehension of these meanings were not always satisfactory, but through a “true contemplation of God’s works” we could be led to “perfect deeds of virtue”.³⁸⁶

Taurellus’ reliance on Aristotelian concepts when describing the symbolic character of nature is significant. Like Gesner and Aldrovandi he was no adherent of Platonic philosophy, seeking instead to develop a Christian philosophy which reconciled biblical revelation with the Aristotelian world view.³⁸⁷ A similar example is Henry Estienne’s account of the history of hieroglyphs. Referring to the same biblical passage as Taurellus, Estienne claimed that God had imprinted certain “Symboles and marks of his Divinity” into the souls of the ancients by letting the *species* — that is, the active power of the *forma* — influence their perception:

’Twas for the same reason that so many objects which presented themselves to the view of *Adam, Enoch, Moses,* and other Patriarchs, were as so many Characters illuminated by

³⁸³ Taurellus, *Emblemata physico-ethica*, sig. b6^r: “Atque hi rerum naturalium usus in significatione consistunt. Nam quod de sacramentorum virtute dici posset: id rerum externarum non est, sed internae Sancti Spiritus operationis.”

³⁸⁴ Taurellus, *Emblemata physico-ethica*, sig. a8^r: “...materia physica est, formaque moralis, et ornatus exterior poeticus est.”

³⁸⁵ Wolfgang Harms interprets the term *forma* as referring to the physical appearance of the natural object. However, given Taurellus’ emphasis on the inner quality of the signification or “sacred sign”, it seems more plausible that he uses the terms *materia* and *forma* in the common Aristotelian sense, in which *forma* denotes the inner nature or essence of an object. Cf. the passage quoted in note 33.

³⁸⁶ Taurellus, *Emblemata physico-ethica*, sig. b3^r: “...quae nos à vera operum DEI contemplatione, & voluntatis eius cognitione ad perfecta virtutum opera deducit.”

³⁸⁷ See Lohr’s discussion in *The Cambridge History of Renaissance Philosophy*, eds. Schmitt and Skinner, pp. 622-624.

the Divine splendour, by means whereof the Eternall Wisdom did consign his name into the heart of man.³⁸⁸

Though both Taurellus and Estienne couched their accounts in Aristotelian terms, they grounded the representative functions of hieroglyphs and emblems in the notion of nature as symbolically structured, describing these symbols in terms remarkably similar to Iamblichus' Neoplatonic account — as a means by which God's Wisdom could be apprehended by the human mind.

The mimetic metaphor

Dee's interest in natural history was clearly only moderate, and despite his attempts to lay the foundations for a "universal" science his fascination for the living creatures of nature was restricted to occasional remarks in his personal diary: "Sept. 2nd [1595] the spider at ten of the clock at night suddenly on my desk, and suddenly gon; a most rare one in bygnes and length of feet. I was in a great study at my desk."³⁸⁹ Travelling through Zürich in 1563, however, he made sure to visit Conrad Gesner, and later in the same year he paid a visit to Ulisse Aldrovandi, with whom he had an interesting conversation on the remarkable properties of the salamander.³⁹⁰

Yet the previous examples are important in that they demonstrate the enormous scope of interpretive possibilities that existed within the "emblematic world view". The range of differing views on how the Book of Nature should be "read" was to a large extent due to the absence of a monolithic theory stating how nature "signified". Instead, the various practices employed to uncover the meaning of natural phenomena were grounded in the metaphoric conception of nature as an "expression" or "text", a conception which could be accommodated to different philosophical frameworks. Nicolaus Taurellus' reading of a cornfield as a divinely instituted emblem, for example, was not bolstered by a coherent theory of signification. Rather, it was the notion of nature as an "expression" of God's under-

³⁸⁸ Estienne, *The Art of Making Devises*, p. 2. Cf. Nicolaus Caussin, *Symbolica aegyptiorum sapientia* (1618), sig. a.iiij^r, from which this passage is largely derived.

³⁸⁹ Dee, *The Private Diary*, p. 53.

³⁹⁰ Dee signed Gesner's *Liber amicorum* on 23 April 1563, see Josten's "Introduction" to *Monas hieroglyphica*, p. 87. On his conversation with Aldrovandi, see Harkness, *John Dee's Conversations with Angels*, p. 62.

lying Wisdom which enabled him to use the Aristotelian concepts of *materia* and *forma* as analogous to the distinction between sign and signified.

This analogy was, of course, rooted in the commonplace notion that nature was a result of a *mimetic* process. As la Primaudaye wrote, “each worke liveth in the minde of the workman before he puts it in practise. So had the world perfect beeing, in the thought of God before it was builded”.³⁹¹ The divine creation of nature was, in effect, conceptualized as the creation of an image in which the intellectual “meaning”, or essence, preceded its material “expression”. In a famous passage Plutarch (c. 45-120) put it thus: “*Idea* is a bodiless substance, which of it selfe hath no subsistence, but giveth figure and forme unto shapelesse matters, and becometh the very cause that bringeth them into shew and evidence.”³⁹² Likewise, Thomas Tymme described the inner essence of a natural object as the “secret and inward beginning of procreation and off-spring”, constituting the origin and active force of the thing, and remarked: “To this *Nature* certaine matter is added: as to the forming of an Image, wood or metall must be put...”³⁹³

The mimetic metaphor was essential to bolster the notion that pictorial language could function as a true representation of God’s Wisdom. As S. K. Heninger has aptly put it, the symbolically structured universe was not only viewed as a metaphor *by* God, but also as a metaphor *for* God; a “metaphor created by God, translating His archetypal idea into a palpable form, and also a metaphor for God, providing us with a means of knowing him”. Thus, by employing the “technique” as well as “the subject matter of God’s metaphor” man could create “true” metaphors, capable of illuminating our understanding of the Creator.³⁹⁴

The mimetic metaphor could also be exploited to forge conceptual links between nature and ordinary written language. An illustrative example is provided by Alexander Top’s treatise *The Oliue Leaf: or, Vniuersall Abce* (1603). Top introduced his tract by rhetorically posing the question whether the letters of the common Latin alphabet

³⁹¹ la Primaudaye, *The Third Volume of the French Academie*, p. 5.

³⁹² Plutarch, *The Philosophie, commonlie called, The Morals*, p. 813.

³⁹³ Tymme, *A Dialogue Philosophicall*, p. 2.

³⁹⁴ Heninger, *Touches of Sweet Harmony*, pp. 327, 340.

are a human invention or a creation of God, readily giving the answer:

there was but one [alphabet]; and that one, of God himselfe, the true *Hagiography* or *Hieroglyphs* of our first Fathers; to wit, the two and twentie severall vncorrupted Formes or Letters of the *Hebrew* tongue: Which being graunted the eldest, consequently must be thought the Mother and very Matrix of all other; so that the authoritie of all *Abces* ryseth from hence, as this from God.³⁹⁵

Though Top's claim that the common Latin letters were derived from the Hebrew alphabet was substantiated by a conventional rendering of the *confusio linguarum* at the Tower of Babel,³⁹⁶ he also extended their dimension of significance to include hidden, "hieroglyphic" meanings. As he stated, God had by his "Word of life" created everything "for Signes" which spoke to our understanding as well as our senses: "as the vpper face of any thing contented the sense, so the inward proprietie with due cogitation, should content the hart", so that "both sense and vnderstanding" might be illuminated "by comparing the substance with the pourtrayture".³⁹⁷

Since both language and nature were creations of God, this hidden dimension of meaning was equally present in the letters of the alphabet as it was in the living creatures. In Top's view, the Hebrew alphabet, "the Mother and very Matrix" of all alphabets, was the result of a parallel divine act of creation, exactly corresponding to the creation of the physical universe. Noting that God created twenty-two things in the first week of Genesis — that is, the exact number of letters in the Hebrew alphabet — he concluded that "euery of these seuerall *Hebrew* letters, should signifie or import some speciall workmanshyps of the Lordes Creation". For each particular entity God created, He had simultaneously "created the figure, signe, or letter, of the Heavens &c. Or the very hieroglyphs of them..."³⁹⁸ Elaborating the biblical account of Adam's naming of the animals, Top then went on to explain how Adam had combined the twenty-two Hebrew letters to bestow every creature its "proper *Name*" when

³⁹⁵ Top, *The Oliue Leafe*, sig. A4^v.

³⁹⁶ Top, *The Oliue Leafe*, sigs. C1^v-C2^v.

³⁹⁷ Top, *The Oliue Leafe*, sig. B2^r.

³⁹⁸ Top, *The Oliue Leafe*, sigs. B2^r-B2^v.

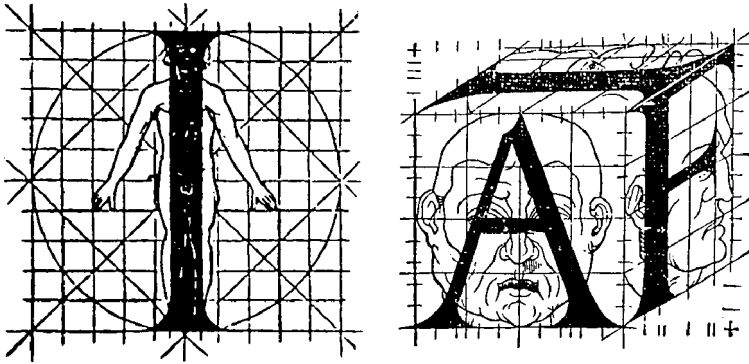


Fig. 15. The Latin letters proportioned according the human body. From Geofroy Tory, *Champ Fleury*, 1525, fols. 18^r and 24^v.

“the *species* and *personages* of things grew so abundant and so divers” that the individual letters were not sufficient.³⁹⁹

Top’s account provides an illustrative, if unusual, example of how the ambiguities of the biblical narrative of the Creation and Adam’s naming of the animals could be exploited to bolster the notion of ordinary written language as reflecting the creative principles of God. Coupled with the notion of nature as laden with symbolic meanings, this narrative allowed Top to treat all alphabets derived from Hebrew as “hieroglyphic” characters, manifesting God’s Wisdom in their very graphical shapes. By restoring the perfect proportions of the Latin letters, he claimed, he would not only “upright language” but also “cleare [our] sense” and force the “Deluge of the deepe Confusion” to “ebb”.⁴⁰⁰

In some respects, Top’s views paralleled Dee’s conceptions in *Monas hieroglyphica*, in which Dee claimed that the Latin, Greek and Hebrew alphabets had been created by God alone in accordance with the “law of creation”, *lex Creationis*. Dee also attributed to the letters of these alphabets meanings that transcended their significance in ordinary written language, making their graphical shapes subject to numerological interpretations that revealed their correspondence to the divine principles of creation. This latter feature was in keeping with a rapidly expanding genre of literature that followed in the wake

³⁹⁹ Top, *The Oliue Leafe*, sig. C3^r.

⁴⁰⁰ Top, *The Oliue Leafe*, sig. A3^v.

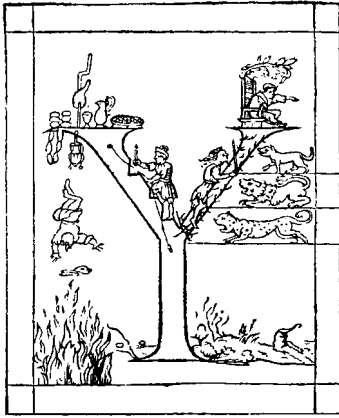


Fig. 16. The Pythagorean Y. From Geofroy Tory, *Champ Fleury*, 1525, fol. 127^v.

of the printing revolution, devoted to the “true” and “accurate” proportions of letters. A number of distinguished Renaissance scholars, such as Luca de Pacioli, Sigismondo dei Fanti, Albrecht Dürer and Gerard Mercator, composed extensive treatises on the proper geometrical principles of the alphabet, to various extents grounding their views in metaphysical and philosophical notions.⁴⁰¹

A colourful expression of the early modern interest in the alphabet is the *Champ Fleury* (1529) of Geofroy Tory (1480-1533), a work which Dee owned when writing *Monas hieroglyphica*.⁴⁰² Claiming that the entire Latin alphabet was modelled on the human body (fig. 15), Tory proposed to restore the “divine perfection” of the letters,⁴⁰³ simultaneously making each one of them subject to intricate allegorical interpretations. Relying on classical authors like Homer, Virgil, Horace and Cicero, Tory described the letters of the alphabet as ancient emblems, manifesting moral lectures and truths. In the letter Y, for instance, Pythagoras had incorporated a sharp-witted allegory on the cross-roads of life, the point when we choose between the primrose way of pleasure and the narrow path of virtue — and the fruits these different paths yield (fig. 16).⁴⁰⁴ Similarly, when likening the seven holes in the flute of Apollo to the seven liberal arts, Virgil had also made an ingenious allusion to the letter I. For being composed by the most simple geometrical element, the line, this letter constituted the foundation of the entire alphabet, and, consequently, of all

⁴⁰¹ For an elegant bibliography, containing a selection of facsimile reproductions of the plates from different works, see Ryder, *Lines of the Alphabet in the Sixteenth Century*.

⁴⁰² This work is included in Dee’s library catalogue of 1557 (Roberts and Watson (eds.), *John Dee’s Library Catalogue*, no. B144). On Tory in general, see Iversen, *The Myth of Egypt and its Hieroglyphs*, pp. 80-81.

⁴⁰³ Tory, *Champ Fleury*, fol. 23^v.

⁴⁰⁴ Tory, *Champ Fleury*, fols. 63^r-63^v.

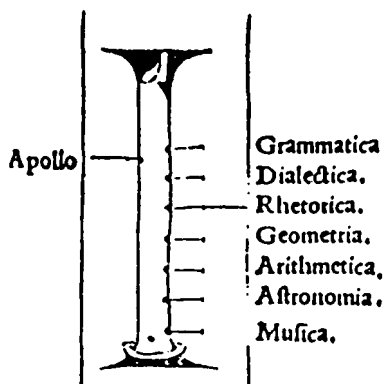


Fig. 17. The “flute of Virgil”. From
Geofroy Tory, *Champ Fleury*, 1525, fol.
16^r.

the arts and sciences (fig. 17).⁴⁰⁵
Likewise, in his famous allegory
of the Golden Chain, linking
heaven to earth, Homer had
alluded to the letter I, teaching us
that the letters and sciences could
not have been invented without
divine inspiration (fig. 18).⁴⁰⁶

Allegorical imagery and the wisdom of the ancients

Tory’s elaborate account of the Latin alphabet has few, if any, rivals in the vast Renaissance literature on letters. In his reliance on ancient allegorical imagery, however, he can be seen as emblematic of early modern scholarship. Whether we turn to Platonic, “occult” or humanistic scholars, we find that allegories, metaphors and parables were used, not as mere tropes of imagined relationships, but as privileged modes of expression, capable of representing reality in a “true” and “accurate” form.

The intimate kinship between allegorical language, hieroglyphs and emblems that Tory’s work exemplifies is a pervasive theme in early modern scholarship, closely linked to the notion of a perennial philosophy. The widespread belief that the hermetic texts had originally been engraved in hieroglyphs on Hermes’ legendary “pillars” implied that the allegorical language in these texts was a result of their translation from a pictorial mode into Greek. Conversely, scholars who were reluctant to attribute the invention of these characters directly to the Egyptians often traced the origin of hieroglyphs to the allegorical language of the biblical prophets.⁴⁰⁷

⁴⁰⁵ Tory, *Champ Fleury*, fols. 15^v-16^r.

⁴⁰⁶ Tory, *Champ Fleury*, fol. 25^v.

⁴⁰⁷ See, for instance, Caussin, *Symbolica aegyptiorum sapientia*, sig. a.iiij^r; and Estienne, *The Art of Making Devises*, pp. 2-3.

Allegorical language had, of course, a fundamental role in biblical exegesis. In his treatise *The Divine Names*, in which the Christian exegetical techniques were comprehensively set down, Pseudo-Dionysius described how God's attributes are presented in Scripture under the "sacred veils" of symbols. Although unattainable to human comprehension in himself, God has made himself known to man by letting "things derived from the realm of senses" symbolize His ineffable properties.⁴⁰⁸

Pseudo-Dionysius' views of biblical exegesis were heavily influenced by Neoplatonic conceptions and by the allegorical theory of art developed by the later Neoplatonists, a theory describing how *literary* allegory could be used as a "truthful" mode of expression by making use of the symbolism inherent in the universe itself.⁴⁰⁹

This theory of literary allegory, based on the notion of the cosmos as a mimetic expression of the Creator's Wisdom, assumed an important role in Renaissance Neoplatonism. In his *Heptaplus* Pico della Mirandola vividly described the world as a hierarchy "bound together both by a certain harmonious kinship of nature and by regular series of ranks", forming a continuous chain of corresponding levels or spheres. "From this principle", he wrote, "flows the science of all allegorical interpretation":

The early Fathers could not properly represent some thing by the images of others unless trained, as I have said, in the hidden alliances and affinities of all nature. ... they aptly symbolized the natures of one world by those which they knew corresponded to them in other worlds.⁴¹⁰

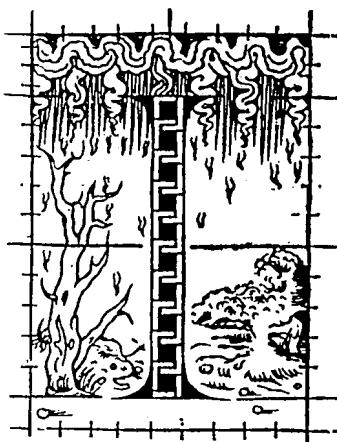


Fig. 18. The Golden Chain of Homer. From Geofroy Tory, *Champ Fleury*, 1525, fol. 26^r.

⁴⁰⁸ Pseudo-Dionysius, *The Divine Names*, 592B, in *The Complete Works*, p. 52.

⁴⁰⁹ For an elucidative study, see Coulter, *The Literary Microcosm: Theories of Interpretation of the later Neoplatonists*.

⁴¹⁰ Pico della Mirandola, *Heptaplus*, pp. 78-79.

Thus, when Moses described divine entities “figuratively now as stars, now as wheels and animals, now as elements”, he made use of the natural correspondences between the different spheres of creation. In this way, wrote Pico, Moses had “buried the treasures of all true philosophy as in a field”, making it possible for man to fathom truth through techniques of scriptural exegesis.⁴¹¹

Though Scripture had an unprecedented status as God’s revealed Truth, the myth of a *philosophia perennis* made it possible to interpret ancient allegorical literature from a similar perspective. In his monumental and immensely popular work *Mythologia sive explicationis fabularum libri decem* (1551), Natale Conti presented a wealth of ancient myths and fables, claiming that “the universal precepts of philosophy were enclosed by the ancients within these very fables. In fact, not many years prior to the time of Aristotle, Plato and other philosophers, all the doctrines of philosophy were handed down, not openly but obscurely, under a certain veil.”⁴¹² Similarly, in his *Mythomystes* (1632) Henry Reynolds described ancient poets like Apuleius, Orpheus and Homer as the “nurses of wisdom, from whose pregnant breasts the whole world hath suckt the best part of all the humane knowledge it hath”. From these poets all subsequent philosophers had taken “their grounds and *initia Philosophandi*”, he argued, for in their “wise and excellent fables” the ancients had expressed “the Reall Forme and Essence” of all things. Hence we should “be at paines of running through all the Fables of the Auncients, and out of them shew the reader, and leade him by the finger as it were ... to the speculation of the entire Secret of our great God of Nature, in his miraculous fabrick of this World...”⁴¹³

Cultural narratives of the wisdom of the ancients thus legitimized the use of literary sources in natural philosophy and fostered interpretive approaches which focused on ancient texts as “shrouded” accounts of the secrets of nature. Framed by such narratives, however, the ancient use of allegory could also be detached it from its original

⁴¹¹ Pico della Mirandola, *Heptaplus*, pp. 78, 71.

⁴¹² Conti, *Mythologia*, p. 1: “...universa philosophiae precepta sub his ipsis fabulis antiquitus continebantur: quippe cum non ita multis annis ante Aristotelis, Platonis & caeterorum philosophorum tempora, omnia philosophiae dogmata non aperte, sed obscure sub quibusdam integumentis traderentur.” Dee owned a copy of this work (now London, Royal College of Physicians, shelfmark D130/9, 19a) but it contains no annotations.

⁴¹³ Reynolds, *Mythomystes*, sigs. A3^{r-v} and pp. 14, 20, 66-67.

Neoplatonic context, gaining a much wider validity. In his *Arte of English Poesie* (1589) George Puttenham referred to the ancient poets as the first true philosophers, describing them as “the first obseruers of all naturall causes & effects in the things generable and corruptible”. From the observation of these natural causes and effects, he continued, they had “mounted vp to search after the celestiall courses and influences, & yet penetrated further to know the diuine essences and substances...”⁴¹⁴ Whereas Puttenham’s assertion that the classical poets had “mounted up” to comprehend the “diuine essences and substances” has an unmistakable Platonic ring, the voice of Aristotle is clearly echoed in his remark about “things generable and corruptible”. Again, Platonism and Aristotelianism were treated, not as mutually exclusive traditions, as but different expressions of an original *prisca sapientia*, revealed through the literature of the ancient poets.

The enormous extent to which belief in the ancient wisdom could inform scientific practices and legitimize the use of literary sources in the natural sciences can be exemplified by the works of Francis Bacon and Isaac Newton. Bacon explicitly renounced the idea that the myths of the ancients were based on the doctrine of correspondences, describing them instead as “resemblances and examples” which the ancients had used because the minds of men “were hardly subtle enough” in antiquity to understand proper arguments — “as hieroglyphics were before letters, so parables were before arguments”.⁴¹⁵ Nevertheless, he attached to ancient literature an important role in the natural sciences, devoting his entire *De Sapientia veterum*, “On the Wisdom of the ancients” (1609), to these myths, which he regarded as expressions of an elevated but since long lost knowledge of the natural world. Almost a century later, in 1694, Isaac Newton informed his friend David Gregory that he was preparing a new edition of the *Principia*, revised, as Gregory wrote in a letter, to demonstrate that “the most ancient philosophy is in agreement with this hypothesis of his ... because the Egyptians and other taught the Copernican system, as he shows from their religion and hieroglyphics and images of the Gods...”⁴¹⁶

⁴¹⁴ Puttenham, *The Arte of English Poesie*, I.4, p. 9.

⁴¹⁵ Bacon, *On the Dignity and Advancement of Learning*, pp. 316-317.

⁴¹⁶ McGuire and Rattansi, “Newton and the ‘Pipes of Pan’”, p. 110.

trine and very pleasing effects” of his symbol.⁴¹⁸ To fully comprehend the secrets of the “Hieroglyphic Monad”, the interpreter had to be one of those men whose “eyes reside in their hearts”, a divinely inspired one like Dee himself.

Dee’s emphasis on the necessity of divine inspiration to fathom his work was in keeping with a longstanding tradition in esoteric writings. In his well-known alchemical work *Pretiosa margarita novella* (c. 1330), Petrus Bonus asserted that no one could truly comprehend the allegorical imagery of alchemy if he was not subject to *inspiratio divina* or instructed orally by the *initiati* — or, as Dee noted in the margin, aided “Eyther by M[ou]th or reuelation”.⁴¹⁹ Likewise, Pierre de la Primaudaye claimed that the ancients had been able to create their allegories by being “inspired with the same spirit, that not onely knoweth all things, but did also make all things”, adding that “the grace of the same spirit” is necessary to “vnderstand, and directly interpret such significations and allegoricall meanings”.⁴²⁰

In the Platonic tradition, this notion was intimately tied to the concept of *furor divinus*, or “divine frenzy”, a conception stemming from Plato’s dialogue *Phaedrus*.⁴²¹ Plato described *furor* as a supernatural force stemming from the higher spheres which takes possession of the human soul and transports it to the divine realm. This notion was grounded in his conception of *anamnesis*, the recollection of the divine Truth that man bears innate in his mind. Possessed by divine frenzy, Plato claimed, man could be brought to remember the divine Intelligence in whose image he had been created, thereby rising his mind to a comprehension of the divine Ideas. In his brief commentary on the subject, *De divino furore*, Ficino drew attention to Plato’s assertion that “men never remember the divine unless they are stirred by its shadows or images ... which are perceived by the bodily senses”. Referring to Romans 1:20, Ficino stated that by perceiving “the reflection of the divine beauty” — natural objects, music and poetry — man’s soul could become “possessed” by a divine frenzy and be brought to the recollection of divine Truth. Ultimately, he would comprehend the “natures of all things” — what Plato had sometimes

⁴¹⁸ Dee, *Monas hieroglyphica*, pp. 144/145.

⁴¹⁹ Petrus Bonus, *Introductio in divinam chemiae artem* (London, Royal College of Physicians, shelfmark D 107/3, 7c), p. 87.

⁴²⁰ la Primaudaye, *The Third Volume of the French Academie*, p. 67.

⁴²¹ Plato, *Phaedrus*, 244-250, pp. 465-487.

called “‘ideas’, sometimes ‘divine essences’, and sometimes ‘first natures which exist in the eternal mind of God’”.⁴²²

Though Dee did not allude explicitly to *furor* in *Monas hieroglyphica*, he clearly viewed the Monas symbol as a means to attain a form of Platonic *anamnesis* (though “Platonic” should in this context be understood in a wide sense). In the introduction to the work Dee applied the “Pythagorean Y”, a traditional symbol of the cross-roads of life, to illustrate the different levels of comprehension that man could attain (fig. 19). Distinguishing between the “tyrannos”, who had chosen the path of pleasure and earthly delight, and the “pneumaticos”, treading the virtuous path of knowledge and learning, Dee characterized the highest stage of knowledge as *adeptivus* — the stage when we have risen above the knowledge of the “fundamental truths of nature” and “celestial influences and events” and attained an “understanding of supracelestial virtues and metaphysical influences”.⁴²³ Though *Monas hieroglyphica* is curiously reticent about the actual meaning of the term *adeptivus*, the note “mens adepta” and “adeptivus” occurs frequently in the margin of works that Dee had in his possession. In his copy of Ficino’s Latin translation of the Greek *Corpus Hermeticum*, for instance, we find the well-known dictum *nosce teipsum*, “know thyself”, and the words *mens adepta* noted in the margin next to a passage describing how man comes to know God by knowing himself: “the one who knows himself passes into God”.⁴²⁴

Similarly, Dee made several notes on “mens adepta” in Ficino’s commentaries on Plotinus’ *Enneads*, in one instance next to an underlined passage describing how the “active intellect” (*intellectus agens*) illuminates our soul, enabling it to discover things previously unknown and perform miraculous works. This intellect, suggested Ficino, was what had raised Saint Paul and Moses to the beatific vision of God.⁴²⁵ The notion of the “active intellect”, stemming from

⁴²² Ficino, “*De divino furore* – On divine frenzy”, pp. 15–16. For the Latin text, see *Opera omnia*, pp. 612–615. A similar but more exhaustive account of *furor* can be found in Agrippa, *Three Books of Occult Philosophy*, III.46–51, pp. 618–635. For a valuable discussion of the different interpretations of *furor* in early modern philosophy, see Tomlinson, *Music in Renaissance Magic*, pp. 189–228.

⁴²³ Dee, *Monas hieroglyphica*, pp. 116/117.

⁴²⁴ Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage, fol. 113^v: “...*qui seipsum cognoscit, transit in deum*” (Dee’s emphasis).

⁴²⁵ London, Royal College of Physicians, shelfmark D 124/5, 17c (Plotinus, *De rebus philosophicis libri LIIII in enneades sex distributi*), fol. 22^v: “Sicut ergo

a brief and enigmatic passage in Aristotle's *De anima* (430a9-25), was a matter of heated debate in medieval and Renaissance philosophy, but generally it was understood as a "light" illuminating our mind and manifesting its innate principles to our thought. This was, for instance, the view of Roger Bacon, who attributed to the active intellect a central role in human intellection. The debate concerned whether the active intellect should be understood as an inherent capacity in the individual or as a separate entity existing externally to man, identical to a divine emanation or even God Himself. The latter position was maintained by the Averroists, who understood the *intellectus agens* as a single, separate substance which man joined in the act of intellection, an interpretation forcefully rejected by Thomas Aquinas, who laid emphasis on the individuality of the intellectual process. In early modern philosophy the range of differing interpretations widened even further and in some cases the rising influence of Platonism even led to the identification of the active intellect with Platonic *anamnesis*.⁴²⁶

To understand how Dee's Monas symbol could function as a contemplative means by which the mind could grasp the divine principles inherent in the human mind, however, we must turn to two closely interrelated themes of Dee's work: kabbalah and mathematics.

universalis natura, id est tota universi seminaria ratio praeest particulari naturae, id est, suae cuiusque viventis seminariae rationi, haec vero perpetuo praesidet mobilique generationis officio: sic intellectus communis & agens, intellectui proprio rursus agentis: hic autem rationi, quasi iam patienti, *ut inter agens commune* patiensque *proprium*, rite *proprium agens medium* sortiatur. Hinc itaque fit, ut animus ad summum quandoque in se revocatus *inveniat statim nondum inventa, & saepe vaticinetur*, & opera omnibus miranda perficiat: quippe cum *subito in mentem propriam revertatur*, quae divina quadam virtute pollet, cui omnia patent. [...] Ad hunc utique intellectum, velut ad tertium scilicet, intellectualem caelum super caelum imaginale, atque rationale Plotinus forsitan diceret, Paulum ascendisse: & Moysen in hunc montem, & eiusmodi angelum prophetis plurima nunciasset." (Ficino's commentary to *Enneads* I.4.9; Dee's emphasis). See also Dee's notes to Ficino's commentaries on *Enneads* I.5, fol. 26^v and *Ennead* IV, fol. 1^r.

⁴²⁶ For a valuable account of the active intellect in Arabic thought and Christian medieval philosophy, see Davidson, *Alfarabi, Avicenna, and Averroes, On Intellect: Their Cosmologies, Theories of the Active Intellect, and Theories of Human Intellect*. For later debates, see Kessler, "The intellectual soul", in *The Cambridge History of Renaissance Philosophy*, eds. Schmitt and Skinner, pp. 485-534.

The kabbalistic teachings⁴²⁷

That the exceedingly complex branch of Jewish mysticism known as kabbalah had a significant role in Dee's authorship has long been recognized. Meric Casaubon, the seventeenth-century compiler of Dee's angelic conversations, scornfully remarked that Dee was "a Cabalistical man, up to the ears ... as may appear to any man by his *Monas Hieroglyphica*, a book much valued by himself". As an avid defender of orthodox Christian faith, Casaubon regarded Dee's interest in kabbalah as yet another whim of a disoriented mind, wryly declaring that the Adamic language figuring in the angelic conversations "doth appear a very superstitious, foolish, fabulous writing; or to conclude in one word, Cabalistical, such as the devil might own very well, and in all probability was the author of".⁴²⁸ Despite Casaubon's flagrant hostility, however, many of his contemporaries viewed kabbalah as an immensely important body of teachings, completely in agreement with Christian faith. Even a clergyman like Dean John Gordon found it appropriate when delivering a sermon in the court in 1605 to invoke "certain hebrue characters, and other cabalisticall collections" to prove that both Protestant ceremonial and King James' kingship were in accordance with ancient prophecies.⁴²⁹

Though Jewish mysticism was far from unknown in Christian medieval culture, its influence on the Christian world reached a previously unrivalled level in the Renaissance, due to the expulsion of the Jews from Spain and Sicily following the fall of Granada in 1492. Among the many things the diffusion of Jewish culture brought to Christian scholars was a remarkable body of exegetical techniques which treated language as a means to gain knowledge of the divine.

⁴²⁷ This survey focuses on aspects relevant to Dee's work and makes no claim to be a comprehensive or even representative account of kabbalah as a whole, neither in its Jewish nor its Christian forms. For comprehensive studies of the Jewish kabbalah, see the classic works of Scholem referred to in the bibliography, as well as the more recent studies of Moshe Idel. For studies of Christian kabbalah, see the works referred to below in n. 438.

⁴²⁸ Dee, *A True & Faithful Relation*, Preface, sigs. E3^v, E4^r.

⁴²⁹ Hart, *Art & Magic in the Court of the Stuarts*, pp. 47-48. For a study of Christian kabbalah in the seventeenth century, focused on Mercurius van Helmont, Knorr von Rosenroth, Henry More and Anne Conway, see Coudert, *The Impact of the Kabbalah in the Seventeenth Century*.

The earliest kabbalistic works were written as commentaries on a short cosmogonical tract composed at some time between the third and seventh century AD, the *Sepher Yetzirah*, or “The Book of Creation”.⁴³⁰ This text provided Jewish scholars with many of the concepts that subsequently became central to kabbalistic teachings, including the notion of the ten *sephiroth*, a term that best can be rendered as “spheres” or “regions” emanating from the *En-soph*, “the endless” or innermost, supreme godhead. According to Gershom Scholem, the ten *sephiroth* can be described as the “fundamental attributes of God, which are in the same time ten stages through which the Divine life pulsates back and forth”.⁴³¹ The most important feature of the *Sepher Yetzirah*, however, was the correspondence it posited between the letters of the alphabet and the principles of creation. In a suggestive passage the *Sepher Yetzirah* describes how the divine Creator brought the universe into existence by using a form of “Alphabet of Nature”:

Twenty-two basal letters: He designed them, He formed them, He purified them, He weighed them, and He exchanged them, each one with all; He formed by means of them the whole creation and everything that should be created subsequently.⁴³²

Language was not merely the mirror of physical reality; it was the mould from which it was formed, the very instrument employed by God when creating the universe — a notion implying that reality itself could be understood as an essentially linguistic phenomenon.

The underlying basis of this cosmogony was constituted by the *logos* doctrine, which remained at the hub of the kabbalistic teachings evolving in the Iberian peninsula in the late Middle Ages. In the *Zohar*, the classic kabbalistic text which began to circulate in manuscript form around the year 1280, God’s uttering of the creative Word was described as the force bridging the chasm between the inner essence of the divinity and the physical universe: “God spoke — this speech is a force which at the beginning of creative thought

⁴³⁰ On *Sepher Yetzirah*, see Scholem, *Kabbalah*, pp. 21-30; and Scholem, *Major Trends in Jewish Mysticism*, pp. 75-78.

⁴³¹ Scholem, *Major Trends in Jewish Mysticism*, p. 205. For a lucid discussion of the concept of *Sefiroth*, see also Scholem’s *Kabbalah*, pp. 96-116. Cf. *Sepher Yetzirah*, I.2-9, pp. 21-22.

⁴³² *Sepher Yetzirah*, II.2, p. 24 (transl. Stenring).

was separated from the secret of *En-Sof*.⁴³³ Moreover, as in the Christian world view, the divine realm was believed to be accessible to man through the Word's incarnation in Scripture, the Jewish Torah. As Gershom Scholem put it, the kabbalists conceived of the Torah "as a vast *corpus symbolicum* representative of that hidden life in God which the theory of Sefiroth attempts to describe".⁴³⁴

Though Christian and Jewish metaphysics shared a common foundation in the *logos* doctrine, a significant difference separated kabbalistic teachings from Christian exegetical techniques. The Christian interpretation of Scripture had its basis in the theory of the four levels of meaning developed in the early Middle Ages, a theory describing how the sacred text simultaneously speaks in different modes or tropes. By reading Scripture on a literal, allegorical, metaphorical and anagogical level, the Christian exegete could gradually unfold the entire meaning of the words, while leaving the text itself intact. Kabbalistic teachings, by contrast, developed into a set of interpretive techniques aimed at uncovering the meaning of the Torah by literally reshaping and transforming the written text. Breaking it up into its constitutive elements, the Hebrew letters, and combining and permuting them according to certain methods, the kabbalist mimicked the creative act of God as it was envisaged in the *Sepher Yetzirah*, thereby gaining insight into the hidden recesses of the Word. As Gershom Scholem put it, the kabbalist believed that "the process of life in God can be construed as the unfolding of the elements of speech".⁴³⁵ From this assumption evolved a kabbalistic hermeneutics centred on three main techniques of letter permutation: *notarikon*, *gematria* and *tsiruf*.

Notarikon was a technique making use of acrostics, on the assumption that passages in the Torah could be interpreted by taking the initial or final letter from a string of words to create new words. So, for instance, Moses' question "Who shall go up for us in heaven?" (Deuteronomy 30:12) could be answered by breaking it down into the Hebrew word MYLH — "circumcision".

Gematria was a method based on the fact that numbers in Hebrew are designated by letters, so that every word can be ascribed a

⁴³³ Quoted from Scholem, *Major Trends in Jewish Mysticism*, p. 212. For a discussion of the *Zohar*, see Scholem, *Kabbalah*, pp. 213-243.

⁴³⁴ Scholem, *Major Trends in Jewish Mysticism*, p. 206.

⁴³⁵ Scholem, *Major Trends in Jewish Mysticism*, p. 212.

numerical value by adding up the value of the individual letters. According to this technique, the words “Lo, three men stood by him” (Genesis 38:2) are found to have the numerical value of 701. The very same value can be deduced by adding the names Michael, Gabriel and Raphael, leading to the conclusion that the three men referred to in Genesis were the three archangels.

Tsiruf was a technique making use of anagrams, by means of which a passage could be interpreted by rearranging the order of the letters. Employing this method, Mosé Cordovero deciphered the prohibition of wearing clothes of mixed wool and linen in Deuteronomy 22:11 by transposing the letters of the passage, thereby creating another sentence, warning Adam not to put on the skin of the serpent — a symbol of the demonic power.⁴³⁶

Kabbalistic hermeneutics was to a large extent legitimized by being embedded in a cultural narrative which, for obvious reasons, shared many features with Christian historiography. As in the Christian world, the tight bond between divine Word and human language was forged by the biblical narrative of Adam’s naming of the animals, the Fall, and the subsequent confusion of tongues. The fundamental difference was the privileged status ascribed to the Hebrew tongue. As the original, prelapsarian language of mankind which had evaded the confusion of tongues at Babel, Hebrew truthfully reflected the fundamental spiritual nature of the world and the creative language of God, implying that it possessed an elevated status as interpretive instrument.

A central feature in this cultural narrative was the notion that kabbalah, literally “receiving” or “tradition”, constituted a secret tradition of knowledge, originally given to the biblical prophets through divine illumination and passed down orally from generation to generation. This notion turned out to be crucial when a number of Renaissance scholars began to appropriate kabbalah for Christian purposes. In the sixteenth century, Rabbi Elijah Menahem Halfan delightedly noted that many Christians, especially “after the rise of the sect of Luther”, had approached Jewish scholars in search of knowledge — “learned men grasp a Jewish man by the hem of his

⁴³⁶ The examples are taken from Eco, *The Search for the Perfect Language*, pp. 27-28; and Walton, “John Dee’s *Monas Hieroglyphica*: Geometrical Cabala”, p. 117.

garment and say: ‘Be our master in this science!’”⁴³⁷ Rabbi Halfan’s encouraging attitude was not shared by everyone, however, and many Jews denounced the Christian interpretation of kabbalah as a distortion of the original tradition. For in interpreting this Jewish philosophy as part of a perennial philosophy stemming from the biblical prophets and pagan seers, a string of Christian scholars — notably Giovanni Pico della Mirandola, Johannes Reuchlin, Guillaume Postel and Heinrich Cornelius Agrippa — transformed kabbalah into something vastly different from its original form.⁴³⁸

Christian kabbalah

In his celebrated *De hominis dignitate*, intended as a speech to introduce the 900 theses presented in the *Conclusiones* (1486), Pico della Mirandola praised kabbalah as the very quintessence of ancient wisdom: it was the “the heart of understanding, that is, an ineffable theology of supersubstantial deity, the fountain of wisdom, that is, an exact metaphysics of intelligible angels and forms, and the river of knowledge, that is, a most sure philosophy of natural things”.⁴³⁹ In accordance with Jewish tradition, Pico described kabbalah as the *oral* Torah, “a more secret and true interpretation [*enarratio*] of the law” given to Moses on Mount Sinai. Kabbalah thus contained the secret

⁴³⁷ Quoted from Idel, “The Magical and Neoplatonic Interpretations of Kabbalah in the Renaissance”, pp. 186-187.

⁴³⁸ No comprehensive survey of Christian kabbalah during the Renaissance has been written since Blau’s *The Christian Interpretation of the Cabala in the Renaissance* (1944) and Secret’s *Les Kabbalistes chrétiens de la Renaissance* (1964), both of which have been superseded by recent research. On Pico della Mirandola’s notions of kabbalah, see also Wirszubski, *Pico della Mirandola’s Encounter with Jewish Mysticism*; Reichert, “Pico della Mirandola and the Beginnings of Christian Kabbalah”; and Yates, *Giordano Bruno and the Hermetic Tradition*, pp. 89-116. On Reuchlin, see Dan, “The Kabbalah of Johannes Reuchlin and its Historical Significance”; Zika, “Reuchlin’s *De Verbo Mirifico* and the Magic Debate of the late Fifteenth Century”; and Spitz, “Reuchlin’s Philosophy: Pythagoras and Cabala for Christ”. On Postel, see Bouswma, *Concordia Mundi: The Career and Thought of Guillaume Postel*; Bouswma, “Postel and the Significance of Renaissance Cabalism”; and Kuntz, *Guillaume Postel: Prophet of the Restitution of all Things*. On Agrippa, see Zambelli, “Magic and Radical Reformation in Agrippa of Nettesheim”; and Nauert, *Agrippa and the Crisis of Renaissance Thought*.

⁴³⁹ Pico della Mirandola, *On the Dignity of Man*, p. 31.

teachings of Moses, an oral supplement to Scripture, making it possible to accurately interpret the written Word.⁴⁴⁰

But in regarding kabbalah as an integral part of a *philosophia perennis* which comprised both pagan and Judeo-Christian teachings, Pico also associated kabbalah with a number of new elements. Framed in this narrative, the kabbalistic teachings became closely tied to the Neoplatonic philosophy, including the Zoroastrian and Chaldean sources made available by Ficino. Through this affiliation it also became intimately connected to pagan forms of magic; indeed, it became possible to regard it as a particular kind of magic. But above all, Pico was the first to claim that kabbalah enclosed the truths of Christianity: “There is no science that better confirms the divinity of Christ than magic and kabbalah.”⁴⁴¹

As Joseph Dan has recently stressed, Christian kabbalah quickly distanced itself from its Jewish origin, developing its own concepts into an increasingly complex body of beliefs. In this process, many of the concepts that had been central to Jewish kabbalah — for instance, the ten *sephiroth* — receded into the background, giving place to new notions fostered by the Christian and Neoplatonic context in which it had now been situated.⁴⁴²

Though Christian kabbalah did not form a homogenous “world view”, its impact on Christian scholars lent further weight to the belief that language could be used as a means to interpret nature. As Guillaume Postel remarked in his Latin translation of *Sepher Yetzirah* (1552), the elements of written language could be conceived of as mirroring the natural world since “the letters are the instruments of the creation of the world and the seals of the wisdom of God”. Therefore, “with the words broken down into their elements, the letters themselves thus inform us of the truth, as if they in reality compose those parts of matter and form [which constitute the physical world]”.⁴⁴³

⁴⁴⁰ Pico della Mirandola, *On the Dignity of Man*, p. 29.

⁴⁴¹ Pico della Mirandola, *Conclusiones*, ‘Conclusiones Magice’, no. 9, p. 79: “Nulla est sciencia, que nos magis certificet de diuinitate Cristi, quam magia et cabala.” Cf. *On the Dignity of Man*, p. 31.

⁴⁴² Dan, “The Kabbalah of Johannes Reuchlin and its Historical Significance”, pp. 65–67.

⁴⁴³ *Abrahami Patriarchae Liber Jezirah*, section B, sig. B.vij^r [p. 85 in the facsimile edition]: “Nam litterae creationis mundi instrumentum, & sapientiae Dei sigilla. ... resolutis in sua elementa vocabulis sic ipsae nos informent litterae de veritate, sicut

Thus, the impact of kabbalah on Christian scholarship not only reinforced the notion that language can yield knowledge of the natural world; it also redirected attention towards a previously disregarded linguistic element. In kabbalah it was neither the word that was believed to “imitate” the inner essence of an object (as in the “Platonic” language view), nor was it the grammatical system that was considered to correspond to physical reality (as in the various theories of a universal grammar). Rather, it was the letters of the alphabet which, in their graphical shape as well as in their different combinations, enclosed the hidden treasures of the divine Word. In his *Conclusiones* Pico della Mirandola stated: “There are no letters in the whole law which in their forms, conjunctions, separations, greatness, crowning, shutting, opening and order ... do not reveal secrets.”⁴⁴⁴ Similarly, Johannes Reuchlin claimed that King Solomon’s legendary knowledge of all natural phenomena was due to his ability to decipher the letters of the Torah:

He was wiser than all men, he would discourse on anything from the wood of the Cedar of Lebanon to the hyssop that grows in the cracks of the wall; he discussed animals and birds and reptiles and fishes ... “All these things he knew through the Law, and in it he found everything by his explanation, in the minutiae of grammar, in the letters and their ornaments.”⁴⁴⁵

But in accommodating kabbalah to a Christian scheme, early modern scholars also tended to blur the distinction between kabbalistic teachings and the “Platonic” view of “natural” signification. In his extensive commentaries on *Sepher Yetzirah*, Guillaume Postel (1510-1581) glossed the kabbalistic account of how all creatures and all true names had been created through God’s uttering of his Word in terms remarkably reminiscent of the *Cratylus* account, describing the creatures and their proper names as mirroring each other:

materiae et formae partes revera illas componunt.”

⁴⁴⁴ Pico della Mirandola, *Conclusiones*, ‘Conclusiones numero XLVII. secundum doctrinam sapientium hebreorum Cabalistarum’, no. 33, p. 53: “Nulle sunt littere in tota lege, que in formis, coniunctionibus, separacionibus, maioritate, coronatione, clausura, apertura, et ordine ... secreta non manifestent.”

⁴⁴⁵ Reuchlin, *On the Art of the Kabbalah*, pp. 246/249, paraphrasing and quoting “Gerundensis”, that is, Nachmanides (R. Moses ben Nahman) of Gerona. Cf. II Chronicles 1:9-12.

It is not possible to separate the name from the creature nor the creature from the name; for the one is affected by the other. In the name the thing is explained with regard to its purpose and properties.⁴⁴⁶

An illustrative example of how the Platonic, biblical and kabbalistic language views were conflated in the Christian interpretation of kabbalah is Agrippa's lengthy account of the properties of language and writing. Here Agrippa moved directly from the notion of natural signification advocated by "the Platonists", relying heavily on Ficino's commentary on *Cratylus*, to the biblical narrative of Adam's naming of the animals, stating that the "proper names" of things signify according to "celestial harmony". From this position he swiftly went on to describe the Hebrew characters as corresponding to the celestial constellations, eventually portraying creation itself as formed through language in a passage evidently influenced by the *Sepher Yetzirah*:

Now if there be any original [language], whose words have a natural signification, it is manifest that this is the Hebrew... There are therefore two and twenty letters which are the foundation of the world, and of creatures that are, and are named in it, and every saying, and every creature are of them, and by their revolutions receive their name, being and virtue. He therefore that will find them out, must by each joining together of the letters so long examine them, until the voice of God is manifest, and the framing of the most sacred letters be opened and discovered.⁴⁴⁷

Thus, although the kabbalistic influence strengthened the assumption that true knowledge of the world could be attained through

⁴⁴⁶ *Abrahami Patriarchae Liber Jezirah*, sec. 19, sig. E ij.^v, [p. 124]: "Ideo nec nomen a creatura, nec creatura a nomine potest separari, sed ab altero alterum movetur. In nomine res exponitur, ut ad finem & proprietatem", glossing the words "Sic loquens fecit omnem creaturam & omne verbum nomen unum" from the *Sepher Yetzirah*.

⁴⁴⁷ Agrippa, *Three Books of Occult Philosophy*, I.70-74, pp. 213-224; the quoted passage is from I.74, p. 224. That words signified according to "celestial harmony" was a notion most comprehensively treated in al-Kindi's *De radiis*. This is discussed below in Part III.

[illegible]

Fig. 20. Table showing the correspondences between letters, astrological characters and chiromantic signs. From Agrippa, *De occulta philosophia*, 1533, p. 97.

linguistic interpretation, it also made the relationship between language and nature more complicated and more open to different interpretations. For Agrippa, it posed no problem to situate kabbalah in a philosophical and narrative framework which freed it from many of its original constraints. Concluding his account of the properties of the letters by demonstrating the correspondences between Hebrew, Greek and Latin letters, as well as the astrological signs and the chiromantic characters found in the human hand (fig. 20), Agrippa had in essence disengaged kabbalah from its dependence on the Hebrew Torah. Instead, it became the art of interpreting written language as such, whether this language was manifested in the alphabets of the ancients or in the Book of Nature.

What remained intact in the Christian interpretation of kabbalah was its function. As in the Jewish tradition, the characters of written language were regarded as symbolic expressions of the divine forces and essences, by means of which man could apprehend the divine realm. Reuchlin described kabbalah as a “contemplative art” through which “the mind of man, so far as nature allows, achieves that Godlike state which is the zenith of Blessedness”:

by a form of symbols [*per quaedam symbola*], all earthly things are thrown away, and the stuff of matter is cast off; we strip Form from Form, until we reach the primal Form, that is both the Form of all things and yet without Form.⁴⁴⁸

By employing the different techniques of letter permutation, man could attain a mystic ascent of the soul, ultimately leading to the beatific vision of God: “from the lower world to the higher, and from the higher world to the Messiah ... Through the Messiah we come to the unknowable God; we come thither through these holy letters, as if on Jacob’s ladder...”⁴⁴⁹

In emphasizing the attainment of salvation through the Messiah as the ultimate goal of kabbalistic interpretation, Christian kabbalists also situated kabbalah in a grand narrative centred on Adam’s Fall and the coming redemption of mankind. In Reuchlin’s view, the aim of kabbalah was “none other than the universal restoration, after the primordial Fall of the human race, which is called salvation”.⁴⁵⁰ Indeed, according to Reuchlin, kabbalah predated Scripture and had its very origin in the circumstances of the Fall. When Adam had transgressed God’s command, “God no longer talked with him face to face as he had done... now he disdained to talk face to face with the sinner man”. Instead, God sent Adam an angel to “teach him how the ruins could one day be rebuilt”, an angel bringing him “divine words, to be interpreted allegorically, in the way of Kabbalah”.⁴⁵¹ These divine words were the true names of God. As Agrippa put it in *De occulta philosophia*, these names signified “certain properties flowing from him [i.e. God]”, and by means of them “he doth pour down, as it were by certain conduits, on us and all his creatures many benefits and divers gifts”. In appellations like *El*, *Emeth* and above all the ineffable name known as the *Tetragrammaton*, man had been given “the most fit and powerful means of reconciling and uniting man with God...”⁴⁵²

Framed in this cultural narrative, kabbalah was both legitimized and attributed a singular status in Christian history. The art of kabba-

⁴⁴⁸ Reuchlin, *On the Art of Kabbalah*, pp. 44/45. I have here chosen a slightly more literal translation than the translator’s.

⁴⁴⁹ Reuchlin, *On the Art of Kabbalah*, pp. 114/115-116/117.

⁴⁵⁰ Reuchlin, *On the Art of Kabbalah*, pp. 64/65. See also pp. 158/159.

⁴⁵¹ Reuchlin, *On the Art of Kabbalah*, pp. 68/69.

⁴⁵² Agrippa, *Three Books of Occult Philosophy*, III.11, pp. 474-478.

lah was, as Reuchlin wrote, “a matter of divine revelation handed down to further the contemplation of the distinct Forms and of God, contemplation bringing salvation; Kabbalah is the receiving of this through symbols”.⁴⁵³ It was a divine gift handed down from generation to generation by which man could let human history come full circle; the very means by which mankind would find redemption from the Fall and once again attain that state of blessedness when we talk “face to face” to our Creator.

Dee and kabbalah

Given the centrality of the Adamic narrative in Dee’s angelic conversations, it comes as no surprise that kabbalah had an important role in his attempts to recover the “Celestiall speche” of the angels in the 1580s. Not only was this “lingua angelica, vel Adamica” claimed to constitute the very matrix of created nature: “Beasts, birds, fowle and fish do all reuerence to it. *In this they were all Created.* In this, is all things contayned.”⁴⁵⁴ It was also presented to Dee and Kelley in the form of tables containing individual letters to be combined and permuted according to certain methods, a process which when complete was supposed to bring the history of mankind to its predestined conclusion. As the angel Nalvage proclaimed:

I will open, teach, and uncover the secrets of that speech, that holy mysterie. To the intent the CABALA of NATURE, in voyce, substance of bodie, and measure in all parts may be known. For there is nothing secret, but it shall be revealed, and the son of GOD shall be known in POWER, *and establish a Kingdom with righteousness in the earth,* and then commeth the end.⁴⁵⁵

However, though Dee occasionally referred to and compared the angelic revelations with written sources such as Reuchlin’s *De arte cabalistica*, these comparisons mostly underscored the differences between kabbalistic conventions and the notions disclosed by the angels. The angelic revelations, which were to a large extent taken on trust by Dee, lack the systematic character of the written kabbalistic

⁴⁵³ Reuchlin, *On the Art of Kabbalah*, pp. 62/63.

⁴⁵⁴ Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 65.

⁴⁵⁵ Dee, *A True & Faithful Relation*, p. 65.

tradition. The methods to be employed to form words from the tables of letters were never fully explained, nor do they show many similarities to conventional kabbalistic techniques. And though the angels stressed the kinship between Hebrew and the Adamic tongue, Hebrew was clearly of minor importance in recovering the angelic language. As Dee laconically admitted to the angels during a session: "I am not good in the hebrue tung, but, you know my meaning."⁴⁵⁶

Yet it is clear that Dee very early in his career was genuinely interested in kabbalistic teachings. Of the twenty-two books he purchased over a two-year period in the early 1560s, twenty were concerned with Hebrew or kabbalah. In 1562 he also wrote a treatise entitled *Cabbalae Hebreicae compendiosa tabella*, which unfortunately no longer survives.⁴⁵⁷ In his first library catalogue, by contrast, compiled in 1557 and including some three hundred titles, we find no traces of Jewish kabbalah, neither in Hebrew nor in Latin translation. What we do find is a fairly representative selection of works on Christian kabbalah, including Reuchlin's *De verbo mirifico*, Francesco Giorgio's *De harmonia mundi*, Pico's *Conclusiones*, and Agrippa's *De occulta philosophia*. Moreover, since he claimed to have become a friend of Guillaume Postel in 1550, it is not impossible that he had some second-hand knowledge of the *Sepher Yetzirah*. At the time Postel had recently returned from the Middle East and was preparing the first Latin translation of the *Sepher Yetzirah*, which in its extensive commentaries was profoundly influenced by the Neoplatonic and Pythagorean notions so prevalent in the Christian interpretation of kabbalah.⁴⁵⁸

⁴⁵⁶ Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 65. As Deborah Harkness has pointed out, however, Dee's knowledge of Hebrew should not be underestimated. At the time of his angelic conversations, his library contained more Hebrew literature than any other library in England, and he mastered the language well enough to engage in kabbalistic exegesis of Hebrew passages. On this, see Harkness, *John Dee's Conversations with Angels*, especially p. 164.

⁴⁵⁷ On Dee's purchase of books, see Harkness, *John Dee's Conversations with Angels*, p. 86. The *Cabbalae Hebreicae compendiosa tabella* is listed in Dee's bibliography of his own works, in *A Letter, containing a most briefe discourse Apologeticall*, pp. 73-77, reprinted in *A True & Faithful Relation*, sigs. K1^r-K3^r.

⁴⁵⁸ Roberts and Watson (eds.), *John Dee's Library Catalogue*, nos. B25, B91, B121, B208. On Dee's acquaintance with Postel, see Dee, *The Compendious Rehersall*, p. 8.

Turning back to *Monas hieroglyphica*, we find that Christian kabbalah had a vital role in Dee's explication of the Monas symbol. In the introduction, he attributed great importance to the letters of the alphabet, stressing that "reasons must be given for the shapes of the letters, for their position, for their place in the alphabet, for [their] various [ways of] joinings, for their numerical values, and for most other things". He also asserted "that the first and mystical letters of the Hebrews, the Greeks, and the Latins, issued from God alone and were entrusted [by Him] to the mortals". Indeed, by incorporating the true shapes of all letters, the Monas symbol could shed light on "all things visible and invisible, manifest and most occult, emanating (through nature or art) from God Himself".⁴⁵⁹

In referring to Latin and Greek letters, as well as Hebrew, Dee clearly proposed a conception of kabbalah that had little in common with the original Jewish tradition. When faced with the Monas symbol, he asserted, the "Hebrew kabbalist" would be forced to admit that the kabbalistic techniques — *gematria*, *notarikon* and *tsiruf* — could be "used outside the confines of that language called holy" and that the "most benevolent God is not only [the God] of the Jews, but of all peoples, nations, and languages..."⁴⁶⁰ In fact, Dee not only repudiated the superior status traditionally attributed to the Hebrew language; he also gave his own symbol priority in relation to it by claiming that the Monas symbol itself was a "holy language", "more divine" than Hebrew, which he had chosen to call

the real kabbalah, or [the kabbalah] of that which is [...REALEM CABALAM, sive *tou ontos*], as I call that other and vulgar one, which rests on well known letters that can be written by man, kabbalistical grammar or the kabbalah of that which is said [...Cabalisticam GRAMMATICAM, sive *tou legomenou*].⁴⁶¹

In contrast to Hebrew kabbalah, which treated the written letters and texts of mankind, the Monas symbol was a "real kabbalah", "born to us by the law of creation" and in accordance with those "written memorials ... which from the Creation has been inscribed by God's own finger on all creatures".⁴⁶²

⁴⁵⁹ Dee, *Monas hieroglyphica*, pp. 122/123-126/127.

⁴⁶⁰ Dee, *Monas hieroglyphica*, pp. 132/133.

⁴⁶¹ Dee, *Monas hieroglyphica*, pp. 134/135.

⁴⁶² Dee, *Monas hieroglyphica*, pp. 124/125, 134/135

ij nostri Confor-
 multiplicatæ
 oueniē-
 ue repre
 : sit euer
 imitari Multipli-
 iter in N. v m e-

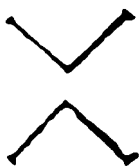


Fig. 21. The central cross of the Monas divided into two V's. From Dee, *Monas Hieroglyphica*, 1564, fol. 16^r.

As such, the Monas symbol functioned as a form of “meta-language” from which the Hebrew, Greek and Latin letters could be derived, including their shapes, their position in the alphabet and their numerical value. To prove this point, Dee engaged the reader in a series of cumbersome meditations on the letters of the alphabets. Taking the central cross of the Monas symbol as his point of departure, he remarked that this cross was formed by four right-angled straight lines. Since the number four, “as Pythagoras himself used to say”, adds up to the number ten when written as a sequence (i.e. $1+2+3+4=10$), the cross was “not without reason chosen by the oldest Latin philosophers to signify the number Ten” — that is, the Roman numeral X. Similarly, as the sequence 1, 2, 3 and 4 also produces the number 21 if written as $(1+2) \times (3+4)$, it was hardly a coincidence that this very character had become the twenty-first letter of the Latin alphabet.⁴⁶³ Likewise, when the ancient Latins had chosen the character ‘V’ to denote the number five, this was “not done by them irrationally”, since this character was formed simply by breaking the cross, signifying ten, into two halves (fig. 21). And considering that the two V's formed by the broken cross could be multiplied to the sum of twenty-five, was not the hand of a most profound wisdom evident in the fact that the letter V is also the twentieth letter and the fifth vowel in the alphabet? “O MI DEVS, QVANTA HAEC MYSTERIA?” — “O my God, how great are not these mysteries?”⁴⁶⁴

⁴⁶³ Dee, *Monas hieroglyphica*, pp. 158/159.

⁴⁶⁴ Dee, *Monas hieroglyphica*, pp. 168/169-170/171.

Though a modern reader might find it difficult to understand how these numerological meditations could substantiate his claim that the Monas symbol was a “real kabbalah” reflecting the laws of physical reality, it is obvious that Dee considered the geometrical and numerical relationships inherent in the “Hieroglyphic Monad” fundamental not only to the meaning of the symbol itself, but also to the meaning of the letters derived from it. It is also clear that Dee’s explanation of the symbol was based on the three principal kabbalistic techniques. By breaking it up into its constituent components and treating each element as representing concepts in its own right, he employed the kabbalistic technique of *notaricon*; by rearranging and combining these different elements into new significant geometrical shapes, he employed *tsiruf*; and by treating the resulting geometrical shapes as having numerical values as well as conceptual meanings, he employed *gematria*. In effect, Dee rejected linguistics as the true foundation of kabbalah. The “real kabbalah”, the kabbalah treating “that which is”, was, in the words of Michael T. Walton, a “geometrical kabbalah”, a kabbalah having its basis in mathematical relationships.⁴⁶⁵

The Pythagorean scheme of creation

One of the most persuasive impulses behind the Christian reinterpretation of kabbalah was the Pythagorean teachings. Whereas the Jewish kabbalistic tradition was based on the assumption that the divine creation could be construed as the unfolding of the elements of language, these teachings envisaged reality as ultimately reducible to mathematics. In his *Metaphysics* Aristotle scolded the Pythagoreans for claiming “the elements of numbers to be elements of everything, and the whole world to be a proportion or number”, at the same time noting that Plato had been a disciple of Pythagoras and that his conception of the eternal Ideas was rooted in Pythagorean doctrines.⁴⁶⁶

The kinship between the Platonic realm of Ideas and the Pythagorean conception of numbers impelled early Christian scholars to accommodate the Pythagorean teachings to the Christian *logos* doctrine. As Boethius phrased it in a well-known passage quoted by Dee in his *Mathematicall Praeface*: “All thinges ... do appeare to be

⁴⁶⁵ Walton, “John Dee’s *Monas Hieroglyphica*: Geometrical Cabala.”

⁴⁶⁶ Aristotle, *Metaphysics*, 985b24-987b34, pp. 31-45.

Formed by the reason of Numbers. For this was the principall example or patterne in the minde of the Creator.”⁴⁶⁷ This notion was lent credence by the Scriptural dictum that God “Created all thynges, in Number, Waight, and Measure”⁴⁶⁸; a dictum that caused Nicholas of Cusa (1401-1464) to describe the divine Creation as a form of mathematical process in which God employed the common mathematical arts to shape the physical universe:

In creating the world, God used arithmetic, geometry, music, and likewise astronomy. For through arithmetic God united things. Through geometry He shaped them ... Through music He proportioned things... And so, God, who created all things in number, weight, and measure, arranged the elements in an admirable order.⁴⁶⁹

These notions prepared the grounds for a reconceptualization of Jewish kabbalistic teachings which placed mathematics at the very centre of kabbalistic interpretive techniques. In his *Conclusiones* Pico della Mirandola essentially reversed the relative precedence of the letters and their numerical values, claiming that while magic operated through “characters”, kabbalah worked through “numbers”.⁴⁷⁰ And in his *De arte cabalistica* Reuchlin stated that the Pythagorean teachings originated “from the teachers of kabbalah” and that his primary reason for writing a book on kabbalah was “to make Pythagorean doctrine better known to scholars”.⁴⁷¹

In *Monas hieroglyphica* Dee made no attempt to explain why mathematics should be regarded as the very foundation of a true or “real” kabbalah, simply presenting the numerological meditations as transparent to the initiated and worthy reader. In his *Mathematicall Praeface* written six years later, by contrast, we find a comprehensive account of the traditional “Mathematicall Artes”, but not a single reference to kabbalah. Yet few early modern works intended as introductory texts to the mathematical arts make the religious and meta-

⁴⁶⁷ Dee, *The Mathematicall Praeface*, sig. *.j.ⁱ, quoting Boethius, *De arithmetica*, I.2.1.

⁴⁶⁸ Wisdom of Solomon 11:20, as quoted by Dee in *The Mathematicall Praeface*, sig. A.iiij.^v.

⁴⁶⁹ Nicholas of Cusa, *On Learned Ignorance*, II, 13, p. 122.

⁴⁷⁰ Pico della Mirandola, *Conclusiones*, ‘Conclusiones Magice’, no. 25, p. 80: “Sicut caracteres sunt proprii opere magico, ita numeri sunt proprii operi cabale...”

⁴⁷¹ Reuchlin, *On the Art of Kabbalah*, pp. 38/39.

physical dimension of mathematics so evident as Dee's *Mathematicall Praeface*. At the outset of his account, Dee praises Pico's *Conclusiones*, remarking that from this work "it would apeare, how sincerely, & within my boundes, I disclose the wonderfull mysteries, by numbers, to be attained vnto".⁴⁷² Quoting the last of Pico's mathematical conclusions — "*By numbers, a way is had, to the searchyng out, and understanding of eevery thyng, hable to be knowen*"⁴⁷³ — Dee goes on to refer to the "74 Questions" presented by Pico, adding that "I would wish that those Conclusions were red diligently..." These seventy-four questions were simply a collection of succinct statements setting out the numerous issues that could be settled by the science of numbers: whether God exists; whether He is infinite; whether He is the cause of all things; in what way creatures differ in their essence from God; if the intellectual nature of man is always united with God; whether our rational soul is incorruptible; and so on.⁴⁷⁴

Though Dee's account of mathematics in the *Mathematicall Praeface* focuses on its practical application in the physical sciences, it is clear that he also conceived of it as a science that could guide man to the knowledge of spiritual matters. As he noted in a manuscript of Roger Bacon's *De mathematica*: "The good lies not in mathematics in itself; but in that we by mathematics are advanced towards physics as well as theology."⁴⁷⁵ This feature was a result of the unique ontological status that was attributed to mathematics: its capacity to serve as a link or bridge between the physical and spiritual domains. In the *Praeface* Dee praised the "*Thynges Mathematicall*" for "beyng (in a manner) middle, betwene thinges supernaturall and naturall: ... not so absolute and excellent, as thinges supernatural: Nor yet so base and grosse, as thinges naturall":

⁴⁷² Dee, *The Mathematicall Praeface*, sig. *.j.v.

⁴⁷³ Dee, *The Mathematicall Praeface*, sig. *.j.v. Cf. Pico della Mirandola, *Conclusiones*, 'Conclusiones de mathematicis', no. 11, p. 74: "Per numeros habetur via ad omnis scibilis inuestigationem et intellectionem..."


⁴⁷⁴ Dee, *The Mathematicall Praeface*, sig. *.j.v. For the "74 questions", see Pico della Mirandola, *Conclusiones*, 'Questiones ad quas pollicetur se per numeros responsurum', pp. 74-77.

⁴⁷⁵ Oxford, Bodleian Library, MS Digby 76, fol. 56^v: "Bonum non est in mathematicis secundum se: sed dum vel physice vel Theologice a Mathematicis progredimur. I. D."

A meruaylous newtralitie haue these thinges *Mathematicall*, and also a straunge participation betwene thinges supernaturall, immortall, intellectual, simple and indiuisable: and thynges naturall, mortall, sensible, compounded and diuisable.⁴⁷⁶

This remarkable “neutrality” and “strange participation” between the spiritual and physical worlds had its basis in the notion that numbers constituted the creative principles behind the universe, principles that were manifested and reflected in the different levels of creation. As Dee pointed out in the *Praeface*, numbers existed in three forms: in the Mind of the Creator, in natural things and in the soul of man. Conceived as the principles residing in the Mind of God, numbers were equivalent to the instrument by which the world was formed, a process accomplished by God’s “numbering” of the yet unformed things and creatures: “in God the Creator, This discretion, in the beginning, produced orderly and distinctly all thinges. For his *Numbryng*, then, was his Creatyng of all thinges”. Bearing the reflection of these principles within his soul, man was created in the likeness of his Creator; but, as Dee pointed out, “our Seuerallyng, distinctyng, and *Numbryng*, createth nothyng”. Instead, by “numbering” and applying mathematical rules we seize God’s creative principles as they are manifested in creation, thereby gaining a true and reliable knowledge of nature.⁴⁷⁷

In the Pythagorean teachings, however, the correspondence between man’s employment of mathematics and God’s “creatyng of all thinges” went even deeper than this. According to the Pythagorean philosophy, the construing of the numeral system and the creation of the world could be envisaged as completely analogous processes, both having their basis in the same concept — the *monad*.⁴⁷⁸ As a strictly mathematical concept, the monad was defined as the originative principle of all numbers. In ancient Greece numbers were graphically represented as dots or points set out in a spatial pattern. The number one, for instance, was simply written as a single point, while the number three was represented as three points arranged in a triangular

⁴⁷⁶ Dee, *The Mathematicall Praeface*, sig.  .iiij.^v.

⁴⁷⁷ Dee, *The Mathematicall Praeface*, sig. * .j.^v.

⁴⁷⁸ For an excellent account of the Pythagorean conception of mathematics and creation as they were interpreted in the Renaissance, see Heninger, *Touches of Sweet Harmony*, especially pp. 71-145.

pattern: •• This method of graphical representation was to form the basis of how numbers were defined and conceptualized up to at least the seventeenth century. Turning to the *Algoritmus vulgaris* of John of Sacrobosco (d. c. 1244-1256), we find the standard definition of numbers expressed in a succinct passage: “A number is made known in two ways: materially and formally. Materially [*materialiter*] a number is a collection of units; formally [*formaliter*] it is a multitude of units extended [or spread out]. A unit [*unitas*] is that by which anything is said to be one.”⁴⁷⁹

As Dee pointed out in his *Praeface*, the term *unitas* or unit was the common rendering of the Greek “monad” — “Note the worde, Unit, to expresse the Greke Monas...” In the *Praeface* Dee also gave an exposition of numbers which in all essentials paralleled Sacrobosco’s formulation, defining number as “a certayne Mathematicall Summe, of *Units*”. As Dee emphasized, however, a unit did not in itself constitute a number “because, of it, materially Number doth consist”.⁴⁸⁰ Instead, it constituted the principle of numbers, entirely conceptual in character, and became a number by being given a spatial position. The monad, in other words, turned into the number one by being imposed upon space, by bridging the gap between the conceptual and the physical.

This way of defining numbers, rather awkward to the modern mind, had its underlying rationale in the basic tenet of the Pythagorean teachings: the belief that divine creation could be conceived of as a mathematical process in which the elements of the universe were brought forth from the “metaphysical” monad — the Neoplatonic concept of the One — in a manner paralleling the derivation of numbers from the mathematical monad. In his *Elements of Theology*, Proclus (412-485) described the divine monad as the innermost godhead from which the universe streamed forth in a series of hierarchically ordered emanations, using a terminology remarkably reminiscent of the one used in mathematical contexts:

Every order has its beginning in a monad and proceeds to a manifold co-ordinate therewith; and the manifold in any order may be carried back to a single monad. For the

⁴⁷⁹ Quoted from Grant, *A Sourcebook of Mediaeval Science*, p. 95.

⁴⁸⁰ Dee, *The Mathematicall Praeface*, sig. * .j.^r.

monad has the relative status of an originaive principle, and so generates the appropriate manifold.⁴⁸¹

Just as numbers were conceived of as proceeding from the mathematical monad in a process of individual stages following the initial bridging of the gap between the conceptual and physical domains, so too the creation was envisaged as a gradual process in which the meta-physical monad traversed the borderline between the conceptual, divine sphere and the world of physical existence. The crossing of this borderline was conceived of as the gradual forming of geometrical bodies according to the Pythagorean conception of number: imposed upon space, the monad took the shape of a point; two points formed a line; three points formed a surface; and four a spatial body — the physical universe extended in three dimensions: $\bullet \rightarrow \triangle \rightarrow \triangle \rightarrow$ One of the most lucid accounts of this process can be found in the *Lives of Eminent Philosophers* of Diogenes Laertius (third century AD):

This principle of all things is the monad or unit; arising from this monad the undefined [i.e. unlimited] dyad or two serves as material substratum to the monad, which is cause; from the monad and the undefined dyad spring numbers; from numbers points; from points, lines; from lines, plane figures; from plane figures, solid figures; from solid figures, sensible bodies, the elements of which are four, fire, water, earth and air; these elements interchange and turn into one another completely and combine to produce the universe, animate, intelligent, spherical, with the earth at its centre...⁴⁸²

This conception of the creation became a central tenet of Pythagorean and Neoplatonic philosophy, repeated and elaborated upon by a number of scholars from antiquity to the seventeenth century. In *Philosophia sacra* (1626) Robert Fludd graphically pictured the divine creation as an arithmetical progression according to the Pythagorean scheme, beginning in the monad and concluding in the

⁴⁸¹ Proclus, *Elements of Theology*, prop. 21, p. 25.

⁴⁸² Diogenes Laertius, *Lives of Eminent Philosophers*, VIII, 24-25, pp. 341-343. For a similar account see, e.g., Philo, *On the Creation*, [16], 49, pp. 37-39. Cf. also Aristotle, *On the Heavens*, 268a7-268a28, pp. 5-7 and *On the Soul*, 404b18-404b24, pp. 23-25.

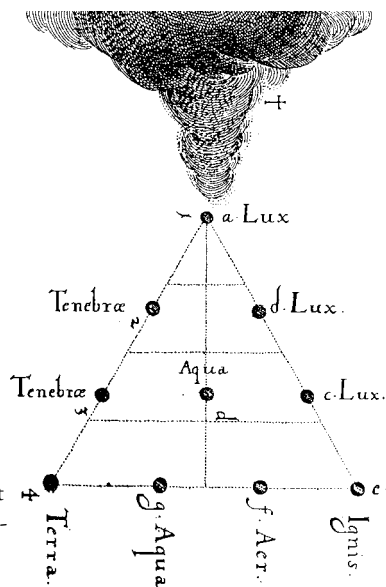


Fig. 22. The Pythagorean Tetractys representing the Creation. From Robert Fludd, *Philosophia Sacra et vere Christiana seu Meteorologia Cosmica*, 1626, p. 33.

Tetractys or quaternary, representing the creation of the four elements (fig. 22). This scheme was not only endorsed by scholars of an overtly Neoplatonic persuasion, however; in his short tract *De luce* Robert Grosseteste (c. 1175-1253) appropriated the same arithmetical progression to describe the stages of the divine creation, applying a thoroughly scholastic terminology to it. “The unity of the form, the duality of the matter, the trinity of the composition and the quaternary of the compound, when they are added, make a denary.”⁴⁸³

As Grosseteste emphasized, the denary or number 10 comprised the entire arithmetical progression from monad to quaternary (i.e. $1+2+3+4=10$). Moreover, as the first “circular number” which returned to unity and stability (i.e. $10=1+0=1$), the number ten also set the limits of this progression, making the decad or denary a representation of everything complete and perfect.⁴⁸⁴ Thus, by comprising the

⁴⁸³ Grosseteste, *De luce*, p. 58: “Unitas namque formae et binarius materiae et ternarius compositionis et quaternarius compositi, cum aggregantur, denarium constituunt.” Dee owned two manuscript copies of this work, both of which survive: Oxford, Bodleian Library, MS Digby 98 and MS Digby 104.

⁴⁸⁴ Grosseteste, *De luce*, p. 58: “Ex bis patet, quod denarius sit numerus universitatis perfectus, quia omne totum et perfectum aliquid habet in se sicut formam et unitatem, et aliquid sicut materiam et binarium, et aliquid sicut compositionem et ternarium, et aliquid sicut compositum et quaternarium. Nec contingit ultra haec

entire divine act of creation, the denary could be regarded as a consummate representation of the divine Mind in the process of shaping the universe according to His Ideas. Echoing these notions, Johannes Reuchlin stated that the denary was “nothing other than cognition of things in the divine mind operating in accordance with reason”.⁴⁸⁵

The belief that kabbalah constituted the very core of the Pythagorean teachings impelled a number of Christian kabbalists to focus their attention on this form of number mysticism. By contemplating the arithmetic progression from monad to quaternary, a progression which in its entirety constituted the perfect denary, the kabbalist believed it possible to fathom and comprehend the laws of creation, the divine Word. Indeed, as Pico della Mirandola stated in one of his conclusions: “Anyone who knows the denary in formal arithmetic ... will know that which I have not as yet read in the works of any kabbalist, and that is, what the foundation is of the secret of the great Jubilee in kabbalah” — that is, the foundation of the coming redemption of the world and resurrection of man.⁴⁸⁶

quattuor quintum addere. Quapropter omne totum et perfectum est decem.”

⁴⁸⁵ Reuchlin, *On the Art of the Kabbalah*, pp. 192/193.

⁴⁸⁶ Pico della Mirandola, *Conclusiones*, ‘Conclusiones Cabalistiche numero LXXI’, no. 68, p. 90: “Qui sciuerit quid sit denarius in Arithmetica formali ... sciet illud quod ego adhuc apud aliquem cabalistam non legi, et est, quod sit fundamentum secreti magni Iobei in Cabala.” According to Hebrew tradition, the Jubilee was a feast recurring every fifty years during which all slaves were liberated and all property having changed owner within the period was returned to the original owner. The tradition was based on Leviticus 25:9-14, which according to kabbalistic interpretation also referred to the coming resurrection. In the *Zohar* the word *Yobel* (Jubilee) was associated with the letter ך, signifying “the spirit rushing forth over all (because the mother is the world to come, when in the resurrection all things will receive the spirit); and all things shall return unto their place (like as in the jubilee, so in the world to come).” (Quoted from MacGregor Mather’s translation in *The Kabbalah Unveiled*, p. 107.)

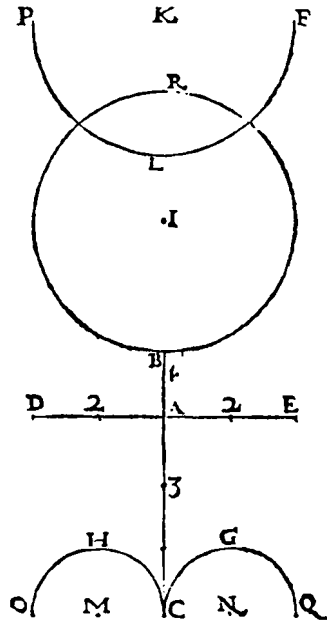


Fig. 23. The geometrical proportions of the Monas symbol. From Dee, *Monas Hieroglyphica*, 1564, fol. 24^r.

Dee's mathematical kabbalah

Appropriately, Dee's numerological meditations on the Monas symbol, the "real kabbalah", were centred on the three key numbers in the Pythagorean teachings: the monad (i.e. one), the quaternary (i.e. four) and the denary (i.e. ten). In the introduction he refers to the common 'arithmetician', exclaiming somewhat enigmatically:

Will he [the 'arithmetician'] not be filled with the greatest admiration ... [when] the very wealth and value of the substance of One (the powers lying latent within the very substance), which is here put forth as chaos (capable of resolving any arithmetical doubt), is explicated by the number Ten?⁴⁸⁷

⁴⁸⁷ Dee, *Monas hieroglyphica*, pp. 128/129: "An non admiratione afficietur maxima, in Rei & Censu subtilissima Generalique Regula: UNIUS REI, tanquam Chaos, propositae, (ad omne dissoluendum Arithmeticum Dubium, habilis) CENSUM ipsum, & Valorem, sive Aestimationem (Potentiae in ipsa RE Latentis) Hic, Primo

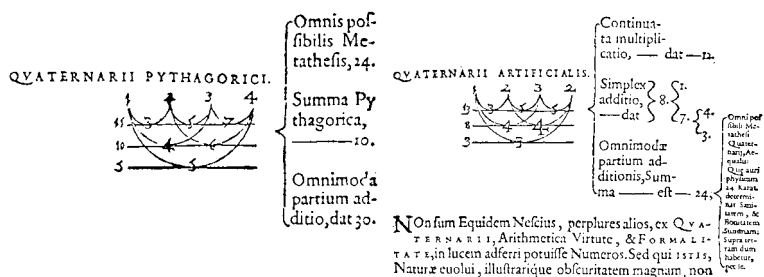


Fig. 24. Derivation of numbers from the quaternary according to Pythagorean methods. From Dee, *Monas Hieroglyphica*, 1564, fols. 25^v and 26^r.

That is, by explicating the denary, Dee would unfold the powers lying enclosed within the One, powers constituting the “Chaos” from which the universe had sprung forth. As Robert Fludd put it in *Utriusque cosmi maioris historia*, “Chaos” was the term used by the ancients to denote the “confused matter and undigested mass” from which “the divers natures necessary both for the completion of the universe, and for the completion of the Philosophical Work [i.e. the alchemical transmutation of matter] are brought forth”.⁴⁸⁸

Significantly, we find Dee treating the Pythagorean numbers represented by the “Hieroglyphic Monad” not only as embodying the laws of creation but also as embracing the laws governing the alchemical transmutation of matter. In the twenty-third theorem he presents precise and detailed instructions for the geometrical construction of the symbol (fig. 23), emphasizing the “mystical proportions” of its “hieroglyphical measurements.” After once again pointing out that the central cross of the symbol was made of four right-angled straight lines, he makes the “quaternary of the lines of our cross” subject to a “peculiar and mystical division and computation”. In doing this, Dee adopts the conventional Pythagorean schemes to derive a wealth of numbers from the quaternary by applying a variety of computational rules to the number four (fig. 24). These numbers are then presented in a table (fig. 25), showing that “certain useful offices in Nature were

semper examine, DENARIO explicari Numero?” I have here slightly modified Josten’s translation.

⁴⁸⁸ Fludd, *Utriusque cosmi maioris... historia*, I, pp. 39-40: “... *Chaos* seu materia confusa & indigesta moles... Haec denique est materia illa, de qua Philosophi tam veteres quam Chimici & recentiores, ac Poëta in libris suis cecinerunt & scripserunt, atque ex qua naturas diversas, tum ad macrocosmi perfectionem, tum etiam ad operis Philosophici complementum necessario depromi voluerunt.”

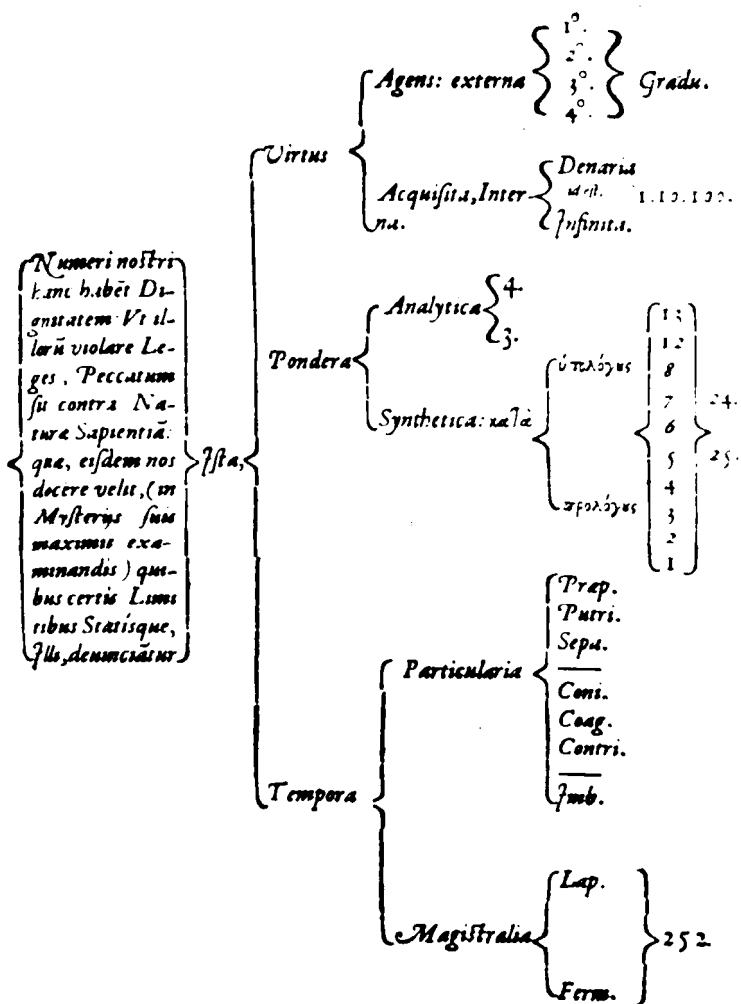


Fig. 25. Table of numbers derived from the quaternary, essential "in the explanation of nature's greatest mysteries". From Dee, *Monas Hieroglyphica*, 1564, fol. 26^v.

assigned by God to the numbers" derived from the quaternary, numbers that were indispensable "when elements are to be weighed, when measures of time are to be determined, [and] finally when the power and virtue of things have to be expressed in certain degrees". Though he never stated it explicitly, it is obvious that Dee was referring to the

artificial transmutation of matter performed by the alchemist, a process that paralleled the natural formation of metals in the earth. As he stressed, the numbers presented in the table were so essential “in the explanation of Nature’s greatest mysteries” that it would be “a sin against the wisdom of Nature to violate their laws...”⁴⁸⁹

The association of Pythagorean mathematics with the alchemical process was far from uncommon. In *De mineralibus* Albertus Magnus (c. 1200-1280) referred to “certain alchemical books ascribed to Plato” in which “number or numerical proportion is called the form of a metal”.⁴⁹⁰ By mastering the correct numerical proportions, the alchemist was able to transform any element into the desired metal. A poetic expression of this conception can be found in Thomas Norton’s *The Ordinall of Alchemy*, a work Dee found important enough to transcribe himself and have bound in purple velvet.⁴⁹¹ Here Norton instructs the reader to break down the matter into the four constituent elements, the qualities of which should then be combined

... by ponder right
 With Number and Measure wisely sought,
 In which three resteth all that *God* wrought:
 For *God* made all things, and set it sure,
 In Number Ponder and in Measure...⁴⁹²

Norton’s evocation of the biblical dictum that God created all things “in number, weight and measure” to substantiate the employment of mathematics in the alchemical work was rooted in the common notion that the technical arts, including alchemy, imitated the works of nature, a notion that was central to the enterprise undertaken in Dee’s *Monas hieroglyphica*. By incorporating the numerical proportions that constituted the laws behind creation, the symbol would not only give insight into the works of the Creator but also

⁴⁸⁹ Dee, *Monas hieroglyphica*, pp. 206/207-212/213.

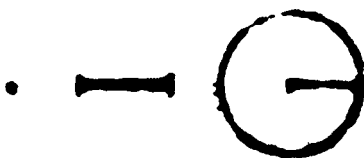
⁴⁹⁰ Albertus Magnus, *Book of Minerals*, III.I.6, p. 168.

⁴⁹¹ Dee’s copy is now Oxford, Bodleian Library, MS Ashmole 57, according to a note acquired by him in 1577. In 1556, however, he compiled a list of 55 alchemical works he claimed to have read in July that year, which includes a reference to “Norton anglice”. (Roberts and Watson (eds.), *John Dee’s Library Catalogue*, Appendix 2, no. 45.) This might explain the number of parallels between *Monas hieroglyphica* and Norton’s text. For a discussion, see Clulee, *John Dee’s Natural Philosophy*, especially p. 100.

⁴⁹² Norton, *The Ordinall of Alchemy*, pp. 57-58.

Fig. 26. The point, line and circle as the constituent elements of the Creation.

From Dee, *Monas Hieroglyphica*, 1564, fol. 12^r.



bring the natural sciences and technical arts virtually to completion. Significantly, Dee evoked the very same biblical passage when describing the subject matter of his research in a letter to Sir William Cecil, the State Secretary of Queen Elizabeth. Writing from Antwerp in 1562, Dee explained his decision to travel to the Netherlands in search for publishers and printers by pointing out that British scholars seemed to be uninterested in the “wonderfull sciences” he was treating:

[in] our cuntry hath no man (that I ever yet could herre of) hable to set furth his fote, or shew his hand ... in the Science *De numeris formalibus*, the Science *De Ponderibus mysticis*, and the Science *De mensuris divinis*: by which three the huge frame of this world is fashioned, compact, rered, stablished, and preserved...⁴⁹³

The underlying rationale of Dee’s belief that the Monas symbol displayed the numerical laws of creation in a geometrical form was clearly expressed at the outset of the work. In the very first of the theorems presented in *Monas hieroglyphica* Dee describes the divine creation not as an arithmetical progression according to the conventional Pythagorean scheme, but instead as a gradual unfolding of geometrical elements:

The first and most simple manifestations and representations of things, non-existent as well as latent in the folds of Nature, happened by the means of straight line and circle. Yet the circle cannot be artificially produced without a straight line, or the straight line without the point. Hence, things first began to be by way of a point, and a monad [fig. 26].⁴⁹⁴

⁴⁹³ Dee, “Letter of Dr. John Dee to Sir William Cecyl”, pp. 6-7. Dee does not mention *Monas hieroglyphica* in the letter, but since it was printed in Antwerp two years later, it is plausible that this passage was an allusion to this particular work.

⁴⁹⁴ Dee, *Monas hieroglyphica*, pp. 154/155.

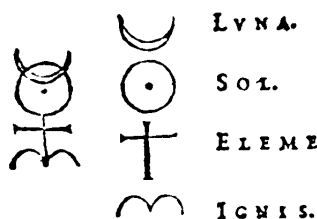


Fig. 27. The constituent elements of the Monas symbol, signifying different realms of the cosmos. From Dee, *Monas Hieroglyphica*, 1564, fol. 13^v.

As Nicholas Clulee has pointed out, this scheme was clearly based on Proclus' commentary on the *Elements* of Euclid, a work that Dee acquired in 1560, four years before the publication of *Monas hieroglyphica*.⁴⁹⁵ In Proclus' text we find many of the commonplace definitions that Dee presents in the *Mathematicall Praeface*, including the definition of the point or unity as the originative principle of the line and the circle, the basic constituents of all geometrical figures.⁴⁹⁶ As Dee would later do, Proclus also defines a line, whether straight or circular, as the "flowing of a point", a definition referred to by Aristotle in *De anima* and commonly repeated in mathematical literature from antiquity to the seventeenth century.⁴⁹⁷

But throughout the text Proclus also developed a theme entirely missing from Dee's *Mathematicall Praeface* but fundamental to the task undertaken in *Monas hieroglyphica*: the analogy between the derivation of geometrical figures from the point and the unfolding of the universe from the innermost godhead. Elaborating a notion from Plato's *Timaeus*, Proclus describes how the godhead, the "demiurgic Nous", set up "two principles in himself, the straight and the circular, and produced out of himself two monads, the one acting in a circular fashion to perfect intelligible essences, the other moving in a straight line to bring all perceptible things to birth".⁴⁹⁸ Accordingly, the circle was a symbol of the incorruptible heavens, while the line signified the constantly changing world of generation.⁴⁹⁹ Significantly, Dee not only opened *Monas hieroglyphica* by presenting an identical scheme of

⁴⁹⁵ Robert and Watson (eds.), *John Dee's Library Catalogue*, no. 266, now Oxford, Bodleian Library, shelfmark Savile W17. Unfortunately, I have not had the opportunity to see this copy. Cf. Clulee, *John Dee's Natural Philosophy*, p. 91.

⁴⁹⁶ Proclus, *Commentary on the First Book of Euclid's Elements*, pp. 75-80.

⁴⁹⁷ Proclus, *Commentary on the First Book of Euclid's Elements*, p. 79. Cf. Dee, *The Mathematicall Praeface*, sig. *.j.; and Aristotle, *On the Soul*, 409a4, p. 51.

⁴⁹⁸ Proclus, *Commentary on the First Book of Euclid's Elements*, p. 88. Cf. Plato, *Timaeus*, 36A-36C, pp. 65-73.

⁴⁹⁹ Proclus, *Commentary on the First Book of Euclid's Elements*, p. 117.









		Saturnus.			Mars.
		Jupiter.			Venus.
		Mercurius.			Mercurius.

Fig. 28. The astrological signs restored to their proper shapes. From Dee, *Monas Hieroglyphica*, 1564, fol. 14^r.

creation, but also attributed the same symbolic significance to the circular and linear elements of the Monas, letting the circle and semi-circle represent the unchangeable heavens and the rectilinear cross the world of elements (fig. 27).⁵⁰⁰

The meanings that Dee attributed to these geometrical elements were partly in keeping with alchemical and astrological tradition; and throughout the text he exploited the ambiguous meanings of the circle and semicircle, traditionally representing the sun and the moon as well as gold and silver, to substantiate a range of alchemical and astronomical notions. Nonetheless, by grounding the significance of these symbols in the metaphysical scheme of creation expounded by Proclus, Dee also made room for reinterpretation. By this move he could not only legitimize the claim that the “hieroglyphical signs of the five planets” were all composed of the circular and linear elements and originally stemming from the ancient sages, the “oldest wise men” (fig. 28); he could also claim to have restored these symbols to those “mystical proportions” they had had “in an age long past”, or at least which “our forefathers had wished” they should have. Through this restoration they had once again become characters “imbued with immortal life ... able to express their especial meanings most eloquently in any tongue and to any nation”.⁵⁰¹

Thus, by graphically mirroring the process of creation as described by Proclus, the Monas symbol, as well as the alchemical symbols derived from it, accurately represented the “law of creation”,

⁵⁰⁰ Dee, *Monas hieroglyphica*, pp. 160/161.

⁵⁰¹ Dee, *Monas hieroglyphica*, pp. 160/161, 120/121.

implying that they could be employed to interpret nature when explicated according to the proper numerological and kabbalistic methods.

Scriptural exegesis

Dee's original move to ground the significance of his "Hieroglyphic Monad" in Proclus' scheme of creation was essentially what made the symbol a "real kabbalah", a kabbalah treating "that which is", as opposed to the "kabbalistical grammar", which only treated "that which is said" by relying on the "well known letters that can be written by man". Yet it would be a mistake to take this rhetorical opposition as an attempt to divorce natural philosophy from textual interpretation by giving nature primacy over Scripture. Scriptural and linguistic exegesis constitutes an important theme in *Monas hieroglyphica*, and throughout the text Dee took pains to show how the letters of the Latin, Greek and Hebrew alphabets correspond to the mathematical laws of creation, as well as how the symbol can shed light on a number of scriptural passages. Rather than emphasizing nature at the expense of language, Dee's "real kabbalah" was an attempt to demonstrate the common foundation of scriptural exegesis and natural philosophy.

In stressing that the letters of the Latin, Greek and Hebrew alphabets were all derived "from points, straight lines and the circumferences of circles", Dee highlighted the correspondence between the shape of the letters and the process of creation as described in the Pythagorean teachings. This notion was by no means uncommon and we find it clearly stated in a number of works with which he was familiar. In his heavily annotated copies of Jacques Gohory's *De usu et mysteriis notarum liber* (1550) and Guillaume Postel's *De originibus* (1553), the line or letter I was stated to be the fundamental constituent of all alphabetical characters, reflecting the divine unfolding of the universe.⁵⁰² Similarly, Reuchlin associated the geometrical form of the letters with Pythagorean number symbolism, pointing out that the number ten was written "in Greek with an iota, an upright line, and in Hebrew with a simple point" since both the line and the point "stand for simple unity", from which the denary arises and to which it ultimately returns (i.e. $10=1+0=1$).⁵⁰³

⁵⁰² Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE.19.8²), sig. B.iiij.^v; Postel, *De originibus* (London, Royal College of Physicians, shelfmark D 144/14, 21b), p. 22.

⁵⁰³ Reuchlin, *On the Art of Kabbalah*, pp. 192/193. Cf. also Postel's introduction to *Sepher Yetzirah*, where he presents a similar, but not identical, geometrical scheme for the construction of the alphabets which he associated with the Pythagorean

In *Monas hieroglyphica*, Dee engaged the reader of in a string of similar meditations to demonstrate the numerical principles behind the letters of the alphabet. But it is also evident that he considered this correspondence between the shape of the letters and the divine process of creation to be fundamental to unlocking the hidden meanings of Scripture. After pointing out that all letters were derived from simple geometrical elements, he immediately went on to paraphrase the Gospel of Matthew, claiming that it was possible to consider “the whole meaning of the Mosaic law ... even to the fulfilment of every jot and tittle [*iota & apex*]”, since the basic constituents of Scripture are the Hebrew letters *yod*, designated as a straight line, and *chireck*, designated as a single point.⁵⁰⁴ The hidden meanings of Scripture were thus enclosed even within the very elements of the written text, the individual letters, which accurately represented the laws of creation, making Scripture truly the consummate incarnation of the divine Word.

Thus, rather than rejecting the traditional form of kabbalah, Dee grounded it in the Pythagorean scheme of creation expounded by Proclus, occasionally taking the opportunity to demonstrate how his “real kabbalah” agreed with Hebrew tradition. In the introduction, for instance, he points out that the Holy Trinity, made up of three “consustantial monads”, could be graphically represented as a straight line, formed by two points, and the remaining point situated above it — a geometrical arrangement identical to the conventional Hebrew abbreviation of the ineffable Tetragrammaton, the holy Name of God.⁵⁰⁵

In most cases, however, Dee relied on a fairly conventional form of Pythagorean number symbolism, which he regarded as identical to the kabbalistic technique known as *tsiruf*. One of the most remarkable examples of this appears towards the end of the text. After deriving the number 24 from the quaternary, Dee concludes the *Monas hieroglyphica* with a digression on the Revelation of John, remarking

process of creation: *Abrahami Patriarchae Liber Jezirah*, sig. A.iiij.^r.

⁵⁰⁴ Dee, *Monas hieroglyphica*, pp. 126/127. Matthew 5:18 reads “Amen quippe dico vobis, donec transeat caelum et terra, iota unum, aut unus apex non praeteribit a lege, donec omnia fiant”, in King James’ version rendered as “For verily I say unto you, Till heaven and earth pass, one jot or one tittle shall in no wise pass from the law, till all be fulfilled.” See also *Monas hieroglyphica*, pp. 182/183, where Dee makes a similar reference to this biblical passage.

⁵⁰⁵ Dee, *Monas hieroglyphica*, pp. 126/127.

that “John, the archpriest of the divine mysteries, witnesses in the fourth and the last part of the fourth chapter of the Apocalypse” that the Lord sits on a throne surrounded by four animals and 24 elders who, having fallen “prostrate from 24 seats placed in a circle”, proclaim: “Thou art worthy, O Lord, to receive the glory, and the honour, and the power, for Thou hast created all things.”⁵⁰⁶ Thus, the quaternary not only contained the principles of nature and the sciences; it also gave man access to the hidden meanings of Scripture, enabling the interpreter to unfold the mysteries and allegories of the biblical prophets.

The power of mathematical symbolism

Dee’s reliance on common notions and sources in *Monas hieroglyphica* should not overshadow the fact that his “Hieroglyphic Monad” was a creation of great originality and almost breathtaking ambition. Whereas it was a common belief that the knowledge of the ancient sages was accessible to contemporary man through a variety of symbolic languages, Dee also fused these different symbolic expressions — hieroglyphic, allegorical, kabbalistic and mathematical — into a single geometrical figure; a kind of unified “meta-language”, epitomizing the mysteries of a variety of traditions and simultaneously speaking the language of them all.

This fusion of different symbolic languages could be legitimized not only by their shared historical origin, but also by their common epistemology, ultimately rooted in the Neoplatonic philosophy. The underlying assumptions of Pythagorean number symbolism were essentially identical to those bolstering the Renaissance notion of hieroglyphs; that is, that symbolic expressions can “awaken” innate ideas in the human mind and thereby produce an intuitive or non-discursive insight into the true essences of things and their Creator. This kinship between hieroglyphics and number symbolism is repeatedly echoed in Dee’s *Monas hieroglyphica*, in which he refers to his mathematical meditations as “good hieroglyphical argument”.

Though the Pythagorean teachings have often been seen as a major factor behind the emergence of seventeenth century “science”, one cannot emphasize strongly enough the symbolic nature of mathe-

⁵⁰⁶ Dee, *Monas hieroglyphica*, pp. 208/209, 216/217-218/219. Cf. Revelation 4:4, 8-11.

matics in these teachings. As Johannes Reuchlin stressed, “all Pythagorean philosophy is mystical and allegorical, especially where it concerns the divine”, and he scoffed at those who assumed that the “most profound art” of the Pythagorean teachings, the art of numbers, was “absolutely straightforward and quite unmetaphorical” — as if “the source of everything was a flying slide-rule”.⁵⁰⁷ Likewise, when explaining the fundamental role of mathematics in understanding the divinity, Nicholas of Cusa stressed that “visible things are truly images of invisible things and ... from created things the Creator can be knowably seen as in a mirror and a symbolism. ... spiritual matters (which are unattainable by us in themselves) are investigated symbolically...”⁵⁰⁸

As already noted, the remarkable explanatory power of mathematics was a consequence of its unique ontological status. Conceived as the “patterne in the minde of the Creator”, which was “reflected” or “mirrored” in physical nature as well as in the human soul, mathematics bridged the chasm between the terrestrial and spiritual domains. As Dee’s friend and colleague Robert Recorde wrote, the ancient philosophers “searche all secrete knowledge and hid misteries, by the aide of nomber. For not onely the constitution of the whole worlde, dooe thei referre to nomber, but also the composition of manne, yea and the verie substaunce of the soule”.⁵⁰⁹ In his *Mathematicall Praeface* Dee delineated an identical scheme, stressing that numbers existed in three forms — in the Creator, in nature and in the soul of man — and took the opportunity to quote “the old *Philosophers*” who taught “*Mans Soule, to be a Number mouyng it selfe*”, a saying commonly attributed to Pythagoras.⁵¹⁰

Between these three forms of numbers, however, there were essential differences. Invoking a common terminology, Dee denominated the three different forms of numbers as “*Numbers Formall, Naturall, and Rationall*” respectively. Formal numbers, residing in the divine mind, were termed “*Number Numbryng*”, a literal translation of the Latin expression *numerus numerans*, meaning an active process

⁵⁰⁷ Reuchlin, *On the Art of the Kabbalah*, pp. 186/187.

⁵⁰⁸ Nicholas of Cusa, *On Learned Ignorance*, I.11, p. 61.

⁵⁰⁹ Recorde, *The whetstone of witte*, sigs. b1^{r-v}.

⁵¹⁰ Dee, *The Mathematicall Praeface*, sigs. *.j.^v, a.ij.^r. See also Reuchlin, *On the Art of the Kabbalah*, p. 215, who attributes this dictum to Pythagoras, and Proclus, *Commentary on the First Book of Euclid’s Elements*, pp. 14, 112. Cf. Aristotle, *On the Soul*, 408b35-409b32, pp. 48-53, where this notion is criticized.

of “discretion, discerning, and distincting”, which “in the beginnyng, produced orderly and distinctly all thinges”. Likewise, rational numbers residing in the human soul could be termed “*Number Numbering*”, since they exist through our active process of counting things, and yield certain knowledge of creation. Numbers existing in the material creation, by contrast, were termed “*Number Numbered*” — again a faithful rendering of the common expression *numerus numeratus* — indicating a passive mode of being, existing as mere objects of human and divine numbering.⁵¹¹

Man’s use of numbers was thus conceived of as mirroring the divine “numbering” of things in a distorted and adulterated form, enabling us to grasp mentally the properties of nature in which the divine activity was reflected “as in a glass and in an enigma”. But it could also lead us back to the original archetype, the Creator Himself. In the *Mathematicall Praeface* Dee beautifully describes this dual function of mathematics:

...we may both winde and draw our selues into the inward and deepe search and vew, of all creatures distinct vertues, natures, properties, and *Formes*: And also, farder, arise, clime, ascend, and mount vp (with Speculatiue winges) in spirit, to behold in the Glas of Creation, the *Forme of Formes*, the *Exemplar Number* of all thinges *Numerable*: both visible and inuisible: mortall and immortall, Corporall and Spirituall.⁵¹²

Though Dee never elaborates upon the theme in the *Mathematicall Praeface*, it is clear that this dual nature of mathematics involved two distinctly different ways of employing numbers, aimed at two distinctly different goals. In the common mathematical arts, such as arithmetic, geometry and music, the objects of study were natural numbers inherent in the creation, “numbers numbered”. In “formal mathematics”, however, the objects of study were *numeri numerante*, “numbers numbering”, residing in the divine mind of the Creator. In both cases the reliability of mathematical knowledge was guaranteed by the reflection of the divine activity in the human soul; but they also led to two distinctly different forms of knowledge.

⁵¹¹ Dee, *The Mathematicall Praeface*, sig. *.j.^v.

⁵¹² Dee, *The Mathematicall Praeface*, sig. *.j.^{r-v}.

The distinction between “formal” and “natural” mathematics is reflected in Dee’s differing ways of employing mathematics in the *Mathematicall Praeface* and his earlier *Monas hieroglyphica*. The conspicuous difference between these two works has often disturbed historians who have taken his *Praeface* as signalling an emerging “scientific” approach to nature, despite the fact that it was written only a few years after the overtly “occult” *Monas hieroglyphica*. But rather than presenting contradictory views of how mathematics was to be applied in natural philosophy, the two works were complementary to each other, focusing on two divergent but equally valid aspects of Renaissance mathematics. While *Monas hieroglyphica* was concerned with a graphical symbol manifesting God’s “numbering” of things — thereby providing “conclusive proofs”, as he put it, that “the logos of the creative universe works by rules” — the *Praeface* was focused almost exclusively on the common mathematical arts, on mathematics as applied to things “numbered”. Only a few suggestive remarks in the *Praeface* hint at the extraordinary powers that mathematics possessed beyond its application in the common arts — for instance, his parenthetical assertion that “formal numbers” could be employed to predict the future, to “forseyng, concludyng, and forshewyng great particular euent[s], long before their comming”.⁵¹³

The distinction between “formal” and “natural” numbers, *numeri numerantes* and *numeri numerati*, had a long tradition quite independent of the Pythagorean teachings and stretching back to the Middle Ages. For instance, in the *De numeris mysticis*, John Pecham (1225-1292) followed the earlier example of Augustine in regarding the *numeri numerantes* as a means for interpreting scriptural passages in which numbers appeared as symbols of deeper meanings — for instance, the Revelation of John.⁵¹⁴ As Pecham emphasized, these “metaphysical” numbers were no mere abstractions of the human mind, but had a real existence outside our mental conceptualization of them. In contrast to natural numbers which were grounded in natural bodies, however, the *numeri numerantes* were grounded in

⁵¹³ Dee, *The Mathematicall Praeface*, sig. *j.v.

⁵¹⁴ Pecham, *De numeris mysticis*, chs. 13-40. For a survey of this tradition, see Hopper, *Medieval Number Symbolism: Its Sources, Meaning, and Influence on Thought and Expression*.

mathematical bodies — in points, lines, surfaces and geometrical bodies.⁵¹⁵

Dee's attempt to manifest the "*Number Numbryng*" of the Creator in the form of a geometrical symbol was thus consistent with a long tradition of mathematical thought, a tradition in which mathematics was considered a means by which man could gain access to the divine Word by uncovering the hidden meanings of Scripture. But in *Monas hieroglyphica* we also find this notion filtered through an overtly Neoplatonic and Pythagorean conception of mathematics which gave the study of formal numbers a much wider remit than scriptural interpretation. To Dee, the inquiry into "formal" numbers entailed a mystic ascent of the soul, making the divinity apprehensible through a direct, intuitive comprehension of the divine Word.

The distinction between "formal" and "natural" mathematics as understood by Dee had its deepest roots in the Platonic distinction between "understanding" and "intellection" — *dianoia* and *noesis*.⁵¹⁶ The difference between these two forms of intellectual comprehension is most clearly illustrated in Plato's famous parable of the "Divided Line", in which he describes "understanding" (*dianoia*) as a way of reasoning that takes its point of departure from "visual forms", mentally envisioned pictures and diagrams, which it uses as hypotheses to derive certain conclusions. By contrast, "intellection" or *noesis* does not rely on "images" or "lower realities" to come to conclusions. Instead, it relies solely on reason itself — in Greek, *logos* — and advances by way of dialectics from hypotheses, not to a conclusion, but to a first principle that is not hypothetical. By relying solely on the rules inherent in the human mind, the dialectical reasoning "may force its way up to something that is not hypothetical, and arrive at

⁵¹⁵ Pecham, *De numeris mysticis*, ch. 2, p. 334: "Numeratus numerans est numerus mathematicus qui est in rebus numerabilibus, non ut quidam falso ymaginantur in anima numerante. Non enim differunt numerus mathematicus et numerus naturalis qui dicitur numeratus, nisi sicut corpus mathematicum et corpus naturale." See also Barnabas Hughes' introduction, pp. 7-8.

⁵¹⁶ I rely on Davis and Vaughan's translation of Plato's *Republic*, in which these terms are rendered as "understanding" and "reason" respectively, a translation that in this context might be confusing since these forms of comprehension correspond to the mental faculties denoted as *ratio* and *intellectus* in Latin. To minimize the confusion I will consistently use the term "understanding" to denote *dianoia* and "intellection" to denote *noesis*.

the first principle of everything and seize it in its grasp”.⁵¹⁷ To Plato, dialectics represented the jewel in the crown of the sciences; it was the science of discoursing according to the reality of things, which discarded unexamined hypotheses and, instead, established every hypothesis firmly by carrying it back to the very first principle of all. Thus, dialectics was the only method that “attempts systematically to form a conception of the real nature of each individual thing”.⁵¹⁸

Proclus, in his commentary on Euclid’s *Elements*, from which Dee took the geometrical scheme of the Monas symbol, drew heavily on Plato’s account when outlining the epistemological foundation of mathematics. Like Plato, Proclus stressed the innate character of all mathematical reasoning, maintaining that the certainty of mathematical conclusions rested on the fact that the human soul bore the reflection of the divine Nous, the Mind of the Creator, within itself. As the “likeness and external replica” of the divine Nous, the human soul was “a tablet that has always been inscribed and is always writing itself and being written upon by Nous”.⁵¹⁹ Like Plato, Proclus also emphasized that “general mathematics” — geometry, arithmetic and the kindred mathematical arts — is based on “dianoetic thinking”: unlike noetic thinking “it is not the kind of thought that characterizes intellect, steadfastly based on itself, perfect and self-sufficient”. Proclus did not reject the role of *noesis* or intellection in mathematics, however. Borrowing an expression from the *Republic*, Proclus referred to dialectics as the “capstone” of mathematics, since it possesses the power to perfect mathematics and lead the mathematician to an understanding of the divine Mind: dialectics “perfects general mathematics and sends it up towards Nous by means of its peculiar powers...”⁵²⁰

Though Proclus was by no means exhaustive when explaining how dialectics was to be understood in a mathematical context, defining it simply as “the procedures ... of analysis, division, definition, and demonstration”, it is not difficult to see how Dee could associate the distinction between *dianoëa* and *noesis* with the Pythagorean conception of “natural” and “formal” mathematics: the study of “*Number*

⁵¹⁷ Plato, *Republic*, 509D-511E, pp. 220-223.

⁵¹⁸ Plato, *Republic*, 533A-535A, pp. 247-249. For an account of Plato’s dialectics, see also the *Sophist*, 253B-268D, pp. 399-459.

⁵¹⁹ Proclus, *Commentary on the First Book of Euclid’s Elements*, p. 14.

⁵²⁰ Proclus, *Commentary on the First Book of Euclid’s Elements*, pp. 35-36.

Numbred" and "*Number Numbryng*". For as Proclus made clear, the remarkable power of the dialectic method was due to the fact that it reflected the activity of the divine Mind, thereby gaining the status of the "unifying principle" of all sciences. As Proclus wrote, the divine Mind "contains in itself all dialectic resources in undifferentiated fashion, combining their variety in simplicity, their partiality in completeness of insight, their plurality in unity".⁵²¹

Needless to say, the numerological exercises undertaken in *Monas hieroglyphica* do not bear the slightest resemblance to the dialectical method as described by Plato. What dialectics and formal mathematics had in common was their epistemological function, a function they shared by being assigned a similar ontological status in the cosmogonical scheme of things. Filtered through the Pythagorean conception of mathematics as "the patterne in the minde of the Creator", pure intellection or *noesis* could be identified as the study of "formal" numbers, that is, mathematics not as applied to countable things, but as an autonomous and self-referential system of numerical relations.

Pythagorean number symbolism constituted such an autonomous system of numerical relations, having no referent "outside itself" in the world of countable things. Instead, the various arithmetical permutations and progressions expounded in the Pythagorean teachings were conceived of as internally reflecting the activity of the divine Mind, God's "Continuall *Numbryng* of all thinges". Bearing the image of the divine Mind in his soul, man was able to envisage this activity through an introspective act of contemplation, advancing to the "first principle of all principles", as Plato put it in the *Republic* — the divine Word — by focusing his attention on the "inner word" residing within himself.

The power of Pythagorean symbolism, then, lay in its function as a means to self-knowledge, whereby the human mind could be "raised" to a knowledge of the divinity. As Petrus Bungus wrote in his monumental *Numerorum mysteria* (1599), "unity, the source and origin of numbers, seems to be similar to the divine origin and eternal principle of created things: for by means of it the human mind is able to be raised in a corresponding manner to the contemplation of

⁵²¹ Proclus, *Commentary on the First Book of Euclid's Elements*, p. 36.

God.”⁵²² In graphically visualizing God’s “*Numbryng* of thinges” and incorporating the different aspects of Pythagorean number mysticism into a unified symbol, Dee’s “Hieroglyphic Monad” became an instrument by which the mind was able to transcend dianoetical reasoning and raise itself into pure intellection, *noesis*.

“Occult” intellection and *Mens adepta*

Dee’s adherence to this Platonic epistemology is to a large extent left implicit in *Monas hieroglyphica*. However, an explicit but unexpected expression of these notions appears in his *General and Rare Memorials pertayning to the Perfect Arte of Navigation* (1577), which was a forceful appeal for the employment of the natural sciences to promote the expansion of the British Commonwealth. Introducing the text is a curious piece written by an “unknown freend”, who in lofty strains pays his tribute to the learned Doctor Dee, a scholar who might well be hailed as a “CHRISTIAN ARISTOTLE”. The choleric tone of this anonymous devotee when assailing the enemies and “Hypocritically freends” of Dee is unmistakably his own, however, and the text is generally taken to be a naïve attempt to defend himself disguised as an avid admirer.

But appended to the introduction is also a brief note written by the same “unknown friend”, revealing that the whole introduction is a philosophical pun marked by Dee’s peculiar brand of humour. As stated in the note, the “unknown friend” was not only a passive admirer of the “honest Ientleman, and *Philosopher*” Dee, but also actively involved in the printing of the work. Assisted by the likewise anonymous “*Mechanicien*”, who had collected and penned the text “from the sayd *Philosopher* his mouth”, the unknown friend had “at his own charges” put the whole treatise into print. In fact, as the caption of the note makes clear, the fictitious “unknown friend” as well as the “*Mechanicien*” were a deliberate witticism based on the “Three diuers Properties, States, or Conditions of MAN”. In a diagram (fig. 29) Dee presents the three levels of comprehension according to the

⁵²² Bungus, *Numerorum mysteria*, p. 13: “Unitas numerorum fons, & origo, Divinae creaturarum origini, aeternoque principio similis esse videtur: per ipsam enim humana mens in Dei contemplationem congruenter tolli potest.” On Bungus and his work, see Ernst, “Kontinuität und Transformation der mittelalterlichen Zahlensymbolik in der Renaissance: Die *Numerorum mysteria* des Petrus Bungus.”

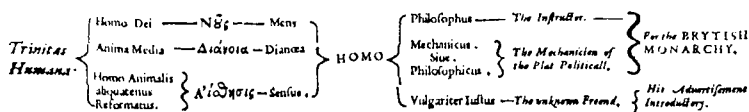


Fig. 29. The three-fold division of the human soul. From Dee, *General and Rare Memorials pertayning to the Perfect Arte of Navigation*, 1577, sig. Δ.j'.

Platonic scheme — *noesis*, *dianoia*, and sense perception — and associates them with the three “personalities” involved in the work’s coming into being, the *Philosopher* Dee, the *Mechanicien* and the unknown friend — all three representing different aspects of the human soul.⁵²³

But it is in Dee’s differing ways of employing mathematics that we can see how the distinction between these forms of comprehension was understood in practice. The conspicuous differences between Dee’s *Monas hieroglyphica* and the somewhat later *Mathematicall Praeface* were to a large extent a result of the different emphases and focuses of the two works. In the *Mathematicall Praeface*, which was primarily an exposition of the common mathematical arts, Dee describes mathematical reasoning as “*Dianoeticall* discourse” in accordance with Plato’s account in the *Republic* (which he quotes at length in the section on geometry) and stresses the status of mathematics as a mean between mere “coniecture, weenyng and opinion” and “high intellectuall conception”.⁵²⁴ In *Monas hieroglyphica*, by contrast, we find mathematical symbolism employed as a means to transcend dianoetical reasoning and attain such “high intellectuall conception”. In the introduction Dee claimed that the common ‘arithmetician’ who had always treated numbers as mental abstractions and “subjected them to various mental processess in the recesses of a *dianoia*” would be astonished when faced with the *Monas* symbol, because here “their souls and formal lives [*Animae, Formalesque vitae*] are separated from them so as to enter our service”.⁵²⁵

Though Dee never uses the terms *noesis* or intellection, it is clearly this he refers to, since the intellect was commonly regarded as the mental faculty enabling man to abstract the *forma* from the *materia*.

⁵²³ Dee, *General and Rare Memorials pertayning to the Perfect Arte of Navigation*, sigs. Δ.j. r-v.

⁵²⁴ Dee, *The Mathematicall Praeface*, sig. 100 iij.v. The *Republic* is quoted on sigs. a.ij. v-a.ijj.f.

⁵²⁵ Dee, *Monas hieroglyphica*, pp. 128/129.

Reuchlin put it succinctly when explaining how reason (*ratio*) summons the intellect (*intellectus*) to its aid in order to abstract form from matter:

To this end intellect raises itself up in a purer form, affording the mind [*mens*] an opportunity to flow into it. Relying on the clarity of the mind, it recognizes some forms completely free from the corporeal essence, nature and mechanism, and as a result not bounded in time or space. They should be thought of as being beyond the heavens...⁵²⁶

By abstracting the “souls and formal lives” of the numbers, Dee treated them as they exist “beyond the heavens”, in the innermost recesses of the divinity, whose “Continuall *Numbryng* of all things, is the Conseruation of them in being”. In identifying this formal mathematics as the “real kabbalah” — *Cabala Realis* — Dee was in keeping with other Christian kabbalists who forged various traditions into more or less syncretistic systems. In his *Conclusiones* Pico not only maintained that kabbalah operates through numbers, but also made the qualifying remark that to engage in kabbalah is “to practice every *formal*, continuous and discrete, quantity” of a subject.⁵²⁷

In giving mathematical symbolism a visual form, incorporating its different facets into an integrated hieroglyph, Dee in a sense reinforced the recondite nature of the knowledge he was trying to convey, enveloping symbols within new symbols. Yet it was the visual form that made it accessible to the mind in a manner surpassing the conventional form of Pythagorean symbolism. In the introduction Dee stresses the visual aspect of his “Hieroglyphic Monad” by pointing out that while the common ‘arithmetician’ treats his numbers “as abstracted from things corporeal, and as remote from sensual perception”, hidden “in the recesses of a *dianoëa*”, his symbol, by contrast, shows the numbers “as something, as it were, concrete and corporeal [*tanquam Concretus & Corporeus*]...”⁵²⁸

In an earlier chapter we have seen that Dee referred to the highest form of knowledge attained through the symbol as *mens adepta*,

⁵²⁶ Reuchlin, *On the Art of Kabbalah*, pp. 244/247.

⁵²⁷ Pico della Mirandola, *Conclusiones*, ‘Conclusiones numero XXXI secundum propriam opinionem de modo intelligendi hymnos Orphei secundum Magiam’, no. 21, p. 82: “Opus precedentium hymnorum nullum est sine opere Cabale, cuius est proprium praticare omnem quantitatem formalem, continuam et discretam.”

⁵²⁸ Dee, *Monas hieroglyphica*, pp. 128/129.

the “mind of the adept”, a phrase that recurs frequently in his marginalia in works describing the recollection of innate ideas.⁵²⁹ This notion also had a fundamental role in Proclus’ conception of mathematics, and in his commentary on Euclid’s *Elements* he argued that all mathematical reasoning was based on what he called “mathesis”, a term he defined as “recollection of eternal ideas in the soul”. Significantly, we find Dee referring to his interpretations of the Monas symbol as a form of “divine mathesis”, *Divina Matheseos*.⁵³⁰

One of the works in which the phrase *mens adepta* occurs frequently is the Hermetic texts collectively known as the *Corpus Hermeticum*, or, in Ficino’s Latin translation, the *Pimander*. As is well known, these texts attracted considerable attention in the Renaissance due to their unmistakable Christian overtones. The *Corpus Hermeticum* is introduced by a dialogue between the divine Mind and Hermes Trismegistus, who in a state of visionary dreaming is infused with the illuminating light of the divinity. Immersed in his dream, Hermes beholds a clear and joyful light from which a “word” emanates, bringing order to a chaotic and watery darkness. As the divinity addressing Hermes explains, the light he sees is “Mind, your God” and the “word” issuing from it “the son of God”. A few lines later it is stated that man carries the reflection of the divine Mind and Word within his soul; “that in you which sees and hears is the Word of the Lord, whereas your mind is God the Father...”⁵³¹

The conspicuous resemblance between this account of creation and the biblical Genesis led many Christian scholars to interpret the Hermetic texts as in agreement with Christian doctrines. In his chapter on the human soul, for instance, Agrippa treated the Hermetic conception of the human soul as conformable to the Augustinian notion of the “inner word”, stating that whoever knows himself “shall know all things in himself; especially he shall know God, according to whose image he was made ...”⁵³²

Judging from Dee’s annotations in the *Pimander* — which, curiously enough, have never been studied despite the persistence of

⁵²⁹ See above, pp. 166-169.

⁵³⁰ Proclus, *Commentary on the First Book of Euclid’s Elements*, p. 38; Dee, *Monas hieroglyphica*, pp. 180/181.

⁵³¹ Ficino, *Opera omnia*, p. 1837: “...quod in te videt et audit verbum domini: mens autem pater Deus...”

⁵³² Agrippa, *Three Books of Occult Philosophy*, III.36, pp. 579-582; the quoted passage is on p. 580.

Frances Yates' characterization of Dee as an "Hermetic magus" — it was not primarily the Hermetic notion of magic and the manipulative *magus* that attracted his attention. Though it should be remembered that the magical theme is not separable from the more salient religious and Gnostic themes of these texts, it was towards the latter aspects that Dee directed his attention in his marginal notes. A chapter of the *Pimander* that is directly relevant to *Monas hieroglyphica* and Dee's notion of the adept is the fourth dialogue, devoted to "The Mixing-Bowl or Monad" — *Crater sive Monas*. In this chapter Hermes explains to his disciple how God created all humans with soul and reason, but withheld from some of them the highest faculty, mind (*mens*). Instead, the Creator filled a "mixing-bowl" (*crater*) with it and sent it below as a "prize" (*certamen*) towards which men could strive. By immersing themselves in this divine gift, worthy men would be able to attain mind and rise up towards an "understanding of God" (*intelligentia dei*). A few lines further on it becomes clear that the "mixing-bowl" is an elaborate parable for the monad or unity, defined by Hermes as an *imago dei*, an "image of God", possessing the power to guide man to knowledge of the Creator. By contemplating this image with his "inner eye" (*oculus internus*), man may ascend towards God; indeed, it is the very vision itself of this *imago dei* that produces the ascent, since the image takes hold of man and draws him towards itself, like a load-stone attracting iron.⁵³³

While this chapter does not contain any annotations by Dee, there is a note referring to it in another work that can be found in the same volume, the *De insomniis* of Synesius of Cyrene (c. 375-430). This treatise, which is copiously annotated in Dee's hand throughout, is mainly concerned with dreams as a vehicle of extra-sensory perception, including prophetic experiences, transmitted through the agency of the imaginative spirit or *spiritus* (Greek, *pneuma*). Next to a passage describing how prophetic dreams take hold of those whose intellect is illuminated by a purified imagination, Dee has noted "*Mens adepta. Vide Hermetis Pimander cap. 4. de Monade.*"⁵³⁴

That Dee associated Synesius' notion of the imaginative *pneuma* with the Hermetic vision of the Monad suggests that he possessed

⁵³³ *Corpus Hermeticum IV*, in Ficino, *Opera omnia*, p. 1842. For Copenhagen's English translation, see *Hermetica*, pp. 15-17.

⁵³⁴ Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage, fol. 45^v.

quite an extensive knowledge of the Hermetic literature. The originally Stoic concept of *pneuma*, denoting a very subtle form of material substance permeating the cosmos and sustaining life and thought, is an important feature of these texts. In the Hermetic and Gnostic literature, it is common to make a distinction between lower animate persons, *phusikoi*, and higher “spiritual” people, the *pneumatikoi*, who by possessing a pure *pneuma* are capable of rising to a higher realm. As Brian Copenhaver has pointed out, this distinction is implicit in the chapter on the “Mixing-Bowl or Monad”, where the *pneumatikoi* appear as those worthy people who, by immersing themselves in the contemplation of the Monad, will rise to an “understanding of God”.⁵³⁵ Interestingly, we find that Dee in his use of the Pythagorean Y (fig. 19) chose to describe the person who walks the path ultimately leading to *mens adepta* as a *pneumatikos*.⁵³⁶

These notes suggest that Dee’s conception of *mens adepta* was considerably more complex than the brief remarks in *Monas hieroglyphica* lead one to believe. Not only did it involve notions coinciding with Ficino’s conception of the active intellect, the emanative power believed to “enlighten” the human mind and make the innate ideas apprehensible to man; it was also associated with Synesius’ notion of the imaginative spirit or *pneuma*, as well as the Hermetic and Pythagorean conceptions of the Monad. Rather than striving for conceptual consistency and coherence, Dee was involved in a philosophical discourse characterized by a condition of *heteroglossia*, in which differing discourses do not exclude each other, but intersect in a variety of ways, implying that texts are open to interpretation in a diversity of idioms.

This feature comes clearly to light when we pay attention to the way in which the concept of the adept, through its intricate philosophical setting, was connected to a Christian theological context. As Dee undoubtedly knew, the term *pneumatikoi* also has biblical significance and appears throughout the writings of St Paul, where it designates those “spiritual” persons (Lat. *spiritalis*) in whom the Holy Spirit dwells.⁵³⁷ In its pre-Christian form, the Greek *pneuma*, which was the denomination that Paul used for the Holy Spirit, had a variety of meanings and in most cases implied a purely terrestrial phe-

⁵³⁵ See Brian Copenhaver’s notes in *Hermetica*, pp. 101, 135.

⁵³⁶ Dee, *Monas hieroglyphica*, pp. 118/119.

⁵³⁷ Notably 1 Corinthians 2:1-3:1 and Romans 8:9.

nomenon serving as a mediator between body and soul. In some Hermetic and Gnostic texts, however, the *pneuma* appears as an entity directly related to the divine realm; and in Neoplatonic theology it is described as an intermediate between matter and pure spirit, a substance of the finest corporeity that serves as a bridge between the eternal ideas and the transitory world of the senses. Turning to the Greek *Corpus Hermeticum*, we find the *pneuma* assigned a role virtually identical to the Christian Holy Spirit: it is the vehicle of God's power on earth, an animating and vivifying force permeating the cosmos which occasionally lifts certain persons into a trancelike state transcending their ordinary intellectual and spiritual capacities, and inspiring them with divine understanding and prophetic gifts.⁵³⁸

The theological significance of *pneuma* and *pneumatikoi* underscores the fact that the religious implications of Dee's symbol was inseparable from its function in the natural sciences. True knowledge could only be attained through Christian faith, and faith and knowledge were ultimately directed towards the same goal — the ascent of the soul towards God. This theological setting also tied his work to a grander aspect of Christian historiography, making his symbol directly relevant to the redemption of the human soul. A recurrent notion in Christian thought is the idea that the Holy Spirit is the means by which reformation is conferred on man. According to Basil the Great, the Holy Spirit had a deifying power by which our hearts were raised up, progress was perfected, a heavenly and angelic conversation in God achieved, and finally the reformation of the soul fulfilled.⁵³⁹ In a similar vein, Robert Grosseteste remarked that "the renewed image is lost through sin; and the deformed image is taken away by the grace of the Holy Spirit".⁵⁴⁰ This reformation of man's soul was identical to his attainment of the beatific vision of God, when he sees the Lord "face to face". As stated in Scripture, the Spirit of the Lord will transform us into His glorious image when we behold His unveiled face — a transformation that constitutes the *summum bonum* of Christian faith.⁵⁴¹ Significantly, we find the words

⁵³⁸ On the Neoplatonic *pneuma*, see E. R. Dodds' commentary on Proclus, *The Elements of Theology*, pp. 313-321.

⁵³⁹ Ladner, *The Idea of Reform*, p. 158.

⁵⁴⁰ Grosseteste, *On the Six Days of Creation*, 8.6.1, p. 232.

⁵⁴¹ 2 Cor. 3:18: "Nos vero omnes, revelata facie gloriam Domini speculantes, in eandem imaginem transformamur a claritate in claritatem, tamquam a Domini Spiritu." For a classic survey of the Christian doctrine of the *summum bonum* and

“Summum Bonum” repeated in the margin of Dee’s copy of the *Pimander*, directly associated with his notes on *mens adepta* and next to a passage stating that the “highest good” of all knowledge is “to become God” (*deum fieri*).⁵⁴² In seeing “the mind of the adept” as identical with the Christian conception of the beatific vision of God, Dee clearly viewed his Monas symbol as a means to redemption, a notion he also hinted at in the text when claiming that the symbol provided protection against “the raw colds of ignorance” that had been “brought down on us by Adam”, ultimately causing “a healing of the soul and a deliverance from all distress...”⁵⁴³

A scholar who might have influenced Dee’s conception of *mens adepta*, and who shared his belief that all philosophy was aimed at the beatific vision of God, is Pico della Mirandola. In the *Heptaplus* Pico praised philosophy as a necessary preparation for the “true and perfect felicity” attained through God’s grace, a felicity that “carries us back to the contemplation of the face of God, which is the whole of the good ... and leads us to the perfect union with the beginning from which we sprang”.⁵⁴⁴ Though Pico’s influence on Dee is impossible to determine with certainty, his use of terms and formulations taken from the *Conclusiones* testifies to his familiarity with this particular work. Pico also shared Dee’s syncretistic approach to textual interpretation, fusing pagan, Jewish, Arabic and Christian conceptions into an encompassing scheme, based on the belief that all these textual sources more or less accurately reflected the revealed Wisdom of God.

In one of his kabbalistic theses, Pico states that what the kabbalists call *Metatron*, the first emanation issuing from the godhead, is “without doubt” the very same thing as that which Pythagoras had called “wisdom”, Parmenides “the intelligible sphere”, Zoroaster “the paternal mind” and Hermes “the son of God” — the Word.⁵⁴⁵ Though using different words, all of these ancient authors had re-

its pre-Christian roots, see Kirk, *The Vision of God: The Christian Doctrine of the Summum Bonum*.

⁵⁴² Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage, fol. 113^v.

⁵⁴³ Dee, *Monas Hierglyphica*, pp. 138/139, 198/199.

⁵⁴⁴ Pico della Mirandola, *Heptaplus*, p. 151.

⁵⁴⁵ Pico della Mirandola, *Conclusiones*, ‘Conclusiones Cabalistiche numero LXXI’, no. 10, p. 84: “Illud quod apud Cabalistas dicitur [Metatron], illud est sine dubio quod ab Orpheo Pallas, ab Zoroastre materna mens, a Mercurio Dei filium, a Pythagora sapiencia, a Parmenide sphaera intelligibilis nominatur.”

ferred to one and the same entity: the “first created mind” containing the “formal reasons of things”.⁵⁴⁶ In another of his theses, Pico identifies the kabbalistic *Metatron* with the active intellect, the much debated faculty which Dee explicitly associated with *mens adepta*.⁵⁴⁷ Pico describes the active intellect as a “light” illuminating the human mind, making the images (*species*) pre-existent within it knowable to the subject.⁵⁴⁸ Pico’s attempt to harmonize differing philosophical traditions may thus have lent support to Dee’s seemingly inconsistent association of *mens adepta* with both the active intellect and the Hermetic conception of the Word, both of them connected to the attainment of *anamnesis*, the recollection of innate ideas. Moreover, as Pico stated in one of his Averroist theses, the “greatest felicity of man” — *felicitas ultima hominis* — was attained when the active intellect joined with the possible intellect (i.e. the rational soul), a phrase clearly referring to the beatific vision of God as described in the *Hep-taplus*.⁵⁴⁹

The religious significance of the active intellect implied in Pico’s *Conclusiones* was fully brought to the fore in Guillaume Postel’s *De originibus*. In Dee’s heavily annotated copy of this text we find an underlined passage in which Postel explicitly identifies the active

⁵⁴⁶ Pico della Mirandola, *Conclusiones*, ‘Conclusiones in Theologia numero XXIX’, no. 3, p. 65: “Ideales rerum formalesque rationes effectiue a deo in prima creatura formaliter primo reperiri, cum theologica veritate tenemus. Correlarium. Ubi idee sunt idealiter, ibi non sunt formaliter, ubi sunt formaliter, ibi non sunt idealiter.”

⁵⁴⁷ See above, pp. 166–169.

⁵⁴⁸ Pico della Mirandola, *Conclusiones*, ‘Conclusiones secundum Themistium’, no. 2, p. 40: “Intellectus agens illuminans tantum, credo sit illud apud Themistium, quod est Metatron in Cabala.” *Ibid*, ‘Conclusiones secundum Simplicium’, no. 8, p. 39: “Sicut lumen colores non facit colores, sed preexistentes colores potencie uisibiles facit actu uisibiles, ita intellectus agens non facit species, cum non essent prius, sed actu preexistentes species potencia cognoscibiles faciunt actu cognoscibiles.” It should be noted that this did not necessarily represent Pico’s own view since the *Conclusiones* are divided into two sets: the first listing “historical theses”, and the second theses “according to his own opinion.” Both of the quoted statements belong to the former set. The division is partly inconsequential, however, since objections and criticisms can be found interspersed in many of the historical theses, making it extremely difficult to ascertain Pico’s own views.

⁵⁴⁹ Pico della Mirandola, *Conclusiones*, ‘Conclusiones secundum Auenroen’, no. 3, p. 34: “Felicitas ultima hominis est, cum contineatur intellectus agens possibili...”. Cf. ‘Conclusiones ... in doctrinam Platonis’, no. 19, p. 69, where Pico identifies the possible intellect with the rational soul.

intellect with the Holy Spirit, claiming that the universe is governed by God through His creative wisdom, the *spiritus Dei*, which is identical to what philosophers call the active and possible intellect, of which all human intellects are a part.⁵⁵⁰ Postel also dwells at length on the very first illuminated man, the prelapsarian Adam, whose consummate knowledge enabled him to name the creatures in accordance with God's Wisdom, the *Logos*. In a paragraph which Dee has carefully underlined and marked with the words "Adami lingua infusa" and "intellectus agens & possibilis", Postel once again identifies the active intellect with the divine Wisdom illuminating our mind, but this time also linking it to the Augustinian notion of the "inner word". As Postel writes, Adam had to conceptualize every name as an "inner word" (*vox interior*) before he could utter it as an "outer word" (*vox exterior*). Therefore "the very wisdom of God" infused into him the names of all things according to the reason of eternal truths ordering all things — what in Greek is called *logos* — by means of the active and possible intellects.⁵⁵¹

Although Dee clearly believed that he was illuminated by the Holy Spirit when (re)constructing the Monas symbol, it is by no means self-evident that he considered himself to have attained the mind of the adept. On the contrary, his numerous references to the symbol in other works he read suggest that he was continuously struggling to uncover its full significance, constantly finding new and deeper meanings within its geometrical shape. Furthermore, when turning to angelic magic in the 1580s, it was, as he explicitly stated, his failure to attain the wisdom he coveted by conventional means that made him appeal to the "blessed Angels of God" for help. But

⁵⁵⁰ Postel, *De originibus* (London, Royal College of Physicians, shelfmark D144/14, 21b), p. 46: "Ideo praesens mundus a Deo per *sapientiam creatam*, seu *spiritum Dei* mobilem, & universis rebus applicabilem *regitur*. Vocant illum Philosophi *intellectum agentem* & possibilem, cuius, *universi intellectus humani sunt partes*." (Dee's emphasis.)

⁵⁵¹ Postel, *De originibus* (London, Royal College of Physicians, shelfmark D144/14, 21b), p. 15: "Quum ab uno omnes ducamus originem, necesse est *ut primus parens coelitus sit edoctus de universarum rerum nomine*. Quum autem ante primum hominem nullus esset homo qui voce exteriori loqueretur, necesse est *ut voce interiori omnia rerum conceperit vocabula*. Quare ab ipsissima Dei sapientia fuisse *infusa nomina rerum*, secundum *veritatis aeternae omnia ordinantis rationem*, est omnino necesse. Divinitus itaque Adam accepit vocabula à Sapientia, seu *ab intellectu agente & possibili*, cuius *universi sumus membra*." (Dee's emphasis.) On *logos*, see p. 14.

whereas the means were different, his aim was clearly the same, and in spite of the disorderly character of the angelic conversations it is possible to discern a number of parallels between *Monas hieroglyphica* and his later attempts to recover the Adamic language. Like the Monas symbol, the Adamic alphabet corresponded to the image of the divine Word within the human soul, in some unaccounted for way reflecting the divine laws in its very graphical composition. When Dee during a session remarked upon the “Mysticall” order and “peculier vnchangeable proportion” of the Adamic alphabet, the angels explained that the letters represented “the Workmanship wherewithall the *soule of man was made like vnto his Creator*”.⁵⁵² Likewise, when instructing Dee to form words by joining the individual letters to specific numbers, the angels stressed that “all the World is made by numbers” and that these numbers were “*of reason and form*, and not of merchants”, causing Dee to make the clarifying note: “Numbers, *Numeri Formales*”, in the margin.⁵⁵³

Like the Monas symbol, the Adamic language also had the power to make the human soul susceptible to the illuminating light of the Holy Spirit. When Dee and Kelley studied “the mysteries of the Books” containing the Adamic language, the angels declared, God would descend “*his holy Spirit*” abundantly upon them, granting them “the gifts of the Holy Ghost, which setteth the soul o[f] man *so on fire that he pierceth into all things, and judgeth mightily*”. These divine gifts would make them the equals of the “*Apostles which knew even the thoughts of men, [and] understood all things, because the holy Spirit made a dwelling place in them...*”. Indeed, they would turn them into “perfect men: for *Adam* understood by that grace, and his eyes were opened so that he saw and knew all things that were to his understanding” — words that strangely echo the assertion in the *Corpus Hermeticum* that those who attain “mind” by immersing themselves in the Monad turn into “perfect human beings”, *homines perfecti*.⁵⁵⁴

Dee’s continuing efforts to attain the status of a “perfect man” by recovering the Adamic language strongly suggest that over the years he began to regard his attempts to reach this state through the Monas symbol as futile. It is also plain that the “mind of the adept”

⁵⁵² Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 351.

⁵⁵³ Dee, *A True & Faithful Relation*, p. 92.

⁵⁵⁴ Dee, *A True & Faithful Relation*, ‘Actio Tertia’, p. 26; Ficino, *Opera omnia*, p. 1842.

as described in *Monas hieroglyphica* involved capacities that Dee could never lay claim to. In the introduction he asserts that when “the fourth, great, and truly metaphysical, revolution” has been completed, the one who contemplates the symbol

will first go away into a metamorphosis and will afterwards very rarely be beheld by mortal eye. This is the true invisibility of the *magi* which has so often (and without sin) been spoken of, and which (as all future *magi* will own) has been granted to the theories of our monad.⁵⁵⁵

What this fourth, metaphysical “revolution” refers to is never explained; but in assigning to the ancient prophets and *magi* the power to make themselves invisible, Dee was drawing upon a common mythology. For instance, in the widely read magical text *Picatrix*, it is stated that the divinely inspired Hermes Trismegistus “knew how to hide himself from the people so that no one saw him, although he was with them”.⁵⁵⁶ The most well-known example, however, was the ancient prophet who figured so prominently in the angelic conversation, the biblical Enoch, who according to Scripture was “not to be found, because God had taken him”.⁵⁵⁷

In kabbalistic tradition, Enoch’s legendary disappearance was often associated with the notion of *binsica* or *mors osculi*, the “Death of the Kiss”, which might be what Dee was referring to. According to Pico della Mirandola, it was possible to separate the soul from the body in a form of trance and thereby communicate with God through the archangels, an operation that was accomplished by means of the intellectual part of the soul. This trancelike state, however, could also result in the “Death of the Kiss”, the complete abandonment of the body when the soul was united with the higher powers: “He who engages in kabbalah [*qui operatur in Cabala*] without extraneous admixture, shall die by *binsica*, if he sticks long enough to this work...”⁵⁵⁸ As Reichert has pointed out, the soul’s separation from

⁵⁵⁵ Dee, *Monas hieroglyphica*, pp. 134/135-136/137.

⁵⁵⁶ Al-Magriti [pseud.], *Picatrix*, IV.3, p. 322: “... er konnte sich vor den Menschen verbergen, so daß sie ihn nicht sahen, obwohl er bei ihnen war”.

⁵⁵⁷ Hebrews 11:5.

⁵⁵⁸ Pico della Mirandola, *Conclusiones*, ‘Conclusiones Cabalistiche numero LXXI’, nos. 11-13, p. 84: “Qui operatur in Cabala sine admixtione extranei, si diu erit in opere, morietur ex *binsica*...” For a discussion of *mors osculi*, see Wirszubski, *Pico della Mirandola’s Encounter with Jewish Mysticism*, pp. 153-160.

HORIZON AETERNITATIS.

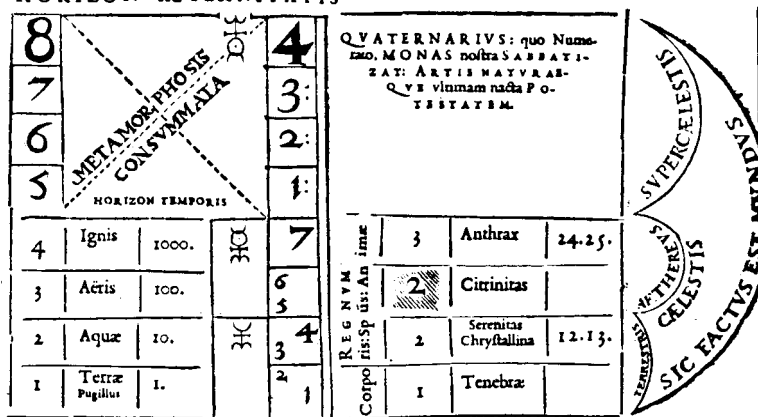


Fig. 30. Scheme showing the ascent of the adept's soul. From Dee, *Monas Hieroglyphica*, 1564, fol. 27'.

the body and its ascent towards the godhead did not necessarily lead to physical death, and the experience of *binsica* was attributed to a number of biblical characters — Moses, Ahron, Miriam and, of course, Enoch, who according to Scripture “was carried away to another life without passing through death...”⁵⁵⁹

The suggestion that Dee's reference to a “metamorphosis” of the exegete alludes to a form of Gnostic or kabbalistic ascent of the soul is strengthened by a passage appearing towards the end of the *Monas hieroglyphica*. Here Dee once again mentions four “supercelestial revolutions” which the symbol undergoes when it has been “correctly, wholly, and physically restored” to that “most united monad [*Monas unitissima*]” which “the *magi* deem oneness [*unitas*]...” From these “revolutions”, Dee adds, is brought forth “he whom, on account of his eminence, we have chosen to denote thus,” a phrase clearly referring to that “magnanimous” person who has attained the *mens adepta*.⁵⁶⁰ That this eminent individual is brought forth when the symbol has been completely restored to “oneness” might be interpreted as a reference to the unified, non-discursive “insight” that hieroglyphs were believed to yield — an insight attained, as Ficino wrote, when “multiple and shifting” thoughts gave way to a compre-

⁵⁵⁹ Reichert, “Pico della Mirandola and the Beginnings of Christian Kabbalah”, pp. 204-205; Hebrews 11:5.

⁵⁶⁰ Dee, *Monas hieroglyphica*, pp. 214/215-216/217, 116/117.

hension in which the whole of the represented entity was seen as “in one firm image”.⁵⁶¹

The metamorphic transformation of the exegete is also presented schematically in a diagram (fig. 30), which Dee refuses to comment upon, claiming that more conclusions can be drawn from these schemes “if considered in a more inward manner” than it is “proper to express in clear words”.⁵⁶² As indicated to the far right, the diagram covers the terrestrial region at the bottom of the scheme, the celestial region in the middle, and the supercelestial realm at the top. In the left half of the scheme, we can see the various arithmetical progressions derived from the symbol presented as ascending through the hierarchy of creation, ultimately leading to the “horizon of eternity”. We also find the four elements presented in a fashion echoing their appearance in the *arbor raritatis* (fig. 19), where the progression *terra-aqua-aer-ignis* corresponds to the philosopher’s path from the most basic knowledge to the status of a true adept. In this scheme, however, the gradual progression terminates at the “horizon of time”, which divides the celestial from the supercelestial realm, and is followed by a *metamorphosis consummata* producing a sudden leap to the “horizon of eternity” — the border separating the supercelestial realm from the supreme divinity. Appropriately, the final theorem of the text, which immediately follows the scheme, evokes John’s vision of God when he has passed through the gates of heaven.⁵⁶³

Thirty years after the publication of *Monas hieroglyphica*, Andreas Libavius issued an off-hand gibe at Dee’s notion of a “Jacob’s ladder” stretching from *natura* via the *horizon temporis* to the *horizon aeternitatis*, seemingly unaware of the fact that the terms were derived from Pico’s *Conclusiones*.⁵⁶⁴ This critique urged the touchy Dee to make preparations for a defence, which was unfortunately never written. In his *Letter Apologeticall*, however, he stated that the book would include a part entitled *De Horizonte Aeternitatis: liber Theologicus, Mathematicus, et Hierotechnicus* — “On the Horizon of Eternity: a book concerning the Theologian, Mathematician, and Hierotechni-

⁵⁶¹ Ficino, *Opera omnia*, p. 1768. This has been treated above, pp. 143-147.

⁵⁶² Dee, *Monas hieroglyphica*, pp. 214/215.

⁵⁶³ Dee, *Monas hieroglyphica*, pp. 216/217-218/219; Revelation 4:1-11.

⁵⁶⁴ Libavius, *Tractatus duo physici*, p. 41; Pico della Mirandola, *Conclusiones*, ‘Conclusiones Magicae, nos. 16-18, p. 79.

cian”.⁵⁶⁵ Whereas the meaning of the evocative neologism *hierotechnicus* is far from clear, it has a suggestive ring to it and reminds us that at the hub of Dee’s work lay the notion of symbolic exegesis as a *technique*, an art by means of which the human soul could ascend to the ultimate vision of God.

Alchemy and the transmutation of the human soul

A fascinating feature of the aforementioned scheme is the correspondence it posits between the soul’s ascent towards the “horizon of time” and the alchemical process. In the right half of the scheme, Dee gives references to the colour and consistency changes involved in the alchemical transmutation of matter. Next to them we find some of the numbers derived from the Monas symbol and associated with the alchemical process; and at the border of the supercelestial realm, where the process terminates, we find the numbers twenty-four and twenty-five, indicating the highest purity of gold (cf. fig. 25). The alchemical transformation of base metals into gold and the adept’s ascent towards the *metamorphosis consummata* are, in effect, presented as two parallel and corresponding processes.

Alchemy is clearly an important theme in *Monas hieroglyphica* and a majority of the theorems contain references to more or less well-known alchemical notions. Dee’s interest in the golden game began at an early stage of his career. In 1556 he compiled a list of fifty-five alchemical works, including well-known texts like Roger Bacon’s *Mirror of Alchemy*, the *Pretiosa margarita novella* of Petrus Bonus, as well as various tracts by Geber, Thomas Norton and Arnaldus de Villanova, all of which he claimed to have read in July of that year.⁵⁶⁶ That he also laboured to put his learning into practice is evident from the numerous remaining alchemical diaries in which the intricate procedures were recorded. In the middle of the seventeenth century he was still remembered in Mortlake for having “used an abundance of Eggeshells in his distillations”.⁵⁶⁷ In *Monas hierogly-*

⁵⁶⁵ Dee, *A Letter, containing a Most Brief Discourse Apologeticall*, p. 78; also reprinted in *A True & Faithful Relation*, sig. K2’.

⁵⁶⁶ Oxford, Corpus Christi College, MS 191; reprinted as Appendix 2 in Roberts and Watson (eds.), *John Dee’s Library Catalogue*, pp. 191–193.

⁵⁶⁷ See for instance Oxford, Bodleian Library, MS Rawlinson D.241, which records alchemical experiments performed between June and October 1581. The note on eggeshells can be found in Ashmole, *His autobiographical tracts*, vol. IV, p. 1300.

phica, however, the emphasis is not on the practical aspects of alchemy, but on the theoretical foundation as expressed through the Monas symbol. Again we find this graphical device employed as a “meta-language” epitomizing the fundamental laws behind the creation and, consequently, the principles governing alchemical processes.

Although alchemy is generally regarded as an occult science, it should be remembered that the notion that it was possible to transmute base metals into gold rested on the generally accepted theory of elements formulated by Aristotle. According to this theory, every substance was composed of some combination of the four primary elements (fire, air, water and earth), implying that any given substance could be transformed by changing the relative proportions of the elements. Since each of the primary elements was composed of prime matter informed by two of the four primary qualities (cold, dry, hot and wet), an artificial transmutation could be accomplished by manipulating the qualities of the substance. By changing the qualities of a particular substance, the relative proportions of the included elements could be modified and a different kind of substance generated.⁵⁶⁸

This fairly simple theory of alchemical transmutation was complicated by Aristotle’s remark in the *Meteorology* (III.6.378a) that minerals were produced by a “earthy smoke” consisting of small particles of earth, whereas metals were produced by a “watery vapour” consisting of small particles of water. In the ninth century the Arabic alchemist Jabir Ibn Hayyan proposed a theory in which “earthy smoke” and “watery vapour” were identified as “philosophical sulphur” and “philosophical mercury” respectively, a kind of ideal sulphur and mercury which should not be confused with the ordinary substances going by those names. According to Jabir’s theory, any metal could be produced artificially if these two principles were combined in correct proportions and exposed to the proper celestial influences.⁵⁶⁹ Jabir’s theory had considerable impact upon the Latin world and in the Middle Ages we find scholars like Albertus Magnus, Thomas Aquinas and Roger Bacon elaborating on the sulphur/mercury theory, as well as on the role of planetary influences in the natural generation of

⁵⁶⁸ For surveys of this theory, see Holmyard, *Alchemy*, pp. 21-24; and Coudert, *Alchemy*, pp. 18-21.

⁵⁶⁹ Holmyard, *Alchemy*, p. 75; Coudert, *Alchemy*, pp. 21.

metals. In *De mineralibus*, Albertus noted that when the qualities of the earth (dryness, coldness and heaviness) were more influential than the celestial rays, the process resulted in something “dark-coloured, heavy, and cold, as lead is”. When the influences of the celestial rays were stronger, however, the process brought forth a metal that was “very bright and indestructible...”⁵⁷⁰ The task of the alchemist was thus simply to imitate and speed up a perfectly natural process, to “strengthen the elemental and celestial powers in the material, according to the proportions of the mixture in the metal that they intend to produce”, as Albertus wrote: “And then nature itself performs the work, and not art, except as the instrument, aiding and hastening the process...”⁵⁷¹

But the sulphur/mercury theory also brought a new element into the theory of transmutation which subsequently would come to dominate the alchemical quest: the belief in the “Philosopher’s Stone”, an elixir having the power to transform imperfect metals into gold when “projected” or “cast” upon them. As Roger Bacon put it, the very aim of the alchemical science was to compound “a certaine medicine, which is called *Elixir*, the which when it is cast upon mettals or imperfect bodies, doth fully perfect them in the verie projection”.⁵⁷² Exactly how this elixir was to be compounded was a matter of intense dispute and speculation, although the importance of philosophical mercury and sulphur was always stressed in the plethora of alchemical writings produced from the Middle Ages to the nineteenth century.

In *Monas hieroglyphica*, Dee dwells at length upon the Monas symbol as a graphical representation epitomizing the principles of alchemical transmutation, often relying on well-known works like Thomas Norton’s *Ordinall of Alchemy* when describing how the initial matter is broken down into its component elements and recombined according to the proper methods.⁵⁷³ Throughout the text he also stresses the power of celestial influences over the alchemical process, maintaining that celestial astronomy “is like a parent and teacher” to alchemy and quoting the famous *Emerald Table* to support

⁵⁷⁰ Albertus Magnus, *Book of Minerals*, III.i.6, p. 168.

⁵⁷¹ Albertus Magnus, *Book of Minerals*, III.i.9, p. 178.

⁵⁷² Bacon, *The Mirrour of Alchimy*, p. 3.

⁵⁷³ For a lucid discussion of the alchemical aspect of *Monas hieroglyphica*, see Clulee, *John Dee’s Natural Philosophy*, pp. 96-111. See also Josten, “Introduction”, pp. 84-90, 99-111; and Calder, *John Dee Studied as an English Neoplatonist*, I, pp. 570-590.

his claim that “this whole magisterial work depends upon the Sun and the Moon...”⁵⁷⁴

The *Emerald Table*, or *Smaragdine Table* as it was also called, is a short text of unknown origin which in a handful of succinct sentences states the basic ideas of the alchemical philosophy.⁵⁷⁵ According to alchemical lore, the text had been engraved by Hermes Trismegistus on a tablet of emerald and in one of its frequently quoted lines it highlights the fundamental correspondence between heaven and earth: “That which is beneath is like that which is above: & that which is above is like that which is beneath...” This correspondence, legitimizing the notion that celestial bodies wielded influence over the alchemical work, also underlay the twofold significance of the alchemical and astrological characters, simultaneously representing celestial bodies and elemental substances. Much of Dee’s interpretation of the Monas symbol had its basis in this dual significance of the common alchemical characters, which enabled him to draw analogies between celestial and terrestrial phenomena. “Raising toward heaven our kabbalistic eyes” which have been illuminated by the contemplation of the alchemical mysteries hidden in the symbol, he stated, “we shall behold an anatomy precisely corresponding to that of our monad...”⁵⁷⁶

That alchemy has such a prominent role in *Monas hieroglyphica* is, however, largely due to the religious significance of this art. A typical early modern account of alchemy is Thomas Tymme’s introduction to Joseph du Chesne’s *The Practise of Chymicall, and Hermeticall Physice* (1605). According to Tymme, alchemy had “concurrency and antiquitie with *Theologie*”, for this was not merely the art of transmuting metals, but was also “God’s created handmaid, to conceive and bring forth his Creatures”. Claiming that the alchemical philosophy is clearly expressed both “in the volume of nature” and in the sacred Scripture, Tymme interprets the biblical account of Creation in terms of an alchemical process, a “Diuine Halchymie” bringing forth the cosmos through a process of “Extraction, Separation,

⁵⁷⁴ Dee, *Monas hieroglyphica*, pp. 174/175, 164/165-166/167.

⁵⁷⁵ The text is reprinted and discussed in Holmyard, *Alchemy*, pp. 97-100. I quote from the sixteenth century English version in Bacon, *The Mirrour of Alchimy*, p. 16.

⁵⁷⁶ Dee, *Monas hieroglyphica*, pp. 174/175. On Dee’s cosmology, see Zetterberg, “Hermetic Geocentricity: John Dee’s Celestial Egg”.

Sublimation, and Conjunction” of the “indigested Chaos or masse created before by God”.⁵⁷⁷

An extraordinary example of how the biblical Genesis provided the conceptual framework used to describe and interpret the alchemical processes can be found in a little-known work which was of great importance to Dee, the *Voarchadumia contra alchimiam* (1530) of Johannes Pantheus. Dee’s copy of this text, according to a note acquired in 1559, is so extensively annotated that it has been interleaved to make room for his comments; and on one of the inserted folios we find Dee summarizing a set of analogies between Genesis and the alchemical work. In this scheme the alchemist himself, the *artifex*, is assigned a role analogous to God the Creator: as God created the heavens and the earth, so the alchemist brings forth and separates a prime matter into thin and dense elements through a process “we call sublimation”; as God created Adam out of red earth, so the alchemist produces gold out of the refined alchemical matter; and as God used Adam to create Eve, the corrupt *viragine*, so the alchemist uses his gold to make a *Tinctura* which can be purified and used to multiply the off-spring of the creative act.⁵⁷⁸

The importance of Pantheus’ work for Dee’s notions of alchemy is evident from the numerous appearances of the Monas symbol in his annotations to the work. In the introduction to *Monas hieroglyphica* he also explicitly refers to the “*voarchadumicus*” as a scholar who would benefit from contemplating his symbol.⁵⁷⁹ As Nicholas Clulee has suggested, Dee’s interest in the *Voarchadumia* was probably fuelled by the fact that this work was one of the first to integrate kabbalah with alchemy.⁵⁸⁰ In the text Pantheus develops a discipline called the “kabbalah of metals”, in which alchemical substances and processes are ascribed numerical values and associated with ancient alphabets in order to be treated according to kabbalistic techniques. A remarkable example of how this “kabbalah of metals” could be employed is found on one of Dee’s inserted folios. Dee begins by assign-

⁵⁷⁷ Joseph du Chesne, *The Practise of Chymicall ... Physice*, sigs. A3^r, A4^r. For an illustrative example of how Genesis could be interpreted in alchemical terms, see also Robert Fludd’s *Mosaicall Philosophy*.

⁵⁷⁸ Pantheus, *Voarchadumia* (London, British Library, shelfmark C.120.b.4.(2)), folio inserted between fols. 48^v and 49^r.

⁵⁷⁹ Dee, *Monas hieroglyphica*, pp. 136/137.

⁵⁸⁰ For Clulee’s discussion of *Voarchadumia*, see *John Dee’s Natural Philosophy*, pp. 101-103.

ing a particular number to every letter according to its position in the alphabet (A=1, B=2 and so forth), and then calculates the numerical value of the words “NUTU DEI”, “by the command of God”, by adding the respective values of the individual letters. Having arrived at a total of 90 by this conventional form of kabbalistic *gematria*, Dee proceeds to add the numerical values given by Pantheus for the different stages in the alchemical process (*Putrefactio*, *Generatio*, *Alteratio*), again arriving at a total of 90. The calculations are repeated with the Greek and Hebrew expressions for the phrase “by the command of God”, which, again, are found to correspond to the alchemical processes.⁵⁸¹ Thus, by applying kabbalistic and numerological techniques to the alchemical *opus*, Dee substantiated the underlying correspondence between the alchemical transmutation of metals and the divine act of creation as it was reflected in the three primary languages of mankind.

Pantheus’ emphasis on the direct intervention of a divine power as crucial to the alchemical work is echoed almost verbatim in *Monas hieroglyphica* when Dee points out that the alchemist’s use of fire together with the command of God — NUTUS DEI — brings forth “that most famous Mercury of the philosophers”, which is also “the Microcosm, and Adam”.⁵⁸² This notion was far from uncommon, and in Dee’s copy of Petrus Bonus’ *Pretiosa margarita novella* the words “*Nutu Dei*” reappear in the margin next to a passage stating that only the divinity has the power to animate the elements.⁵⁸³

Dee’s interest in the *Pretiosa margarita novella* — “The New Pearl of Great Price” — is significant since few works allow the religious dimension of alchemy to come to the fore as clearly as this. Here the alchemical work is not only described as analogous to the

⁵⁸¹ Pantheus, *Voarchadumia* (London, British Library, shelfmark C.120.b.4.(2)), folio inserted between fols. 40^v and 41^r.

⁵⁸² Dee, *Monas hieroglyphica*, pp. 164/165. Cf. Pantheus, *Voarchadumia* (London, British Library, shelfmark C.120.b.4.(2)), fol. 21^v, where fire and the command of God are said to bring forth the “*novus Adam*”; Dee’s emphasis.

⁵⁸³ Petrus Bonus, *Introductio in divinam chemiae artem* (London, Royal College of Physicians, shelfmark D 107/7, 7c), p. 101. This copy was acquired considerably later than 1564, when *Monas hieroglyphica* was written, but the work is included in a list of alchemical works Dee claims to have read in 1556. See Roberts and Watson (eds.), *John Dee’s Library Catalogue*, Appendix 2, no. 6, p. 191. Waite’s English translation of this work is a heavily abridged and occasionally self-willed rendition and should be used with caution.

divine act of creation, but also situated in a theological context which gives it a much wider meaning and purpose than the simple transmutation of metals. Ultimately it presents alchemy as an art aimed at the redemption of the human soul. In a chapter that Dee has annotated extensively and provided with the heading “Mysterium Divinae operationis in nostro Lapide”, Petrus Bonus defines alchemy as an art which is partly natural and partly divine. Whereas the basic processes of alchemical transmutation occur within the framework of nature, the final creation of gold requires that secret and divine “stone” which is a gift of God. This “stone” — which cannot be grasped by the senses but only by the divinely inspired intellect — is the “philosophic Word”, *verbum philosophicum*, by means of which the ancient sages knew of the coming of the end of the world and the resurrection of the dead. Indeed, according to Bonus, Plato had written a work on alchemy long before the Christian era which included the five opening verses of the Gospel of St John — “In the beginning was the Word, and the Word was with God, and the Word was God...”⁵⁸⁴

The identification of the alchemical *lapis* with the Word was common in early modern alchemy, and Bonus’ account is interesting primarily because of his unusual lucidity and explicitness.⁵⁸⁵ By invoking this analogy, Bonus could present the basic features of the alchemical *opus* and the religious progress of the believer as two corresponding and mutually dependent processes. Alchemy was a quest for spiritual enlightenment as much as it was a quest for gold, an art aimed at the purification of the alchemist’s soul as much as the purification of metals.⁵⁸⁶

Underlying this dual nature of the alchemical work was the notion of the divine Word as reflected both in the human soul and in the principle governing all natural processes. This notion made it possible to exploit the analogous relationship between man as a fallen or deformed *imago Dei*, and the base metals as imperfect elements, and thereby to conceptualize the alchemical perfection of metals and

⁵⁸⁴ Petrus Bonus, *Introductio in divinam chemiae artem* (London, Royal College of Physicians, shelfmark D 107/7, 7c), pp. 99-102.

⁵⁸⁵ C. G. Jung presents an abundance of material concerning the *lapis*-Christ parallel in his *Psychology and Alchemy*, especially pp. 345-431. See also B. J. T. Dobbs’ excellent essay *Alchemical Death and Resurrection: The Significance of Alchemy in the Age of Newton*.

⁵⁸⁶ For a lucid account of this, see Crisciani, “The Conception of Alchemy as Expressed in the *Pretiosa Margarita Novella* of Petrus Bonus of Ferrara.”

the believer's ascent to God in terms of each other — not only as two similar but distinct processes, but as two corresponding and mutually dependant transformations. Just as the alchemical *lapis* raised the elements to their most perfect state of being, it raised the human soul to the clarity it was deprived of at the Fall. Agrippa, erroneously referring to Geber's *Summa perfectionis*, remarked that nobody can attain perfection in the art of alchemy unless he “knows the principles of it in himself”. The more a man comes to know himself, however, the more he understands of this art, until he “ascend[s] to so great a perfection, that he is made the son of God, and is transformed into that image which is God, and is united with him...”⁵⁸⁷

In presenting the alchemical work and the adept's ascent to the horizon of eternity as two parallel transformations, Dee was clearly expressing a similar conception of alchemy. In the introduction he also refers to a now lost treatise he had written on the subject of “adeptship”, which, significantly, was the fruit of “twenty years' hard work in the Hermetic science” — that is, alchemy. Everything he had said in this treatise, however, was included in *Monas hieroglyphica* in a much clearer form, he claimed, adding that the text could “in twofold way, conduct [the reader] into itself, namely [by teaching him] to assimilate the worthy work itself, and to imitate its worthiness”.⁵⁸⁸ That is, by studying the Monas symbol, the alchemist would not only learn how to sublimate matter into gold, but himself undergo a similar process of perfection and ultimately attain the mind of the adept.

⁵⁸⁷ Agrippa, *Three Books of Occult Philosophy*, III.36, p. 580. As Martin Plessner has shown, the passage is not from the Latin Geber, but from an authentic work of Jabir ibn Hayyan. See Plessner, “Geber and Jabir ibn Hayyan”, especially pp. 115-117.

⁵⁸⁸ Dee, *Monas hieroglyphica*, pp. 136/137-138/139.

Trithemius and magical theology

Though Dee relied on a wide variety of sources in *Monas hieroglyphica*, there is one author that deserves particular attention: the Benedictine abbot Johannes Trithemius (1462-1516), close friend of both Agrippa and Reuchlin, and notorious for his writings on occult philosophy. In Trithemius' works we find a fusion of Pythagorean number mysticism, kabbalah and alchemy remarkably similar to Dee's *Monas hieroglyphica*, as well as a strong emphasis on the intimate connection between the practical manipulation of natural forces and the spiritual transformation of the soul.⁵⁸⁹

Dee's acquaintance with the ideas of Trithemius can be firmly dated to 1562, two years before the publication of *Monas hieroglyphica*. In January this year, he acquired the *De usu et mysteriis notarum liber* (1550) of Jacques Gohory (d. 1576), a work primarily devoted to the history and properties of letters and writing.⁵⁹⁰ Relying on Lull, Pico, Agrippa, Ficino, as well as a wealth of ancient authorities, Gohory gives a comprehensive account of writing and letters in Renaissance occultism, knowledgeably discussing such subjects as Christian kabbalah, magic and hieroglyphs. Like many of the authors he cites, Gohory also stresses the close kinship between letters and numbers. As he notes in a paragraph underlined by Dee, numbers are not only used in calculations, but constitute a form of "true signs" (*verae notae*), and for this reason they were used by Pythagoras and other ancient philosophers as the "most noble semblances [*adumbrationes*] of things" — a belief, he remarked, that was shared by Trithemius, who professed to have hidden "all the mysteries of magic, natural as well as celestial, under the innocence of numbers".⁵⁹¹

⁵⁸⁹ On the occult philosophy of Trithemius, see Noel L. Brann's recent study *Trithemius and Magical Theology: A Chapter in the Controversy over Occult Studies in Early Modern Europe*. Trithemius' influence on Dee has been emphasized by Clulee, *John Dee's Natural Philosophy*, especially, pp. 103-105, 112, 114.

⁵⁹⁰ Dee's copy, signed "Johannes Dee 1562 Antwerpia Januarij Die 20", is now Cambridge University Library, shelfmark LE 19.8². For a brief discussion of Gohory's works, see Walker, *Spiritual and Demonic Magic from Ficino to Campanella*, pp. 96-106.

⁵⁹¹ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. H.ij.v: "*Numeri porro cum extra calculum trahuntur, verae sunt notae, quibus Pythagoras alique sanctiores philosophi ad rerum maximarum adumbrationem usi sunt perlibenter. Quos Tritemius ille in alphabetorum*

The numerological symbolism of Trithemius is developed in two extracts from his letters which Gohory reproduces in his text.⁵⁹² In these letters, Trithemius presents a mathematical symbolism closely akin to Dee's exposition in *Monas hieroglyphica*, describing how the ascent from unity to ternary, quaternary, and denary, and the descent back into unity constitutes the basic law of all natural and supernatural processes. Like Dee, Trithemius presents this symbolism as transparent to the initiated reader, but makes clear that it transcends rational thought and can only be truly comprehended by a divinely illuminated mind — "Indeed, he is not able to understand this, who has not, by a divine gift, received the incomparable light of understanding..."⁵⁹³ To be accomplished in the manipulation of natural and supernatural forces, Trithemius writes, one has to learn the art "by rectification from the ternary, through the divided binary, to unity". Moreover, it is necessary to know "the division of the universe" and how everything within it can be understood as a progression "from one to the quaternary resting in the ternary" — "All of which is very difficult to know", he adds, but "is the root and foundation of all wonderful effects in natural as well as supernatural magic".⁵⁹⁴

Polygraphiae infinitate imitatum sese profitetur, magiaeque *mysteria omnia tum naturalis tum caelestis sub numerorum simplicitate texisse.*" (Dee's emphasis). See also sig. D.iiij^v.

⁵⁹² Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sigs. H.iii^r-I.iii^r. The extracts are from Trithemius' letters to Joachim of Brandenburg 26 June 1503, and to Johannes of Westerbürg 10 May 1503. Both of these were first published in their entirety in the 1567 edition of *De septem secundeis* (pp. 100-116 and 81-100 respectively) and are neither included in the 1536 edition of *Epistolae familiares*, nor the 1545 edition of *De septem secundeis*, listed in Dee's library catalogue. Cf. the partially incorrect information in Clulee, *John Dee's Natural Philosophy*, p. 269n99. The copy at the Royal College of Physicians (shelfmark D146/2, 21c) of *De septem secundeis*, ed. 1567, is probably Dee's but contains no annotations and only a few underlinings. The letters reprinted in Gohory's text have been discussed in Josten, "Introduction", pp. 108-110; and Clulee, *John Dee's Natural Philosophy*, especially pp. 104-105, 112.

⁵⁹³ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. I.ii^j: "Haec enim intelligere non potest, nisi divino munere lumen singulare acceperit intelligendi..."

⁵⁹⁴ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. H.iii^r: "Imprimis (inquit) necessarium est homini *magiae* studioso, ut natura sit ad eam non solum propensus, sed etiam dispositus, aut à magistro disponatur per rectificationem à ternario in unitatem per binarium divisum:

The importance of Trithemius' account to Dee's conceptions is reflected in his borrowing of a phrase from Trithemius — *quaternarius in ternarius conquiescens*, "the quaternary resting in the ternary" — as a motto to his "Hieroglyphic Monad" when publishing a new edition of his *Propaedeumata aphoristica* in 1568. In Gohory's text he also added a drawing of his symbol to this particular passage, showing how the "ternary" consisting of mercury, salt and sulphur is "rectified", first into a divided binary, and finally into the unity represented by his Monas symbol. The close affinity between Trithemius' and Dee's alchemical imagery is also evident in a passage in which Trithemius correlates the monad and quaternary with the ascent of the element of earth, first to the region of celestial water, then to that of fire, which is the region of the angels, and finally to the "*unum simplex, id est anima mundi*".⁵⁹⁵ In *Monas hieroglyphica* Dee echoes this account when pointing out that his Monas symbol will teach the adept how it is possible to "raise the element of earth through [the region of] water into [that of] fire", a process which is also displayed graphically in his scheme showing the ascent through the hierarchy of elements to the "Horizon of Time" (fig. 30).⁵⁹⁶

Dee's belief that this "ascent" applied to the alchemist's soul as well as to the alchemical matter is another theme that runs like an unbroken thread through Trithemius' writings. Like Dee, Trithemius presumed that every external effect produced by occult means was accompanied by a corresponding internal effect within the soul of the operator. After explaining how the earth can be raised to the "simple unity", he added: "And I say that whoever is sublimated by a knowl-

Clarius declarare tibi literis nec possum nec velim. Deinde necesse est ut universi divisionem sciat, & totius tam inferioris quàm superioris ab uno usque ad quaternarium in ternario quiescentem, noveritque ordinem ascensus & descensus, gradum, numerum, fluxum, refluxum, *esse & non esse*, unum & tria: Quod scire difficilimum est, & omnium mirandorum effectuum radix et fundamentum in magia tam naturali quàm supernaturali." (Dee's emphasis.)

⁵⁹⁵ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. I^r: "Terra, elementum naturae purum & simplex est, quia compositum ascensu sit multiplex & impurum, reducibile tamen per ignem & amorem, in aquam scilicet caelestem, ab illa in ignem, id est angelos. Ab illo in unum simplex, id est *anima mundi*." (Dee's emphasis.)

⁵⁹⁶ Dee, *Monas hieroglyphica*, pp. 132/133.

edge of this pure simplicity and simple purity will be accomplished in every natural and occult science.”⁵⁹⁷

To what extent Trithemius’ notion of the philosopher’s “sublimation” coincided with Dee’s conception of *mens adepta* is difficult to ascertain. According to Trithemius, the “simple unity” to which the elements and the operator’s soul is raised is the World Soul, the *anima mundi*, which he describes as being not God, but an *imago* of the human mind, neither alive nor dead, and capable of causing marvels.⁵⁹⁸ The World Soul was a central element in Neoplatonic cosmology, exhaustively discussed in the *Enneads* of Plotinus. In the unbroken hierarchy which constituted the universe, the World Soul was the second in a series of hypostases emanating from the godhead, and the immediate link between the divine and terrestrial realms. According to Plotinus’ philosophy, the divine Mind generated the principles of all created things in the World Soul, which, in turn, generated the corporeal forms in unformed matter by infusing divine power into the terrestrial realm. Everywhere present, the *anima mundi* made the entire cosmos an active, living being, to which the human soul was intimately connected by participating in, and mirroring, the universal World Soul. The *anima mundi* thus functioned as a link between man and God, as well as between God and the world: a means from which divine powers could be drawn down to earth, as well as a means by which man could ascend to his Creator.

It would not, therefore, be inconsistent if the level denoted as the “Horizon of Time” in Dee’s scheme (fig. 30) refers to the World Soul, which when reached produces a sudden leap or “metamorphosis” to the “Horizon of Eternity”, the ultimate godhead. Although Dee does not refer to the *anima mundi* in *Monas hieroglyphica*, it is clear from his marginalia that he viewed it as intimately connected to his notion of *mens adepta*. In his copy of Plotinus’ *Enneads*, we find a note on “mens adepta” next to one of Ficino’s commentaries, describing how the *anima mundi* links everything within the universe, including the human soul, to the divine Mind. Just as the radius of a

⁵⁹⁷ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. I^r: “Et dico quicumque huius purae simplicitatis & simplicis puritatis notitia sublimatus est, in omni scientia naturali & occulta consummatus erit.”

⁵⁹⁸ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. I^r: “Nec est illud deus quem colimus, *creatura* est animi *hominis* imago, nec *viva* nec *mortua*, mirabilium tamen effectrix.” (Dee’s emphasis.)

circle touches the circumference while remaining attached to the centre, and the rays of light strike the earth, yet never lose touch with the sun, the divine Intellect is everywhere present, making the cosmos a single, living being. Hence, writes Ficino, it is possible for God to hear our prayers and for man to converse with Him. Moreover, it explains why some men possess prophetic gifts and the ability to produce marvels at a distance, as well as the power to affect others with their thoughts and feelings.⁵⁹⁹

Like Dee, Trithemius viewed practical and subjective magic as two sides of the same coin. Just as the soul's ascent towards God gives man power to manipulate nature, the practice of magic itself brings forth a transformation of the soul. Licit natural magic, Trithemius asserted in his letter to Joachim of Brandenburg, "not only performs visible effects, but also marvellously illuminates the intellect of the man skilled in it with knowledge of the Deity and furnishes invisible fruits to the soul".⁶⁰⁰ As Noel L. Brann has pointed out, the common denominator of inward and outward magical transformation was the

⁵⁹⁹ Plotinus, *De rebus philosophicis libri LIIII. in enneades sex distributi* (London, Royal College of Physicians, shelfmark D 124/5, 17c), fol. 1^r (new pagination): "Est autem ipse simpliciter intellectus ubique totus: sunt et in eo non solum per ideas, verum etiam per proprias (ut ita dixerim) existentias intellectuales animae, secundum intellectualem sibi propriam facultatem, etiam dum sunt in corpore. Quemadmodum lineae a centro ad circumferentiam, et radij non reliquentes solem interim terrena contingunt: atque sicut lineae radijque extra prominentes inter se loco distant, in ipso tamen principio sunt loco simul: Sic animae apud nos secundum corpora situ distantes, ibidem sunt omnes secundum intellectum in mente divina: secundum intellectus inquam suos, illic inter se differentes, sicut et linearum radiorumque termini inter se sunt alij, etiam ubi centrum solemque contingunt. Hinc effici vult Plotinus, ut intellectus prophetae hominisque abstracti, et si in Oriente tantum videatur esse, prospiciat tamen quae fiunt in Occidente, atque ex uno quodam loco miraculosum aliquid agat in alio, et cogitatione affectioneque sua clam moveat alios: quia videlicet intellectus omnes in se invicem, et ubique sunt: quandoquidem sunt semper in simplici mente divina, tota semper ubique praesente. Qua quidem praesentia et Deus percipiat preces, et homines cum Deo familiarissime colloquantur. Esse quoque vult intellectus eiusmodi familiares hominum daemones, assiduosque duces singulis singulos attributos." (Ficino's commentary on Ennead IV; Dee's emphasis.)

⁶⁰⁰ This passage is not included in Gohory's text, but can be found in Trithemius, *De septem secundeis*, ed. 1567, p. 105: "Magia siquidem naturalis non solum effectus operatur visibiles, sed etiam intellectum ipsius hominis in ea periti mirabiliter in cognitione diuinitatis illuminat, inuisibilesque fructus animae praestat." Cf. Brann, *Trithemius and Magical Theology*, p. 107.

notion of “purification” (*purgatio*), expressed in the external world as the purification of material substances and in the internal as the purification of the philosopher’s soul.⁶⁰¹ Trithemius’ philosophy was a fusion of magical notions and Christian religious doctrines, a form of “magical theology” in which magic served as a means to attain a *reformatio magica* of the philosopher, “entailing a passage of the soul, on the model of alchemy, through a series of purgative stages to a state of godlike sanctity and ‘enlightenment’”.⁶⁰²

Brann’s characterization of Trithemius’ occult philosophy as aimed at a *reformatio magica* — an expression that applies equally well to Dee’s conception of philosophy — pertinently captures its dependence on orthodox Christian tradition. Although the revival of Hermetic, Neoplatonic and Jewish mysticism was essential to the formation of early modern occult thought, the Christian doctrine of man’s personal reformation remained central and provided the grounds on which these sources could be accommodated to a Christian framework. Writing to Libanius Gallus in August 1505, Trithemius beseeched his friend to favour him with prayers

so that my perverse mind might be reformed [*ut mens reformetur inversa*] and be made one in the love and knowledge of the Highest Good [*summum bonum*], the Father, Son and the Holy Spirit; [and that], having been overtaken by the grace of its origin, from which it fell into multiplicity, it might itself be reformed to unity.⁶⁰³

Echoing the common belief that man’s Fall had plunged his soul into a state of “multiplicity”, Trithemius’ words were a plea to be raised to Adam’s original perfection, to that state, as Augustine wrote in *De trinitate*, when our mind comprehends everything “in one eternal and unchangeable and ineffable vision” — *una aeterna et immutabili atque ineffabili visione*.⁶⁰⁴ In similar words Pico della Mirandola

⁶⁰¹ Brann, *Trithemius and Magical Theology*, pp. 114–115.

⁶⁰² Brann, *Trithemius and Magical Theology*, p. 116.

⁶⁰³ Trithemius, *Epistola familiares*, p. 100: “Ora mecum, precor ad Deum, ut quod volumus, maximeque velle debemus, nobis ille concedat. Scribo sapienti & Deo dilecto sacerdoti, qui nos iuvare potest precibus & votis, ut mens reformetur inversa, sit unum in amore & cognitione unius summi boni, Patris, & Filii, & Spiritus sancti, gratiam assecuta principii, a quo multitudine labitur, unitate ad ipsum reformatur.”

⁶⁰⁴ Augustine, *On the Trinity*, XV.7, p. 841.

described natural philosophy as the first step on Jacob's ladder, ultimately leading us to a state of "theological happiness" — a state when our minds "do not merely accord in one intellect that is above every intellect but in some inexplicable fashion become absolutely one".⁶⁰⁵

It should now be clear that Dee's "Hieroglyphic Monad" was an attempt to conceive a symbolic language which, by epitomizing the numerical laws of God's creative Word, would lead the exegete to this blessed state of comprehension. But like Trithemius, Dee also considered this spiritual ascent of the soul as providing the key to unequalled powers over nature. By comprehending the numerical laws underlying creation, man would become a magus, capable of mastering the powers of nature and performing wonderful miracles. As Trithemius wrote in a passage underlined by Dee, the art of magic was impossible to master without knowledge of the numerical progression from unity to binary, ternary and quaternary — "neither is the magician able, without crime, to impart power to images, nor the alchemist to imitate nature, nor [is any man able] to command spirits. Nor is a prophet able to predict the future, and no inquisitive person [able] to understand the laws of experiments."⁶⁰⁶

Dee's views — and practice — of magic constitute one of the most fascinating themes of his works and career. Intimately tied to his views of language, history and mysticism, these conceptions were also of greater philosophical complexity than earlier research suggests. In the last part of this study we shall see how Dee's conceptions of magic, derived from a wide variety of sources and philosophical traditions, were an integral part of his strivings towards a complete restitution of the ancient wisdom.

⁶⁰⁵ Pico della Mirandola, *On the Dignity of Man*, pp. 10-11.

⁶⁰⁶ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. I.ii^v: "...nec magus *imaginibus* virtutem dare sine scelere potest, nec *chimista naturam* imitari, nec spiritus *compellere*. Homo nec *futura praedicere* vates, nec quisquam curiosius experimentorum capere rationem. Omnis itaque naturae consistens limitibus actio mirandorum ab vnitate per binarium in ternarium descendit, nec priusquam à quaternario per graduum ordinem in simplicitatem consurgit." (Dee's emphasis.)

tunc omne corpus glorificatum, ad incorruptibilitatem trans-
 latum, & luciditatem, & subtilitatem fere incredibilem, &
 penetrabit omne solidum: quia eius natura tunc erit natura
 spiritus, sicut et corporis: reliqua autem damnanda resurgēt,
 ut illa quod ad perpetuitatem & incorruptibilitatē, passibi-
 lia tamen erunt, & cum tenebris & obscuritatibus & opposi-
 tione illis. Vnde Bonellus in Turba philosophorum: Omnia vi-
 uunt & moriuntur, Natu Dei. Et est natura, cui cum humi-
 ditas vel combustio accidit, & cum ea dimittitur per noctes;
 tunc similis videtur mortuo, & tūc res illa igne indiget, quo-
 usque illius corporis spiritus extrahatur, & per noctes dimit-
 titur, ut homo in tumulo suo, et pulvis fiat. Iis peractis, Deus
 reddet ei animam suam & spiritum, ac infirmitate ablata,
 confortatur illa res, & post coruscationem emendatur, quem
 admodum homo post resurrectionem fortior sit & iunior, quā
 fuerat in mundo hoc. Et dicit Milnescidus: Creator anima-
 rum, cum has mortificat creaturas, postquam sequestrat ani-
 mas a corporibus, reddet eis animas suas, ut iudicet & remun-
 neret. Similiter oportet nos hys adulatione vti animalibus,
 &c. Et Hermes in primo: Porro nisi iudicij diem timeremus, hu-
 ius scientie nihil patefacerem, nec ulli prophetarem, &c.
 Quia igitur viderunt diem nouissimam in hac arte, scilicet,
 germinatione, & natiuitate, huius lapidis miraculosam po-
 tuit, quā rationalem: quia sit coniunctio anime beatifican-
 de cum suo primo corpore, mediante spiritu, & eorum per di-
 uinum in æternum gloriosa: Ideo ex hoc iudicauerunt diem iu-
 dicy domini nouissimam huius seculi debere venire, quæ erit
 supra naturam et miraculosa. Ideo Pythagoras in Turba phi-
 losophorum dicit: Intelligite omnes sapientes, quod omne quod
 ex una essentia Deus creauit, non moritur, nisi in die iudi-
 cy. Similiter per hanc artem cognouerunt & iudicauerunt
 antiqui philosophi huius artis, virginem debere concipere &
 parere: quia apud eos hic lapis concipit, & impregnatur a se-
 ipso, & parit seipsum: unde est conceptio similis conceptioni

Natu Dei

Corruscatio

Germinatio et
 natiuitas La-
 pidis, quod sit
 ipsum opus.

si vero dicit
 vbi.

virginis, que absque viro concipit, quod esse non potest nisi
miraculosè, scilicet per diuinam gratiam: & in partu istius
lapidis, fit partus similis partui virginis: quia post partum
manet virgo, ut prius ante conceptum, quod etiam esse nō po-
test, nisi diuino miraculo mediante. Quia igitur viderunt
 conceptionem, imprægnationem, & partum, & nutritionem
istius lapidis ita miraculosam, iudicauerunt mulierem vir-
ginem debere concipere absque viro, & imprægnari, & pare-
re miraculosè, & manere virginem ut prius. Vnde Alphi-
 dius: Hic lapis in vijs proiectus est, in nubibus exaltatus, in
aere habitat, in flumine pascitur, & in cacuminibus montium
quiescit: cuius mater virgo est, cuius pater fulgur nescit.
 DEUS Homo
 Adhuc etiam nouerunt, quod Deus fieri debebat homo: quia
in die nouissima huius artis, in qua est operis completum,
generans & generatum sunt omnino vnum, & senex, &
puer, & pater, & filius, sunt omnino vnum: ita quod omnia
vetera sunt noua. Vnde quia hanc rem sic miraculosam vi-
 derunt, iudicauerunt etiam, creatorem cum creatura fieri
debere vnum. Quia igitur creatori nulla creatura vnti po-
 test, nisi homo solus, cum sit ad imaginem & similitudinem
 creatoris factus ratione anime intellectus, iudicauerunt,
 Deum cum homine fieri debere vnum. Et hoc factum fuit in
 Christo Iesu, & virgine matre eius. Vnde Balgus in Turba
 philosophorum dicit. O quam miræ nature, que animam se-
nis in iuuenile corpus transformauerunt, ac pater filius fa-
ctus est. Bene. licet igitur sit Deus creator optimus, &c. Si-
 militer Plato scribens in Alchemicis, scripsit Euangelium,
 quod post eum per tempora longa valde scripsit Ioannes Eua-
 gelista & compleuit. Scripsit enim Plato, In principio erat
verbum, continuò vsque ad locum illum fuit homo missus à
Deo, &c. Sicut recitat Beatus Augustinus, in summa Confes-
 sionum: & ostendit Deus hoc exemplum miraculosum philo-
 sopheris in hoc lapide, ut ostenderet potentiam suam, ut ipsi si-
 rent, & cognoscerent eum, opera que supra naturam consi-
 stunt.

Plate 2. Dee's marginalia in Petrus Bonus, *Margarita Pretiosa novella* (London, Royal College of Physicians, shelfmark D 107/3, 7c), p. 102.

III. The Language of Magic

*“Ô puyssant, and right Noble King, BNASPOL, And by what Name els soeuer, thou art called, or mayst truely and duely be called...”*⁶⁰⁷

Seated in front of a small, square table of hardwood, covered with characters as ancient as mankind itself, Dee raised his humble prayers to the angelic messengers. Over the table-top he had carefully painted a pentagram and letters not beheld by human eyes since Adam wandered in the Garden of Eden — a heavenly alphabet written in yellow paint “made of perfect oyle, vsed in the church”.⁶⁰⁸

“...In the Name of the King of Kings, the Lord of Hoasts, the Almighty GOD, Creator of Heaven and earth, and of all things visible, and Invisible: Ô right Noble King BNASPOL Come, Now, and Appeare...”

With painstaking care he had crafted the round seals of wax according to the angels’ instructions, each of them covered with intricate geometrical patterns and names of God and His angels. Four small seals were placed in small wooden boxes under each table leg, and on the table-top, a larger seal, the *Sigillum Emeth* — the seal of God (fig. 31).⁶⁰⁹ “Mark this”, the angel Uriel had urged; “All Spirits enhabling, within the Earth ... are subiect to the Powre herof (pointing to his seale) with this you shall Govern: wyth this you shall unlök: with this, (in his name who rayneth) you shall discover her entrayls”.⁶¹⁰

⁶⁰⁷ This invocation, headed “BONORUM ANGELORUM HEPTARCHIORUM, Pice, Deuotaque Invitationes” is taken from British Library, MS Sloane 3191, p. 27.

⁶⁰⁸ The description of the ritual paraphernalia is extracted from British Library, MS Sloane 3191, pp. 8-10, a chapter headed “Some Remembrances for the furniture and Circumstances necessary in the Exerise Heptarchicall”. For a description of the table, see also Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 21-23.

⁶⁰⁹ The original drawing of the “Sigillum Emeth” can be found in MS Sloane 3188, fol. 30^r. The finished wax seal and two of the smaller ones are still existent and are now part of the collections of the British Museum.

⁶¹⁰ British Library, MS Sloane 3191, p. 9.

And finally, on top of the seal and the silk cloth: the crystal globe, by divine grace delivered to him by the archangel Michael at dusk on the 28th of April 1582:

E K[elley] looked toward my west wyndow, and saw there first vpon the matts by my bokes a thing, (to his thinking) as big as an egg: bright, clere, and glorious: and *an angel* of the heyth of a little child *holding vp the same thing* in his hand toward me: and that angel had a *fyrey sword* in his hand etc. ... I went toward the place, which E K pointed to: and tyll I cam within two fote of it, I saw nothing: and then I saw like a shaddow, on the grownd or matts hard by my bokes vnder the west window. The shaddow was rowndysh and less then the palm of my hand. I put my hand down vpon it, and I felt a thing cold and hard: which (taking vp I) perceyued to be the stone...⁶¹²

Mounted in a gilded stand and placed on top of the seal, this vitreous crystal would let him “Beholde, (privately to thy self)”, the angel Uriel said, “the state of gods people, throwgh the whole Earth”.⁶¹³

“...*COME, Ô right Noble King BNASPOL, I saye COME. Amen.*”

No feature of Dee’s angelic conversations is so glaring to a contemporary reader as the overtly religious character of his rituals. Despite their otherworldly overtones and seemingly unorthodox aims, the ritualistic form of the angelic conversations is strongly suggestive of orthodox Christian liturgy. This feature was common to a wide range of magical practices that flourished in the medieval and early modern era, and however original Dee’s conversations were in content and scope, they also contained many elements that were in keeping with medieval traditions of ritual magic.

With few exceptions, scholars have hitherto greatly underestimated Dee’s knowledge of, and dependency on, medieval ritual magic. This is largely due to a lopsided picture of ritual magic as primarily demonic or “black” in character, philosophically unsophisticated and practiced by a marginal group of people at the fringes of medieval society and culture. In recent years, however, this picture

⁶¹² Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 218.

⁶¹³ British Library, MS Sloane 3191, p. 10. One of Dee’s several crystal globes is still existent and is now part of the collections of the British Museum.

has slowly begun to change as scholars have started to appreciate the complexity and diversity of ritual magic. As a consequence, the importance of these sources to Dee's angelic conversations has attracted new attention. In a number of essays, Stephen Clucas has stressed the influence of pseudo-Solomonic literature on his angelic conversations,⁶¹⁴ whereas Sophie Page, who has examined the medieval magic manuscripts formerly in Dee's possession, has drawn attention to the fact that Dee's annotations and underlinings in these manuscripts are often concentrated upon the religious aspects of magic, such as the magical virtue of prayers and the power of certain stones to attract or repel spirits and demons — a feature that suggests a strong interest in religiously oriented magic long before his angelic conversations were inaugurated.⁶¹⁵

Although the religious orientation is the most prominent, and indeed defining, feature of ritual or ceremonial magic, earlier scholarship often tended to define ritual magic in opposition to Christian orthodoxy. In recent research, however, the focus has shifted to its dependency on the official teachings of the Church. By drawing on biblical historiography and the liturgical forms of the Church, practitioners of ritual magic could often legitimize their art as conformable to Christian faith. As a consequence, the distinctions between orthodox liturgy, mysticism and magic were blurred in many medieval traditions of ritual magic, a feature which is strongly reminiscent of Dee's angelic enterprises. As we shall see in the following chapters, there also existed a widely disseminated group of texts concerned with angelic magic, clearly influenced by Jewish mysticism and aimed at retrieving the wisdom once possessed by the biblical prophets and the prelapsarian Adam — elements that all figured prominently in Dee's angelic conversations.

Magic and religion

The fusion of magical and religious practices was a common phenomenon in medieval and early modern culture, to a large extent sanctioned by the Church itself. For centuries the Church had acknowl-

⁶¹⁴ Clucas, "‘Non est legendum sed inspiciendum solum’: Inspectival knowledge and the visual logic of John Dee's *Liber Mysteriorum*", and "John Dee's Angelic Conversations and the *Ars Notoria*: Renaissance Magic and Mediaeval Theurgy".

⁶¹⁵ Page, *Magic at St. Augustine's, Canterbury in the late Middle Ages*, pp. 179-190.

edged practices which seemed to dissolve the boundary between magic and religion, making them virtually indistinguishable to lay and clergy alike. Prayers in the names of God and Christ were attributed not merely a symbolic but an objective power to fend off evil spirits, whereas the sacramentals used in the liturgical rites, such as the blessed salt, the holy water and the candles blessed in the Candlemas ceremonies, were used to help ailing animals, promote fertility and protect against plagues. The Church also recognized that certain holy men could perform seemingly miraculous tasks, such as prophesying the future, controlling the weather, healing the sick and exorcizing evil demons.⁶¹⁶

Exorcism was one of the professional tasks of the clergy, and at the ordination ceremony every clergyman received a book of exorcistic prayers symbolizing its important role in his vocation. But the line between exorcising demons and conjuring them for personal ends was sufficiently vague to tempt even pious men to dabble in necromancy and ritual magic — after all, had not the disciples themselves boasted that demons were subject to them?⁶¹⁷ The line between sainthood and witchcraft was, in other words, a fluid one in the medieval and early modern era, and many necromancers conceived of their art as a holy one despite the decidedly mundane character of the ends they were pursuing.⁶¹⁸ A large portion of the remaining necromantic manuals are fairly simple compilations of practical magic, describing in a straightforward and matter-of-factly manner how conjurations, sacrifices, magic circles and suffumigations could be used to attain a variety of goals: how to become invisible, how to obtain information about a theft by gazing into a crystal or an anointed fingernail, how

⁶¹⁶ On this, see Duffy, *The Stripping of the Altars*, especially pp. 266-298, and Thomas, *Religion and the Decline of Magic*, especially the chapter “The magic of the medieval church”, pp. 27-57. As Duffy stresses (in opposition to Thomas), these practices were not an expression of “popular” beliefs which stood outside the framework of the official worship and teachings of the Church. Instead, these ideas “were built into the very structure of the liturgy” and were sanctioned and practiced by the Church itself.

⁶¹⁷ Luke 10:17. The term necromancy stems from the Graeco-Roman tradition and originally it referred to divination (*mantia*) by conjuring the spirits of the dead (*nekroi*). In Christian medieval literature, however, “necromancy” and the corruption “nigromancy” were equated with demonic magic, that is, conjuring of demons and evil spirits.

⁶¹⁸ See especially Kieckhefer, “The holy and the unholy: sainthood, witchcraft, and magic in late medieval Europe”.

to cause a dog to dance, how to expel mice and flies by use of magical images, how to seduce women by magical charms or, for the less ambitious, how to cause a woman to leap naked from her bath.

Despite the terrene and earthy nature of these tricks, ritual or ceremonial magic can be distinguished from medieval folk magic by the fact that the texts were written by and for a literate audience, and the ritual elements were to a large extent derived from a Christian framework familiar to the clergy. Until quite recently, scholarly attention to this genre of magic has been scarce, largely due to an erroneous belief that it formed a marginal theme in intellectual culture.⁶¹⁹ But, as Richard Kieckhefer points out, it “would be a mistake to think of necromancy as a peripheral phenomenon in late medieval society and culture”.⁶²⁰ In fact, magical texts of this kind were copied and read throughout Europe during several centuries and still exist in large numbers in libraries.⁶²¹ Most of these texts seem to have been copied by monks and there is ample evidence that the interest in necromancy flourished in what Kieckhefer terms a “clerical underworld”.⁶²² But the judicial records also attest to their extensive use outside this ecclesiastical subculture. In the later fifteenth century it was common in London to turn to necromancers to obtain information about thefts, and in 1409 no less a person than Pope Benedict XIII was charged with practising ritual magic, allegedly hiding a book of necromancy under his bed.⁶²³

⁶¹⁹ For two important and recent studies, see the essay volume edited by Claire Fanger, *Conjuring Spirits: Texts and Traditions of Medieval Ritual Magic*, and Kieckhefer, *Forbidden Rites: A Necromancer's Manual of the Fifteenth Century*, which also contains a critical edition of a necromantic manual, the Clm 849 of Bayerische Staatsbibliothek, Munich.

⁶²⁰ Kieckhefer, *Forbidden Rites*, p. 10.

⁶²¹ For a discussion of how widespread these magical texts were, see Frank Klaasen, “English Manuscripts of Magic, 1300-1500”. According to the library catalogues of British universities and monasteries from 1250-1500, well over half of the codices contained magical texts, including works of magical images, *Ars notoria* and necromancy/ritual magic. On this, see especially p. 26n4.

⁶²² Kieckhefer, *Magic in the Middle Ages*, pp. 151-175.

⁶²³ Kieckhefer, *Forbidden Rites*, pp. 100, 1-2; Kieckhefer, *Magic in the Middle Ages*, p. 155.

Dee and medieval ritual magic

Although Dee's angelic conversations differ considerably from the rituals described in these simple necromantic miscellanies, their dependence on medieval magic makes itself felt in other ways. One of the most widely disseminated genres of magical texts was the pseudo-Solomonic literature; that is, texts attributed to the biblical Solomon, renowned in Christian and Jewish tradition for his knowledge of the magical arts. In one of these texts, the fourteenth-century work *The Testament of Solomon*, it is recounted how Solomon built the Temple by defeating demons and using their skills by means of a ring and a seal which he had been granted by the archangel Michael.⁶²⁴ Turning to Dee's angelic diaries, we find that Solomon not only appears as one of the biblical sages who had had knowledge of the "Cabala of Nature", the wisdom contained in the elaborate tables of letters dictated by the angels⁶²⁵; at an early stage of the angelic conversations, Dee is also instructed to make a ring with the letters PELE, signifying one of the divine names of God, inscribed on it — indeed, the very ring "wherewith all Miracles, and diuine works and wonders were wrowght by Salomon". Revealed to mankind for the first time "since the death of Salomon", the ring was claimed to serve an important purpose in Dee's enterprises: "Without this, thow shalt do nothing", the archangel Michael declared. But to Dee's bewilderment, the angels soon lost interest in the matter.⁶²⁶

Whereas the demonic elements in the *Testament of Solomon* were conspicuous enough to raise suspicions in the mind of the most liberal reader, there also existed a group of pseudo-Solomonic texts which could more firmly be categorized as angelic magic. Among these we find a widely disseminated genre of magic texts originating in twelfth-century Christian context, with a generic term called *Ars*

⁶²⁴ Charlesworth, *The Pseudoepigrapha and Modern Research*, pp. 197-202; see also McCown, *The Testament of Solomon*.

⁶²⁵ Dee, *A True & Faithful Relation*, p. 65. See also p. 178, where the tables of letters are claimed to contain "the knowledge of Solomon".

⁶²⁶ Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 31-32. The connection to the *Testament of Solomon* has been pointed out by Clucas, "Non est legendum sed inspiciendum solum": Inspectival knowledge and the visual logic of John Dee's *Liber Mysteriorum*"; and Harkness, *John Dee's Conversations with Angels*, p. 38.

notoria or *Ars notaria*.⁶²⁷ Like most other pseudo-Solomonic texts, the *Ars notoria* was based on the biblical story recounting how Solomon in a vision of God was granted *sapientia*, *scientia* and *intelligentia*.⁶²⁸ Elaborating on this well-known story, the *Ars notoria* describes how prayers and certain mystical figures, so-called *notae*, can be used to acquire knowledge of a range of different disciplines. In the text, Solomon raises his prayers to God, beseeching him to illustrate his mind with “beams of thy holy Spirit” so that he might “be able to gain the knowledge of every Science, Art, and Wisdom; and of every Faculty of Memory, Intelligences, Understanding, and Intellect” — “O God my God ... who reformest, and makest all things by thy own Spirit; compleat, fulfil, restore, and implant a sound Understanding in me”.⁶²⁹

The *Ars notoria* was sufficiently well-known in the thirteenth century to incur the disapproval of Thomas Aquinas (1225-1274), who condemned the art in his *Summa Theologiae* on several grounds. Among his objections were its apparent kinship to Neoplatonic theurgy and that the prayers in the work contained unknown names, *verba ignota*, whose efficacy could only be derived from the intervention of demons. According to Aquinas, the work presented the ritual practices as by necessity effective, a feature that was characteristic of demonic magic which tried to constrain, command and force evil spirits, whereas licit magic was at the mercy of God’s or the angels’ own will to be effective.⁶³⁰ But in spite of Aquinas’ condemnation the *Ars notoria* remained one of the most widely read magical works for

⁶²⁷ For a general discussion of the *Ars notoria*, see Camille, “Visual Art in Two Manuscripts of the *Ars Notoria*”; and Fanger, “Plundering the Egyptian Treasure: John the Monk’s *Book of Visions* and Its Relation to the *Ars Notoria* of Solomon”, both in Fanger (ed.), *Conjuring Spirits*. In the following discussion I rely heavily on Sophie Page’s analysis of the *Ars notoria* in *Magic at St. Augustine’s, Canterbury in the late Middle Ages*, pp. 156-178. I am greatly indebted to her for being allowed to read her unpublished work.

⁶²⁸ II Chronicles 1:9-12 and II Kings 3:11-12.

⁶²⁹ *Ars Notaria: The Notary Art of Salomon*, pp. 2-3; I am quoting from Robert Turner’s English translation, which closely follows the printed version of *Ars notoria* in the spurious “Fourth Book of Occult Philosophy” of Agrippa. For the Latin passage, see *Ars notoria, quam Creator altissimus Salomoni revelavit*, p. 582. How this printed edition differs from the various manuscript versions is still an unexamined field.

⁶³⁰ Fanger, “Plundering the Egyptian Treasure: John the Monk’s *Book of Visions* and Its Relation to the *Ars Notoria* of Solomon”, pp. 222-224.

several centuries. Moreover, as the library catalogues attest, it was often compiled with religious texts of a decidedly orthodox character, which indicates that the work was commonly interpreted in terms of Christian mysticism, rather than as a work on demonic magic or Neoplatonic theurgy.⁶³¹

A plausible reason for this interpretation is the central role that the *Ars notoria* ascribed the practitioner's contemplation of special figures or *notae*.⁶³² This feature is strongly suggestive of Pseudo-Dionysius' theory of "contemplation", whereby the soul is "uplifted from external things, as from certain variegated and pluralized symbols, to the simple and united contemplation".⁶³³ Interestingly, Pseudo-Dionysius' theory of contemplation also formed the basis of his discussion of the sacraments. In the *Ecclesiastical Hierarchy*, he describes the Communion as a ritual making use of "divine symbols" which "uplifts" the believer, immersed in "blessed and conceptual contemplations", toward "the most holy source of the sacramental rite".⁶³⁴

The sacraments constituted yet another element of Christian dogma where the line between magic and religion at times seemed precariously thin. When the storm known as the Reformation swept over Christendom in the early sixteenth century, one of the central issues was the function and status of the sacraments. Though the Reformers' views differed in details, they unanimously rejected the Catholic dogma that the sacraments had an instrumental role in conferring God's grace on man — that the sacramental rituals, if correctly performed, in some sense *caused* grace.⁶³⁵ This view had been adopted by the Church in the form proposed by Thomas Aquinas, who had been careful to emphasize that the sacraments were not merely signifying divine grace, but were "in some way the cause of grace"; that is, they were signs whose function transcended the sym-

⁶³¹ Page, *Magic at St. Augustine's, Canterbury in the late Middle Ages*, p. 158.

⁶³² Reproductions of the *notae* can be found in Camille, "Visual Art in Two Manuscripts of the *Ars Notoria*".

⁶³³ Pseudo-Dionysius, "The Divine Names", 705B, in *The Complete Works*, p. 78

⁶³⁴ Pseudo-Dionysius, "The Ecclesiastical Hierarchy", 428A, in *The Complete Works*, p. 211.

⁶³⁵ For a general discussion, see Cameron, *The European Reformation*, pp. 156-167.

bolical, possessing a divine power which enabled man to participate in the “divine nature”.⁶³⁶

As a consequence, the gap between liturgical and magical practices grew perilously narrow. When Trithemius in his *Liber octo quaestionum* emphasized the difference between the sacraments and magical practices, defining the sacraments as signs (*signa*) of the graces of the Holy Spirit and characters and invocations as tokens (*notae*) of a pact between the magician and evil spirits, he also, paradoxically, highlighted their close kinship as performative means wherewith man could communicate with suprahuman entities.⁶³⁷ This kinship rendered it possible for practitioners of ritual magic to legitimize their art as a licit religious practice. In the *Ars notoria*, both the *notae* and the individual prayers containing *verba ignota* are claimed to contain “sacramental mysteries”, and the art as such is described as “a great sacrament of the Lord”, granted to Solomon through the agency of the Holy Spirit. Thus, by claiming that it paralleled the Church’s attitude towards the Mass and the sacraments, the *Ars notoria* could be treated as conformable to Christian faith and orthodoxy, despite the objections raised by the Church.⁶³⁸

Though it is uncertain whether Dee had an intimate knowledge of the text,⁶³⁹ the *Ars notoria* provides an illustrative example of how fluid the distinction between religious orthodoxy and ritual magic could be. As in most medieval ceremonial magic, the ritual practices

⁶³⁶ Aquinas, *Summa Theologica*, III, q. 62; I am quoting from the valuable collection of source texts on the subject edited by Paul F. Palmer: *Sacraments and Worship: Liturgy and Doctrinal Development of Baptism, Confirmation and the Eucharist*, pp. 134-140.

⁶³⁷ Trithemius, *Liber octo quaestionum* (Cambridge University Library, shelfmark H*.15.9(F)), sig. C5^v: “Nam sicut in ecclesia dei sacramenta *signa sunt gratiae* invisibilis spiritus sancti: ita in schola daemoniorum *characteres* quidam & *invocationis* modi notae sunt pacti hominis & spiritus maligni.” (Dee’s emphasis.)

⁶³⁸ Page, *Magic at St. Augustine’s, Canterbury in the late Middle Ages*, pp. 169-171.

⁶³⁹ Dee’s manuscript catalogue of 1557 lists an *Ars notaria* (now Oxford, Corpus Christi College, MS 233), but this is the legal text bearing the same name, not the magic work. His library catalogue of 1583 also lists an edition of Agrippa’s spurious “Fourth book” of the *De occulta philosophia* (Roberts and Watson (eds.), *John Dee’s Library Catalogue*, no. 743), but I have not been able to establish whether this edition contains the full-length version of the magic *Ars notoria* published in Agrippa’s *Opera*. His interest, however, is evident in his marginal annotations; see for instance his copy of Gohory’s *De usu & mysteriis notarum liber* (Cambridge University Library, shelfmark LE.19.8²), sig. C.ij.^v.

were legitimized by being embedded in a cultural narrative based on the biblical account of the ancient prophets and their divine wisdom. This narrative gave the magical practices scriptural authority as a divinely revealed knowledge and lent them credence as effective techniques, despite the lack of philosophical argumentation in the texts. Moreover, by emphasizing that the rituals relied on prayers intended to arouse the benevolence of God and the angels, and not on invocations that forced and constrained spiritual beings, practitioners of ritual magic could evade accusations of engaging in illicit practices. The Church itself, however, also acknowledged many practices which made it extremely hard to draw a definite line between prayers and invocations. Sayings of the Apostles and the names of God, Christ and the angels were used by both clergy and laymen to fend off evil, help labouring women, cure diseases and quell stormy seas.⁶⁴⁰ In practice, the distinction between devotional practices and magic often broke down completely, and in many texts on magic prayers are ascribed an instrumental role as a means by which the practitioner can achieve certain goals.⁶⁴¹ In Dee's angelic conversations, prayers and petitions clearly served an instrumental purpose,⁶⁴² and in many of his remaining books we find evidence of his interest in the magical power of *orationes*. In his copy of Pompilius Azalus' *De omnibus rebus naturalibus*, for instance, we find an underlined passage stressing that magic is inherent in the writings of the holy patriarchs, and that the *Ars notoria* is a licit form of magic, based on the power of prayers.⁶⁴³

Another feature that Dee's angelic conversations share with medieval traditions of ritual magic is the Jewish influences which many of these texts exhibit. Though the impact of kabbalistic teachings upon Christian scholarship would not reach its apogee until the late

⁶⁴⁰ Duffy, *The Stripping of the Altars*, pp. 266-280.

⁶⁴¹ For a general discussion of the role of prayer in magic, see Kieckhefer, *Magic in the Middle Ages*, pp. 69-75.

⁶⁴² For two valuable discussions of Dee's use of prayers, see Harkness, *John Dee's Conversations with Angels*, pp. 123-127; and Lucas, "John Dee's Angelic Conversations and the Ars Notoria: Renaissance Magic and Mediaeval Theurgy".

⁶⁴³ Cambridge, Emmanuel College, shelfmark 304.I.54, fol. 19: "Et de ipsorum formis in *vita* patrum et aliis scripturis sacris plures leguntur, tanquam *magica* consistentur. [...] *Arsque notoria* de apparentibus figuris bonorum angelorum, quam devote *orationibus*, & *sine peccato* mortali advocantur..."; Dee's emphasis. I am quoting from Harkness, *John Dee's Conversations with Angels*, pp. 40n125, 124n97, since I have not had the opportunity to see this work personally.

fifteenth century, some of the key elements of Jewish mysticism were appropriated by Christian ritual magic several centuries earlier. Again, an illustrative example is provided by the *Ars notoria*, in which the contemplation of *notae* had a central role, as had the incantation of *verba ignota*, names of God and the angels which were claimed to stem from ancient languages such as Hebrew and Chaldean and to contain “a greater Sense of Mystical Profundity” than could be expressed “in the poor Thread-bare Scheme of our Language”.⁶⁴⁴

The kinship to Jewish mysticism is indeed one of the most conspicuous features of the *Ars notoria*. Like Jewish mysticism, the *Ars notoria* was embedded in a cultural narrative centred on the wisdom of the ancient sages, and as ritual practices they were both aimed at man’s recapturing of this divinely granted knowledge. As Page notes in her analysis of the *Ars notoria*, the art “seems to close the gap between the pursuit of knowledge and the union with divine Wisdom”.⁶⁴⁵ Whereas the individual prayers were often formulated as pleas for God to infuse the practitioner with knowledge of the sciences and the liberal arts, the rituals were ultimately aimed at attaining a union with the divine. What the art offered was, in other words, a return to the participation in the divine Wisdom which the prelapsarian Adam and the prophets had enjoyed, a feature implied in Solomon’s plea for reformation: “O God my God ... who reformest, and makest all things by thy own Spirit; compleat, fulfil, restore, and implant a sound Understanding in me”.⁶⁴⁶

The medieval literature on ritual magic provides many examples on how the distinction between magic and mysticism broke down in this tradition. One text, which is of particular interest since Dee owned a copy of it, is the *Liber sacer sive iuratus* — the “Sacred or Sworn Book” — attributed to a certain Honorius of Thebes.⁶⁴⁷ Com

⁶⁴⁴ *Ars Notaria: The Notary Art of Salomon*, pp. 10, 7; for the original Latin, see *Ars notoria, quam Creator altissimus Salomoni revelavit*, pp. 583-4, 585.

⁶⁴⁵ Page, *Magic at St. Augustine’s, Canterbury in the late Middle Ages*, p. 168.

⁶⁴⁶ *Ars Notaria: The Notary Art of Salomon*, p. 3; *Ars notoria, quam Creator altissimus Salomoni revelavit*, p. 582: “Et tu Deus meus, qui in principio creasti coelum & terram, & omnia ex nihilo: qui in Spiritu tuo omnia reformas, comple, instaura, sana intellectum meum, ut glorificem te per omnia opera cogitationum mearum & verborum meorum.”

⁶⁴⁷ Dee’s fourteenth-century copy, now British Library, MS Sloane 313, contains only a few annotations and markings, possibly in Dee’s hand. I have also used a sixteenth-century English translation of this work: British Library, MS Royal

posed sometime in the first half of the thirteenth century, the work presents an elaborate ritual, involving purification by prayers, masses and days of fasting on bread and water. When these preparations had been properly executed, the practitioner made a mattress of “exorcized” hay, around of which he wrote a hundred specified names of God. Finally, having washed himself in clean spring water while praying to God, and put on specified clean clothes, he went into deep sleep on the mattress, whereupon he would attain a beatific vision of God, a *visio Dei* in which he would come “to know god the creator”, not as man had known him since the Fall, but “as Adame and the prophettes dyd know him”.⁶⁴⁸

Presenting man’s attainment of the beatific vision of God — and, in effect, his salvation — as obtainable through individual ritual, the text posed a potential threat to the authority of the Church and quickly incurred the disapproval of a number of authorities. And yet, since it was modelled on the biblical prophets, the art could also be legitimized as a licit form of religious practice. The hostility of the authorities might have been further enhanced by the conspicuous presence of Jewish elements in the text. The prayers contain names in distorted Hebrew and Chaldean, and the practitioner is instructed to “consecrate” the rite by the most holy name of God, the “Sememphoras of 72 letters” — a corruption of *Shem ham-M’forash*, a Hebraicized Aramaic phrase literally meaning “the now signified name”, another term for the ineffable Tetragrammaton.⁶⁴⁹ Interestingly, in Dee’s copy of the work some of these divine names were written on a “Sigillum Dei”, a seal which in its geometrical layout bears a striking resemblance to Dee’s own “Sigillum Emeth”.⁶⁵⁰ Like

17.A.XLII. For a general discussion of this text, see Mathiesen, “A Thirteenth-Century Ritual to Attain the Beatific Vision from the Sworn Book of Honorius of Thebes”.

⁶⁴⁸ British Library, MS Royal 17.A.XLII, fols. 8^{r-v}; MS Sloane 313, fol. 2^v.

⁶⁴⁹ British Library, MS Royal 17.A.XLII, fol. 28^v. The “Sememphoras of 72 letters” is common in Christian kabbalah; see for example Reuchlin’s *De verbo mirifico*, sigs. e2^v, e3^v; and Agrippa, *Three Books of Occult Philosophy*, III.11, p. 474. For a discussion of Jewish influences on *Liber Iuratus*, see Kieckhefer, “The Devil’s Contemplatives: The *Liber Iuratus*, the *Liber Visionum* and the Christian Appropriation of Jewish Occultism”.

⁶⁵⁰ British Library, MS Sloane 313, fol. 4^r. Cf. Dee’s “Sigillum Emeth” in MS Sloane 3188, fol. 30^r. The similarity has been pointed out by Stephen Clucas in “Non est legendum sed inspiciendum solum”: Inspectival knowledge and the visual logic of John Dee’s *Liber Mysteriorum*, where the two seals are also conveniently

in Dee's angelic conversations, the art described in *Liber sacer* was also intended to infuse the practitioner with knowledge of every known discipline. The rituals were magical means to "obtainne all syences" and to "know all thinges present past and to comme".⁶⁵¹

Dee thus had a variety of sources in his possession which often left discernible marks in his ritual practices. Some of the sources he explicitly refers to in the angelic conversations are the *Elementis Magicis* of Peter of Abano (d. c. 1316) and the *Clavis Agrippae* — the spurious "Fourth Book of Occult Philosophy" — which, he notes, "lay in my Oratorie amost vnder my wyndow" during the sessions.⁶⁵² These works provided him with a brief summary of the standard procedures of ceremonial magic, many of them figuring prominently in his own angelic conversations. The practitioner desirous "to invoke any good spirit" should use seals or lamins made either of metal or "in new wax, mixt with species and colours conformable", shaped "according to the rule of numbers" and with "divine names" written upon them. Every instrument used in the rite should be consecrated by "anoynting it with holy Oyl, sealing it with some holy Sigil, and blessing it with prayer".⁶⁵³ The invocations should be recorded in a "book of Spirits" made of pure "virgin-paper" — a suggestion that Dee seems to have followed when preparing his own "Fundamenta invocationum" — and the place of the ritual should be "clean, pure, close, quiet, free from all manner of noise, and not subject to any strangers sight", a piece of advice which Dee found some difficulty in observing in a household in which staff and visitors were constantly thronging.⁶⁵⁴ Likewise, many of the divine names that Dee used to

reproduced for comparison.

⁶⁵¹ British Library, MS Royal 17.A.XLII, fols. 5^r-6^v.

⁶⁵² Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 38-39. Since he states that Abano's *Elementis Magicis* was printed in the *Clavis Agrippae*, this can only refer to the spurious "Fourth Book" of *De occulta philosophia*, which is a compilation of various texts on ceremonial magic. All references are to Robert Turner's English translation (London, 1657).

⁶⁵³ [Pseudo-]Agrippa, *Fourth Book of Occult Philosophy*, pp. 61, 55.

⁶⁵⁴ [Pseudo-]Agrippa, *Fourth Book of Occult Philosophy*, pp. 57, 60; Dee's "Fundamenta invocationum" is now British Library, MS Sloane 3191 art. 5. On his problems in finding a secluded place for his rituals, see Harkness, *John Dee's Conversations with Angels*, pp. 26-27. As Clucas has shown, the notion that ritual magic required a secluded place recurs frequently in pseudo-Solomonic literature, see his "John Dee's Angelic Conversations and the Ars Notoria: Renaissance Magic and Mediaeval Theurgy".

invoke angels, either orally or imprinted on seals, were in accordance with the popular necromantic tradition. On the back side of the great wax seal, for instance, we find the letters AGLA imprinted — a traditional abbreviation of the Hebrew phrase *Ata gibor leolam Adonai*, “Thou art mighty for ever, O Lord”.⁶⁵⁵

Another feature which Dee’s angelic conversations had in common with medieval necromantic tradition was the tension, and sometimes fusion, of two different conceptions of how “spirits” and “demons” should be defined. In the orthodox Christian tradition, demons were fallen angels whose rebellion against God was an act of moral choice. They were therefore in possession of a free will, and as supraterritorial beings they were clearly incorporeal. In the Graeco-Roman tradition, however, we find a notion of *daimones* (Lat. *daemones*) as rational beings whose natural sphere was the sublunary air, thus having a natural sphere between humans in the terrestrial realm and angels residing in the supraterritorial world. These beings were not fallen angels, but spirits with some degree of materiality. Nor were these *daimones* naturally evil, but could be either good or evil, and were usually understood as organized in a hierarchy, styled as “kings”, “princes”, “dukes” and so forth. This conception, stemming from Apuleius’ *De deo Socratis*, was to influence the Christian notion of demons and spirits through Neoplatonic writers like Iamblichus, Proclus and Psellus, and in necromantic treatises we often find the two conceptions fused into a single hierarchy of spirits.⁶⁵⁶

This syncretistic notion of angels and spirits is a conspicuous feature in Dee’s angelic diaries, and in his recorded conversations the archangels Michael, Gabriel and Uriel appear side by side with lower *daimones* such as Bobogel, Murifri and Lundrumguffa, names sometimes coinciding with necromantic tradition, but in most cases unique to his conversations. Despite the uniqueness of his spiritual world, however, it is clear that he was also interested in textual sources treating this subject. One example is his extensively underlined copy of the *Liber de essentia spirituum*, which describes such spiritual

⁶⁵⁵ For its occurrence in sources with which Dee was familiar, see for instance his copy of the *Liber Iuratus*, MS Sloane 313, fol. 17^v; Peter of Abano, *Magical Elements*, in [Pseudo-] Agrippa, *Fourth Book of Occult Philosophy*, pp. 81-83; and Agrippa, *Three Books of Occult Philosophy*, III.11, p. 474.

⁶⁵⁶ Kieckhefer, *Forbidden Rites*, pp. 154-155.

hierarchies, the powers and characteristics of certain spirits and the means by which they can be invoked.⁶⁵⁷

True faith and orthodox faith

Despite the frequent borrowings from textual sources, however, it would be a futile task to try to understand his doings solely through these influences. To Dee the angelic conversations were a matter of divine revelation, and in his diaries he meticulously recorded the proper ritual practices as revealed by the divine messengers. It is not surprising that the angelic conversations, which were to a large extent taken on trust, appear as an incoherent hotchpotch of different sources. Nor is it surprising that once Dee's trust had grown sufficiently strong, he felt confident enough to cross the line of the most liberal orthodoxy — as he did when he obliged the angels' request that he and Kelley should share wives.

But the distinction between licit and illicit practices remained a burning question, and Dee's diaries are replete with notes recording his suspicion that they were in the hands of "evil spirits" when the angels' instructions were on the border of the admissible. His indignation when he caught his first scryer Barnabas Saul dabbling in demonic magic is unmistakable, and in the diary he noted how he performed an exorcistic ritual and warned Saul against further experiments by referring to Roger Bacon's condemnation of "wycked Diuel Callers".⁶⁵⁸ The annotations in his remaining books also attest to his interest in the issue,⁶⁵⁹ and in 1597, long after his angelic conversa-

⁶⁵⁷ Dee's copy is now part of Oxford, MS Corpus Christi College 125; see Page, *Magic at St. Augustine's, Canterbury in the late Middle Ages*, p. 187 for a discussion.

⁶⁵⁸ Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 11, 24. The text he refers to is Bacon's *Epistola de secretis operibus artis et naturae, et de nullitate magiae*, which he owned in several copies; see Roberts and Watson (eds.), *John Dee's Library Catalogue*, p. 62, and nos. 616, B239c, D4 and DM 163. One of Dee's copies with his annotations was used for the Hamburg edition published in 1618, also published in English translation in 1659: *Frier Bacon, his Discovery of the Miracles of Art, Nature, and Magic*. For the relevant passage, see p. 3.

⁶⁵⁹ See for instance his copy of Trithemius' *Liber octo questionum*, in which the chapters "De miraculis infidelium" and "De potestate maleficarum" are the most heavily annotated (Cambridge, Cambridge University Library, shelfmark H*.15.9(F), sigs. B7^v-D3^v, E7^v-F6^v). Likewise, in Arnaldus de Villanova's *Opera* he has marked a passage rejecting demonic magic (London, Royal College of Physicians, shelfmark D 89/6, 8c, fol. 141^v); and in Plotinus' *Enneads* he has made

tions had become known to the public, he was consulted to give his opinion concerning the occurrences of demonic possession in Lancashire. Though he declined an active role in the trial, saying he “would not meddle” with such matters, he lent the local judge some of the classic works on witchcraft, including Wier’s *De praestigiis daemonum*, Menghi’s *Faustis daemonum* and the notorious *Malleus maleficarum*.⁶⁶⁰

Perhaps Dee’s unwillingness to get involved in a witch trial was a result of the bitter aftertaste left by his own experiences in the field. Despite his own trust and confidence in the angels’ good nature, the angelic conversations were fated to raise hostility from religious quarters. The Catholic Church was reluctant to acknowledge that individuals could communicate directly with God and his angels and took a sceptical stance towards Dee’s revelations. As Dee himself phrased it, the Church maintained that “in our time, and in the present condition of the world, all revelation by divine communication has ceased, and that no such revelation is made or no true prophesy given to mortals”. Moreover, since Dee was a married man and “thus given to the cares of this life and to worldly matters”, the Church considered him an unlikely candidate for such an eminent status, “for that happened only to very holy persons, and to solitary hermits”. Consequently, the papal nuncio Johannes Bonomo, Bishop of Vercelli, deemed Dee’s supposedly “blessed spirits” to be “evil ones”, which Dee “regardless of the Church’s disapproval” had invoked “with the aid of certain magical characters”.⁶⁶¹

Dee’s apparently flexible religious convictions during the tumultuous years preceding Elizabeth’s reign and his remarkable ability to maintain friendly relations with both Catholics and Protestants throughout his career have raised the question of his “true” faith. An illuminating example of his seemingly contradictory position is the text, now lost, which he composed in 1581, entitled *De modo Evange-*

notes on “Necromantia” next to Ficino’s discussion of the demonic aspects of magic (London, Royal College of Physicians, shelfmark D 124/5, 17c, fol. 41’).

⁶⁶⁰ A detailed account of the incident is given in Darrell, *A True Narration of the Strange and Greivous Vexation by the Devil of 7. Persons in Lancashire*, pp. 1-13; on Dee’s involvement, see p. 2. The book loans are recorded in Dee, *The Private Diary*, pp. 57, 59. See also Roberts and Watson (eds.), *John Dee’s Library Catalogue*, pp. 56-57.

⁶⁶¹ Dee, *Praefatio Latina*, pp. 227-229. See also Harkness, *John Dee’s Conversations with Angels*, pp. 56-57 for a discussion.

lii Jesu Christi publicandi, propagandi, stabiliendi inter Infideles Atlanticos, a work he presented not only to Elizabeth and her Protestant government, but also to the pope and Philip II of Spain, the two most important Catholic forces in Europe at the time.⁶⁶² That Dee chose this path at a date when his communication with God's angels was still an unfulfilled dream suggests that even before the angelic conversations he subscribed to a belief which would grow into a central theme of the divine revelations: the belief in a universal religious restoration which would heal the chasm between Protestants and Catholics. During the conversations, the angels reproached both the clergy in Rome for abusing the "authority of the Highest", and the Reformers who had "erred, and wilfully runne astray" from the faith taught by Saint Peter.⁶⁶³ What the angels claimed — and Dee firmly believed — was that the angelic revelations would restore Christianity to its true and proper condition, a condition which differed from both Protestant and Catholic dogma. "*Out of these books*", said the angels concerning the table of letters he collected from their dictation, "*shall the true Doctrine of the Prophets, and Apostles be gathered*" — "this Doctrine, is the mysteries of the word of God, sealed from the beginning, now delivered unto man, *for that Reformation which must be in One unity established unto the end*".⁶⁶⁴ As God's appointed prophet, Dee would bring Christianity back to unity and spread the true Word to mankind, the very Word which would make "the son of GOD ... known in POWER, and establish a Kingdom with righteousness in the earth, and then cometh the end".⁶⁶⁵

Dee's belief in a coming restitution of religion had a precedent in the works of Guillaume Postel, with whom he had become acquainted in Paris in the early 1550s. By this time, Postel had made himself infamous in religious circles by announcing the advent of the era of Restitution, the age which would see the formation of a universal religious utopia, based on the truth of the Gospel. Postel's conviction was strengthened by the disclosures made by a fifty-year-old female mystic, Mother Zuana or Johanna, who described Postel as a

⁶⁶² Dee, *The Compendious Rebersall*, p. 26. For a discussion, see Harkness, *John Dee's Conversations with Angels*, p. 150.

⁶⁶³ Dee, *A True & Faithful Relation*, pp. 411-412, 233.

⁶⁶⁴ Dee, *A True & Faithful Relation*, pp. 61, 64. Cf. Daniel 12:9: "for the words are closed up and sealed till the time of the end".

⁶⁶⁵ Dee, *A True & Faithful Relation*, p. 65. See also Harkness, *John Dee's Conversations with Angels*, pp. 149-150.

true prophet of the Lord, a reborn Elias. Gradually Postel became convinced that Johanna was the Second Messiah, the Mother of the World, destined to redeem humanity from its original sin — and he her chosen prophet. In 1549, however, the authorities lost patience and forced Postel to leave Venice and Mother Johanna, and when he returned the following year he was informed of her death. But rather than abandoning his beliefs, he claimed to feel her spirit invading his body and continued to announce the coming Restitution. In 1555, a few years after he became acquainted with Dee, he was questioned by the Inquisition, which declared him *non malus, sed amens* — “not evil, but mad”. His life was spared, but he was sentenced to an imprisonment which lasted until 1564. Until his death in 1581, he lived a reclusive life in a French monastery, where he wrote a repudiation of his earlier views.⁶⁶⁶

Interestingly, Postel attributed to language a fundamental role in this coming restitution of religion. Regarding Hebrew as the original prelapsarian language, created by Adam according to the principles of the divine Wisdom, he believed that a study of this language could reveal and verify the true tenets of Christian faith. Since the principles of the divine Wisdom were innate in man, these basic tenets were common to all religions, and a study of Hebrew could therefore lay the foundation for a “universal peace” between different faiths. The parallels between Postel’s views and Dee’s conviction that the Adamic language was capable of establishing a kingdom of righteousness on earth by comprising God’s Word are sufficiently strong to suggest an influence of Postel on Dee. Significantly, in Dee’s heavily annotated copy of Postel’s *De originibus*, a work devoted to the history and properties of language, we find a marked and underlined passage summarizing Postel’s views on the coming “universal peace”.⁶⁶⁷

⁶⁶⁶ On Postel’s career, see Kuntz, *Guillaume Postel: Prophet of the Restitution of All Things*; and Bouwsma, *Concordia Mundi: The Career and Thought of Guillaume Postel*.

⁶⁶⁷ Postel, *De originibus* (London, Royal College of Physicians, shelfmark D 144/14, 21b), p. 8: “Verum nunc & originem gentis nobis cognate, & natura & religione coniunctae tradere, & modos quibus in summa pace possimus cum illis componere, finemque ad quem mundus est conditus, id est, *pacem in universo*, conquirere visum est.” (Dee’s emphasis).

Trithemius and ritual magic

Due to the appropriation of pagan and Jewish thought in the Renaissance, ritual magic changed character. In the fifteenth century, Jewish kabbalists had absorbed much of the Christian medieval traditions of ritual magic, gradually transforming the contemplative kabbalistic techniques into ritual practices.⁶⁶⁸ These ritualistic elements were further accentuated in Christian kabbalah, and in the works of Johannes Reuchlin kabbalah was presented as a form of ceremonial or angelic magic, by means of which man could conjoin with God by using prayers, singing, incantations and music to invoke the seventy-two angels of the Lord.⁶⁶⁹ Though these ritualistic elements provoked a massive critique from Protestants like Erasmus, they were legitimized by Reuchlin's firm belief in the unity of ancient knowledge. In Reuchlin's syncretistic conception of kabbalah, the Jewish teachings were fused not only with Pythagorean number symbolism, but also with Iamblichian notions of theurgy and Plotinian notions of magic. The revival of Neoplatonic and Hermetic materials in the Renaissance, to a large extent a result of Ficino's Latin translations, was thus essential to the Christian conception of kabbalah as a religious ritual, intimately bound up with both Neoplatonic and medieval forms of ceremonial magic. This fusion of different philosophical traditions found its most extravagant expression in Agrippa's *De occulta philosophia*, in which figures like Pythagoras, Plotinus, Aristotle, Solomon, Moses, Lull, Zoroaster, Hermes, Orpheus, Avicenna, Thomas Aquinas and Merlin were invoked side by side as authorities on the magical arts. In his third book, Agrippa presented ceremonial magic as an amalgamation of Neoplatonic, medieval and kabbalistic notions, stressing the role of Hebrew names of God and the angels, numbers, magic circles, sacrifices and suffumigations.

Both Reuchlin and Agrippa were close acquaintances of Johannes Trithemius, whose writings were of great importance to the notions put forth in Dee's *Monas hieroglyphica*. Of Reuchlin's role we know little except that he served as Trithemius' teacher in Hebrew,

⁶⁶⁸ Idel, "The Magical and Neoplatonic Interpretations of the Kabbalah in the Renaissance", pp. 188-200.

⁶⁶⁹ Reuchlin, *On the Art of Kabbalah*, especially pp. 258/261-312/315. For a general discussion, see Zika's essays "Reuchlin's *De Verbo Mirifico* and the Magic Debate of the late Fifteenth Century"; and "Reuchlin and Erasmus: Humanism and Occult Philosophy".

but Agrippa considered himself something of a disciple of Trithemius and dedicated the first version of his *De occulta philosophia* to him as an expression of gratitude for their discussions on the occult arts.⁶⁷⁰ Agrippa's great respect for his former teacher and mentor was not shared by everyone, however, and in the sixteenth century Trithemius was known as one of the most controversial characters in the study of occult sciences, alternately described as an imaginative dilettante, a conjurer of demons and an ambitious impostor. He earned this tainted reputation through a work which would provoke controversy among scholars for several centuries, and which aroused Dee's interest at an early date. In February 1562 Dee rapturously wrote to Sir William Cecil from Antwerp, informing him of the books he had found after "diligent serche and travaile":

I have purchased one boke, for which a thowsand crownes have ben by others offred, and yet could not be obtayned; a boke, for which many a lerned man hath long sought and dayly yet doth seek; whose use is greater than the fame thereof is spred; the name thereof to you is not unknowne. The title is on this wise, *Steganographia Joannis Tritemij*...⁶⁷¹

Dee might indeed have been correct when surmising that Cecil had heard of the work: the *Steganographia* of Trithemius was one of the most infamous texts circulating in manuscript form in Europe, and when finally published in 1606 it was immediately placed on the Index of the Catholic Church.⁶⁷² The text presents a complicated technique for transmitting secret messages with the aid of certain "spirits of air" — *spiritus aerii* — which the practitioner could command by taking astrological conditions into account and using elaborate conjurations to invoke the proper spiritual "servant":

Hydriel, apron chamerote, satrus pean nearmy chabelon, vearchas, belm, nothelmy phameron, arsoy pedaryn onzel, lanedo

⁶⁷⁰ Brann, *Trithemius and Magical Theology*, pp. 6, 152-156. See also Agrippa's letter to Trithemius, in *Three Books of Occult Philosophy*, pp. liii-liv, originally published in the *Epistolarum* of Agrippa's *Opera* (Lyons, 1600).

⁶⁷¹ Dee, "A Letter of John Dee to Sir William Cecyl", pp. 9-10.

⁶⁷² The best discussion of *Steganographia* can be found in Brann, *Trithemius and Magical Theology*, pp. 135-147; on the debate over Trithemian magic in the sixteenth- and seventeenth centuries, see pp. 157-237. For a brief overview, see also Walker, *Spiritual and Demonic Magic*, pp. 86-90.

drubel areon veatly cabyn & noty maleros haytny pesary does...

When the spell is spoken, the spirit you have called will approach with his servants appointed to that hour and will be obedient to you in everything and faithful to everything on which you send him.⁶⁷³

When the spirit has appeared, the practitioner tells him his message, then sends a written message to the person he wants to contact, containing a hidden reference informing him which spirit is concerned, whereupon the other person can invoke the same spirit and have the secret message recited.

This cumbersome technique is repeated with small variations throughout most of the work, but in the third and unfinished part of the text the pattern changes. Here Trithemius claims that it is possible “by means of a certain art to make the concept of our mind known to a friend, however distant [he is], within the space of twenty-four hours, without words, without books, and without messengers”.⁶⁷⁴ What Trithemius proposed was a method for telepathy based on the intermediation of planetary angels or spirits, a method, he claimed, he had managed to verify by experiment after lengthy efforts.⁶⁷⁵ As in the rituals described in the first parts of the work, the practitioner is instructed to examine the astrological relations between the heavenly bodies and the invoked spirit. In the case of Saturn, for example, he is to make sure that the proper relations between the planet Saturn and Orifiel, the angel of Saturn, are present. He then constructs two images of wax or paper, one in the likeness of the friend he wishes to contact, the other in the likeness of Saturn, bearded and standing on a bull with a book and a pen in his hands. Next, he joins the two images, simultaneously invoking Orifiel in the name of God, the Son and the Holy Spirit to make the message known to his friend. The joined images are then rolled up in a clean cloth and placed in a sealed vessel at the entrance of a house for twenty-four

⁶⁷³ Trithemius, *Steganographia*, p. 70: “Carminē dicto, Spiritus quem vocasti aderit, cum servitoribus sibi secundum horam deputatis, eritque tibi in omnibus obediens, & fidelis ad omnia, ad quae miseris eum”.

⁶⁷⁴ Trithemius, *Steganographia*, p. 160: “...esse possibile, ut quadam arte mentes nostrae conceptum amico notum faciamus, quantum libet absenti, in 24. horis, sine verbis, sine libris, & sine nuncio...”

⁶⁷⁵ Trithemius, *Steganographia*, p. 160: “...post multos labores tandem inveni ipsam scientiam experientia probatam”.

hours, whereupon the absent friend will come to know his innermost thoughts exactly as they were spoken when the images were made.⁶⁷⁶

The kind of image magic described in these rituals was a commonplace element in medieval traditions of ceremonial magic. For example, in the widely read *De imaginibus* of Thabit B. Qurra, translated into Latin by Adelard of Bath, we find a ritual for causing love which involves the construction of two images in the likeness of the concerned parts, which are then placed together while the practitioner prays to God to grant his quest.⁶⁷⁷ Many of Trithemius' statements suggest that the work contained more than a cursory reading reveals, however, and despite the apparent commonality of the magic rituals, scholars have been reluctant to take the treatise at face value. Not only did Trithemius claim that everything in the work rested upon "true, Catholic and natural principles", a surprising statement considering its apparent reliance on spiritual forces⁶⁷⁸; he also implied that a knowledge of kabbalah was necessary to understand his work, boldly stating that whereas the true purpose and meaning of the art could be comprehended by a few knowledgeable persons, it would for all time remain hidden to the "ignorant turnip-eaters" and never be grasped by their dull intellects.⁶⁷⁹

As early as 1624, August II of Braunschweig-Lüneburg, writing under the pseudonym Gustavus Selenus, proposed that the *Steganographia* was a treatise on cryptography, and that the spiritual elements were merely a disguise intended to keep the secret techniques from falling into the wrong hands. The suggestion is lent credence both by the title of the work and by the fact that Trithemius had written an extensive text on cryptography, the *Polygraphiae libri VI*, and though

⁶⁷⁶ Trithemius, *Steganographia*, p. 177. The text contains a lacuna which obscures the fact that the ritual involves the construction of two separate images, but this is made clear by the following paragraph.

⁶⁷⁷ The two known Latin versions of *De imaginibus* can be found in *The Astronomical Works of Thabit B. Qurra*, edited by Francis J. Carmody, pp. 180-197. For a general discussion, see also Burnett, "Talismans: Magic as Science? Necromancy among the Seven Liberal Arts". Similar rituals can also be found in the necromantic manual recently published in Kieckhefer, *Forbidden Rites*, especially pp. 199-203, 226-228; and for Kieckhefer's discussion, pp. 82-89.

⁶⁷⁸ Trithemius, *Steganographia*, sig. 4^r: "...veris, catholicis & naturalibus principiis innituntur".

⁶⁷⁹ Trithemius, *Steganographia*, sigs. 3^r-4^r, and p. 161: "...& tamen imperitis Rapophagis omni tempore maneat occultatum, & nullatenus eorum obtuso intellectui cognitum".

the scholarly debate on the true motives of Trithemius' is far from resolved, it has been shown beyond doubt that such an interpretation is possible.⁶⁸⁰

It is highly unlikely that Dee interpreted the *Steganographia* as a treatise on cryptography, however. When writing to Sir William Cecil to inform him of his findings, he rapturously exclaimed that it was "the most precyous juell that I have yet of other mens travailes recovered". And though he was unable to hide his bewilderment and difficulties in deciphering it, he confidently remarked that he did not doubt that he would soon attain a proper understanding of it, helped by God's grace and by "the conference with such men as already are in my *Kalendar*. Men hard to finde, although daily seen" — a phrase that suggests that he considered a true understanding of the text to be reserved for those few who were privy to the secrets of the occult sciences.⁶⁸¹ He also explained that the *Steganographia* was one of several books he had found in Antwerp which had proved helpful in his studies of those "wunderful sciences" which could help us understand God's "powre and goodnes" — "the science *De numeris formalibus*, the science *De Ponderis mysticis*, and the science *De Mensuris diuinis*: (by which three the huge frame of this world is fashioned, compact, rered, stablished, and preserved)..."⁶⁸²

In describing the *Steganographia* as a work dealing with "formal numbers", "mystic weights" and "divine measures" — again, an evocation of the scriptural dictum that God created the world in "number, weight, and measure" — Dee situated it in the same context as his own *Monas hieroglyphica*, published in Antwerp two years later. At first sight, such an interpretation might seem unfounded, since the *Steganographia* itself does not contain anything to support it. The reason for Dee's reading becomes clear, however, when we turn to

⁶⁸⁰ Walker's argument (in *Spiritual and Demonic Magic*, pp. 87-88) that the third part lacks invocations which can be shown to be enciphered messages, and hence that it can only be interpreted as dealing with angelic magic, has recently been undermined by Thomas Ernst (see Brann, *Trithemius and Magical Theology*, pp. 146, 285n144). The question why Trithemius would have chosen such a dangerous disguise to present conventional cryptographic techniques remains, however, and it should be remembered that Trithemius' cryptography was intimately linked to the occult sciences. For a summary of the most recent discussions, see Brann, *Ibid.*, pp. 243-247.

⁶⁸¹ Dee, "A Letter of Dr. John Dee to Sir William Cecyl", pp. 10-12.

⁶⁸² Dee, "A Letter of Dr. John Dee to Sir William Cecyl", p. 6-8.

Jacques Gohory's *De usu et mysteriis notarum*, which he bought barely a month before he wrote his letter to Sir Cecil.⁶⁸³ As we have seen, this work provided Dee with lengthy extracts from Trithemius' letters, summarizing his views on numerology, and in Dee's personal copy we find numerous references to the Monas symbol.⁶⁸⁴ These extracts are followed by a discussion of the *Steganographia*, which might have been what fuelled Dee's interest in the work. In this discussion, Gohory gave a brief account of the ritual involving telepathic mediation of messages by the agency of Orifiel, the angel of Saturn. Rather than interpreting the ritual as angelic or demonic magic, however, Gohory describes it as a form of natural magic, explaining how "likenesses" (*simulacra*) of the images fabricated by the practitioner are multiplied by the air, and on a clear night reflected back together with the rays of the moon, and are therefore visible even at distant places.⁶⁸⁵

In omitting the spiritual aspect of the ritual, Gohory's description differs considerably from Trithemius' own account. A plausible source for this interpretation is Agrippa's *De occulta philosophia*. In the first part of this work, Agrippa described the element air as a vital spirit which fills all things and binds them together; it also "receives into itself, as it were a divine looking glass, the species of all things" and carries them with it. These species, emitted by all things, whether artificial or natural, contained the power and inner virtue of the things, and could therefore make an impression on the soul of man. For instance, when a man passed a place where "a man was slain, or the carcass newly hid", he was moved with fear and dread because the place was "full of the dreadful species of manslaughter" which moved and troubled his soul. These species, "multiplying in the very air", were also "the cause of dreams and many other impressions of the

⁶⁸³ Dee's copy (Cambridge University Library, shelfmark LE.19.82) is dated "1562 Antwerpia Januarij Die 20" on the title page.

⁶⁸⁴ Discussed above, pp. 231-237.

⁶⁸⁵ Gohory, *De usu et mysteriis notarum* (Cambridge University Library, shelfmark LE.19.82), sig. L.ij.º: "Eodum modo vulgus acciperet quod à Pythagora Celsius Rodiginus in lectionibus antiquis factum fuisse scribit (de quo nos supra mentionem facimus) quod mirabile praestigium videri possit: *ut pictas certo artificio imagines scriptasue literas nocte serena radiis lunae opponas, quarum simulacris in aëre multiplicatis sursumque raptis una cum lunae radiis reflexis*, alius rei conscius à tergo in disco lunae videt legitque, quanquam magno locorum spacio semotus..." (Dee's emphasis).

mind”, and it was therefore possible for a man without the mediation of spirits “to signify his mind unto another man, abiding at a very long and unknown distance from him” — “I myself know how to do it, and have often done it. The same also in time past did the Abbot Trithemius both know and do”.⁶⁸⁶

Dee’s personal copy of the *Steganographia* has never been recovered and whether he accepted Gohory’s interpretation of it remains an open question. It is plausible, though, that his interest in the *Steganographia* was fuelled by the intimate link between the practical application of magic and Trithemius’ numerological meditations, a link which was more pronounced in Gohory’s text than in the *Steganographia* itself. In the extracts from Trithemius’ letters that Gohory included in his work, Trithemius stressed that the numerical progression from unity to quaternary was the very foundation of magic, and that without a proper knowledge of these numbers, no man would be able to make powerful talismans, perform alchemical transmutations, predict the future — or command spirits.⁶⁸⁷

In Dee’s angelic diaries we find the numerological notions developed in the *Monas hieroglyphica* echoed often enough to suggest that Dee considered them intimately connected to his angelic conversations.⁶⁸⁸ During some confusing sessions — confusing even by the standards of the angels, whose intelligibility often left much to be desired — the angels remarked that the Adamic characters painted on the ritualistic table were essential to the rite “because thy diuinitie and secret powre is here shut vp in *Numero Ternario et Quaternario: à quo principium et fundamentum omnia huius est tui sanctissimi operis*” — “In the number of the ternary and quaternary: in which the whole

⁶⁸⁶ Agrippa, *Three Books of Occult Philosophy*, I.6, pp. 17-18.

⁶⁸⁷ Gohory, *De usu et mysteriis notarum liber* (Cambridge University Library, shelfmark LE 19.8²), sig. I.ii.^v, quoted above, p. 237.

⁶⁸⁸ For some examples, see Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 62, 64, 106, 361-362. It is indeed possible that the angels referred to Dee’s mathematical demonstrations in *Monas hieroglyphica* when discussing the design of a golden plate, provided with the letter I and the words “Omnia unum est”. The angel II remarked that “my demonstration and yours are not all one: you will not be offended wth me, syr”, which occasioned Dee to make the marginal note “lepidè, mathematicas meas demonstrationes denotat”. See *Ibid.*, p. 363; and p. 64 for a drawing of the plate.

origin and foundation of this your most holy work lies".⁶⁸⁹ Clarifying their point, they explained that the characters were "instruments of dignification": "blessed" signs whereby Dee would be "dignified". The belief that a magician's power was dependent on the dignification of his soul — an elevation or exaltation of the soul which enabled him to use the highest faculties of his mind — was a common notion, treated at length in, for instance, Agrippa's *De occulta philosophia*.⁶⁹⁰ In contrast to Agrippa, however, the angels echoed the Trithemian notion that the practitioner's dignification could only be attained through "the square number of 3 and 4".⁶⁹¹

Though these particular sessions are unusually obscure and difficult to follow, they are of great interest, not only because they highlight that the ideas that constituted the core of Dee's earlier work were present in the angelic conversations; they are also explicitly dealing with the instrumental and magical role of the ritual paraphernalia. Both the divine characters and the table used in the rituals were described by the angels as "Instruments of Conciliation", as tokens by means of which the practitioner established a bond or covenant with God.⁶⁹² The notion is suggestive of Christian kabbalistic teachings; and in *De verbo mirifico*, one of the few kabbalistic works Dee refers to in the angelic conversations, Reuchlin describes the divine names of God as a means by which a *concilium* is established between man and God.⁶⁹³ But it is also suggestive of the Catholic view of the sacraments as signs "used by divine ordinance to confer grace on men"; a grace defined as the deification of man's soul by way of its likeness to, and participation in, God.⁶⁹⁴

A third property of the Adamic letters, apart from their function as a means by which the practitioner's soul was "dignified" and "con-

⁶⁸⁹ Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 357. The statement probably refers to the fact that the characters were arranged in groups of 12 (=3x4) and 21 (=3x(4+3)); see Whitby's commentary in vol. I, p. 542.

⁶⁹⁰ Agrippa, *Three Books Of Occult Philosophy*, III.3, pp. 448-449.

⁶⁹¹ Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 361-362.

⁶⁹² Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 362.

⁶⁹³ Reuchlin, *De verbo mirifico*, sigs. c5^v, c8^r. For Dee's reference to this work, see Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 31-32.

⁶⁹⁴ In *Summa Theologica*, III, q. 62, Aquinas states that "grace is nothing else but a likeness by way of participation in the divine nature"; quoted from *Sacraments and Worship: Liturgy and Doctrinal Development of Baptism, Confirmation and the Eucharist*, pp. 135-136.

ciliated” with God, was the magical power they possessed “in respect of an ende and determined Operation”. Though the angels were obscure as to what purpose this power should serve, they stressed that “euery letter here bringeth furth the Names of God”, and that “there is nothing that commeth or springeth from God, but it is as God, and hath a secret Maiesticall and inexplicable Operation in it”.⁶⁹⁵

The notion that the Adamic language possessed magical powers was a common belief in early modern philosophy, bolstered by the biblical narrative of how Adam had named all things in accordance with their true and essential nature. This narrative implicated the Adamic language in a conceptual “system” that was metaphorically structured around the divine Word: by viewing the prelapsarian language as created according to the principles of divine Wisdom, the *Logos* from which natural things had their essence and nature, its properties were understood and defined in terms of the divine Word. As such, the Adamic language could be attributed a variety of properties which transcended that of being a mere signifier, the function to which language was confined after the Fall and confusion of tongues. Indeed, it could be conceived of as sharing the multiple meanings of the divine Word, that of simultaneously being Reason and Truth, manifested in Scripture and nature, reflected in man’s soul, and containing the creative power of God.⁶⁹⁶ In Dee’s angelic conversations we find that all of these properties were attributed to the Adamic language. Not only was this language capable of yielding perfect knowledge of the things it designated, and of comprising “*the true Doctrine of the Prophets*”, as Dee’s angels put it, thereby laying the foundation for a restitution of Christian faith; it also contained the creative power of God’s Word, the very power from which the universe had sprung forth. By “signifying substantially the thing that is spoken of in the center of his Creator” — that is, by perfectly reflecting and expressing the Word — it was also a means to magic, for “the creatures of God [are] stirred up in themselves, *when they hear the words wherewithal they were nursed and brought forth*”.⁶⁹⁷

In the following chapters we shall see how the *logos* doctrine also provided the metaphysical framework underlying the two other categories of magic discussed in medieval and early modern philosophy:

⁶⁹⁵ Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 361-362.

⁶⁹⁶ This is discussed in detail below, pp. 309-318.

⁶⁹⁷ Dee, *A True & Faithful Relation*, p. 92.

celestial magic, aimed at attracting powers from the heavenly bodies, and natural magic, making use of forces inherent in things residing below the celestial sphere. In contrast to medieval ritual magic, which was to a large extent sanctioned by its reliance on liturgical practices, both natural and celestial magic were theoretically founded and discussed in philosophical rather than theological terms. But whereas this distinction was fairly clear in medieval discussions of magic, it grew increasingly obscure with the appropriation of Neoplatonic and Hermetic materials in the Renaissance. When these materials were amalgamated with medieval notions of magic, the result was not only a syncretistic compound of divergent, and sometimes contestatory, philosophical frameworks; in the Neoplatonic works of for example Proclus and Iamblichus, Renaissance scholars also found conceptions of magic which could be used to legitimize ritual forms of magic in philosophical terms. By providing ritual magic with a philosophical basis, these sources tied natural and celestial magic much closer to ceremonial magic than medieval philosophy had done. To understand how these different forms of magic were interrelated, however, we must first make a brief review of the basic tenets of celestial and natural magic as they appear in Dee's work.

Natural and celestial magic in medieval philosophy

Needless to say, magic in the Renaissance and Middle Ages had nothing to do with the "occult" in the modern sense of the word. It was, however, dependent on a world view in which everything was ascribed occult or "hidden" (Lat. *occultus*) properties; that is, properties and powers that were imperceptible to the human senses. A common example, which Dee also repeated, was the inherent power — or "virtue" (Lat. *virtus*), as it was usually termed — of the magnet to attract iron at a distance, even when solid bodies separated them.⁶⁹⁸ To employ such properties and powers for personal ends was to engage in magic, a discipline Pico della Mirandola defined simply as "the practical part of natural science".⁶⁹⁹

⁶⁹⁸ Dee, *Propaedeumata aphoristica*, XXIII, pp. 132/133.

⁶⁹⁹ Pico della Mirandola, *Conclusiones*, 'Conclusiones Magice numero XXVI secundum opinionem propriam', no. 3, p. 78: "Magia est pars practica scientiae naturalis."

Pico's definition of magic, however, fails to make clear that magic relied on different means depending on which sphere the powers employed by the magician were stemming from. Behind the division of magic into three separate categories — natural, celestial and ritual magic — lay a cosmological scheme whose general outlines were unquestioned: the universe was structured as a hierarchy and divided into three separate spheres, the natural, the celestial and the spiritual. As Agrippa pointed out, these spheres corresponded to three branches of philosophy: natural, mathematical and theological knowledge. Thus, natural magic was described as an art based on the principles of natural philosophy, making use of “various mixtions of natural things”; celestial magic relied on the “rules of the astrologers, and the doctrines of mathematicians” to attract the influences of the celestial rays; whereas “powers of divers intelligencies” could be drawn down by “the sacred ceremonies of religion”.⁷⁰⁰

The division between the natural and celestial spheres in this cosmological scheme was not entirely strict, however. According to Aristotelian metaphysics, the generation, alteration and corruption of natural things were dependent on the hidden virtues of the celestial bodies, and the ultimate cause of all natural changes in elemental bodies was the motion of the heavenly bodies and the influences of the celestial rays. As Dee wrote in his *Mathematicall Praeface*, all natural bodies “are altered, disposed, ordered, pleased, and displeased, by Influentiall working of the *Sunne*, *Mone*, and the other Starres and Planets”.⁷⁰¹ Though Aristotle never dealt with astrology, which was a product of later Hellenistic culture, his metaphysics provided the basis for the subsequent development of astrological theory. In his *Mathematicall Praeface* Dee quoted at length from Aristotle, defining astrology as an “Arte Mathematicall” demonstrating “the operations and effects, of the naturall beames, of light, and secrete influence: of the Sterres and Planets” upon natural bodies. He also referred to his earliest printed work, the *Propaedeumata aphoristica* (1558), in which

⁷⁰⁰ Agrippa, *Three Books Of Occult Philosophy*, I.1, p. 3.

⁷⁰¹ Dee, *Mathematicall Praeface*, sig. b.iiij.^v; Cf. Aristotle, *Meteorologica*, 339a-340a, and *De generatione et corruptione*, 336a-336b. These notions are also comprehensively stated in Dee's annotated copy of Plinius Secundus, *De mundi historia* (London, British Library, shelfmark C.107.d.22), fol. 75^{r-v}, which he acquired as early as 1550.

he claimed to have “Mathematically furnished vp the whole Method” of this art.⁷⁰²

Compared to Dee’s overtly occult writings, the *Propaedeumata aphoristica de praestantioribus quibusdam naturae virtutibus* — “An aphoristic introduction concerning certain outstanding virtues of nature” — is a rather conventional work. Like the later *Monas hieroglyphica* it is written in the form of brief assertions or aphorisms, but the tone is less enigmatic and the content derived from a more traditional philosophical framework. As Nicholas Clulee has stressed, the key ideas of the work are drawn from medieval sources, above all from the works of al-Kindi and Roger Bacon.⁷⁰³ The *De radiis stellarum* of al-Kindi (d. 873) was a well-known work on the nature of celestial influences which Dee acquired in 1556.⁷⁰⁴ Though the work contains elements which would be hard to reconcile with Christian doctrine, its basic tenets — that the rays emitted by the stars influence all terrestrial things and that all terrestrial events are dependent on celestial harmonies — were consistent with Aristotelian philosophy. The Neoplatonic influence on Arabic Aristotelianism, however, led al-Kindi to elaborate this metaphysics in a significant way. Not only did the celestial bodies emit rays of both sensible and occult character; since the natural sphere was an *exemplum* of the celestial realm, in which each entity corresponded to a model in the supralunar sphere, all entities, even earthly ones, emitted rays and occult influences in the manner of stars, impressing their power upon surrounding objects.⁷⁰⁵ Thus, everything that existed in actuality in the universe emitted rays in every direction, filling the whole world and making its power present at every place in the universe.⁷⁰⁶ In

⁷⁰² Dee, *Mathematicall Praeface*, sig. b.iii.^{r-v}.

⁷⁰³ Clulee, “Astrology, Magic, and Optics: Facets of John Dee’s Early Natural Philosophy”; and Clulee, *John Dee’s Natural Philosophy*, pp. 39-73.

⁷⁰⁴ Roberts and Watson (eds.), *John Dee’s Library Catalogue*, nos. M37, CM35. The first to pay attention to al-Kindi’s importance was Calder, *John Dee Studied as an English Neoplatonist*, vol. 1, pp. 515-522.

⁷⁰⁵ al-Kindi, *De radiis*, p. 224: “Age ergo, cum mundus elementaris sit exemplum mundi siderei ita quod quilibet res in ipso contenta eiusdem speciem contineat, manifestum est quod omnis res huius mundi, sive sit substantia sive accidens, radios facit suo modo ad instar siderum; alioquin figuram mundi siderei ad plenus non haberet.”

⁷⁰⁶ al-Kindi, *De radiis*, p. 224: “Hoc ergo pro vero assumentes dicimus quod omne quod actualem habet existentiam in mundo elementorum radios emittit in omnem partem, qui totum mundum elementarem replent suo modo. Unde est quod omnis

Propaedeumata aphoristica Dee rendered al-Kindi's formulation of this notion virtually verbatim, stating that "every place in the universe contains rays of all things that have actual existence".⁷⁰⁷ In Dee's view, the universe was a vast network of forces, in which every object was under the influence of, as well as impressing its own influence upon, the entire world.

In al-Kindi's treatise, however, this theory was not based on mathematical theory, nor were the rays treated according to mathematical principles. To find a mathematical elaboration of al-Kindi's theory of the kind presented by Dee we have to turn to the works of Roger Bacon, the medieval scholar whose blood he claimed to share. In a number of works, Bacon developed the theory that the rays emitted by all objects could be treated according to the geometrical laws of optics. Visible light served as the model for how the propagation of all radiation, including occult influences, was understood. Central to Bacon's theory was his conception of the "multiplication of species", which implied that all kinds of radiation were propagated through a kind of self-reproduction in which the essential form, or soul, of an object multiplied itself through the whole medium. The "rays" emitted by an object were not material emanations, but a peculiar condition of the medium, impressed upon it by the source of the radiation. This condition or quality embodied in the medium was, as Bacon put it, "a likeness, image [or] species" of the essential and non-material *forma* of the object. Thus, rather than "emitting" something in the proper sense of the term, every object produced a continuous change in the medium surrounding it, spreading species — "similitudes" or replicas of the essence of the object — in all directions. As Bacon stressed, the term "ray" signified neither an object nor a state, but species fashioned into a straight line by extension; that is, a mathematical construct based on the geometrical principles of optics.⁷⁰⁸

But a species was not only the similitude of the source object; it was also its active force and power — its *virtus*. Since species were emitted by all substances, both corporeal and spiritual, they were the

locus huius mundi radios continet omnium rerum in eo actu existentium..."

⁷⁰⁷ Dee, *Propaedeumata aphoristica*, IIII, pp. 122/123.

⁷⁰⁸ See especially Bacon, *The Opus Majus*, I, pp. 131-147; and, for a fuller account, his *De multiplicatione specierum*, reprinted with English translation in Lindberg, *Roger Bacon's Philosophy of Nature*. Both of these works are listed in Dee's library catalogue of 1556: Roberts and Watson (eds.), *John Dee's Library Catalogue*, nos. CM25 and CM44.

means by which all “occult” powers affected other bodies and the immediate cause of such phenomena as contagious diseases. Harmful species, Bacon wrote, were emitted from “corrupt and unclean places”, from “the leprous and the infirm”, as well as from menstruating women, a notion substantiated by the commonplace observation that if a menstruating woman “looks into a mirror, a bloody cloud appears in the mirror from the force of the menstruation staining it”. We should thus be careful not to expose ourselves to harmful species, Bacon warned, adding that he once seen “a physician made blind while he was endeavouring to cure a patient with a disease of the eyes, because of the multiplication of the species coming from the eyes of the patient”.⁷⁰⁹

The notion of species, emitted by every substance and carrying its inner force and power, also provided Bacon with a theoretical basis for magic. In the *Opus majus*, as well as in the shorter *Epistola de secretis operibus artis et naturae, et de nullitate magiae*, Bacon exhaustively discussed the magical powers of words, characters and images as a function of the propagation of species. Spoken words, he claimed, take shape within our body, brought forth “by the thought and desires of the mind”, and are issued by heat and the vocal organs. In the open passages of the body in which the words are generated, they are subject to “a great efflux of such spirits, heat, vapours, virtues, and *Species*, as are made by the soul and heart”. Having been exposed to these influences from the body and soul of the speaker, the words retain some of their effective virtues, thereby becoming vehicles of magical powers. As he put it, “the bare generation and prolation of words ioyned with desire and intention [of the soul] are considerable in natural operations”.⁷¹⁰

Bacon’s theory was in glaring contrast to the more orthodox view formulated by Aquinas, who forcefully rejected the notion that the speaker was capable of infusing words with magical powers. When discussing “whence the works of magicians derive their efficacy” in his *Summa contra gentiles*, Aquinas asserted that “words, in so far as they signify something, have no power except as derived from

⁷⁰⁹ Bacon, *The Opus Majus*, I, pp. 163-164.

⁷¹⁰ I am quoting from the first English translation of Bacon’s *Epistola*, entitled *Frier Bacon, his Discovery of the Miracles of Art, Nature and Magic*, p. 14. For the original Latin, see *Epistola* (ed. Brewer), p. 531. For a similar account, see also *The Opus Majus*, I, pp. 412-414.

some intellect". But this efficacy could not possibly derive from the speaker since the nature of the human intellect was such that "its knowledge is caused by things, rather than that it is able by its mere thought to cause things". In so far as words could produce magical acts, they did so solely by signifying to other intellects — that is, demonic intellects.⁷¹¹

In Bacon's view, by contrast, words were not merely signs whose magical efficacy was solely dependent upon their ability to signify. Instead his account foreshadows a conception of language that would rise into prominence in the Renaissance: the notion of words as natural entities, having an ontological status equal to all created things and possessing an equal power to act upon the world. Invoking a metaphor that recurs frequently in later discussions, Bacon likens man's uttering of words to the birth of a child: "just as a child born" receives and retains the impression of the celestial forces, so the "forces of the stars are received and retained" in the words brought forth by man, and through these forces the words "can act on the things of this world". The greatest power, Bacon claimed, is possessed by words in which the forces from the heavens are combined and in harmony with the forces and influences of the speaker's rational soul. Such is the power of these words that "our bodies are cured, venomous animals are driven off, all brutes are summoned to one's hand, likewise snakes from their caverns and fishes from the depth of the waters".⁷¹²

These views were to a large extent derived from al-Kindi, who stressed that spoken words (*voces*) emit rays which act on the physical world and that words, "just like herbs and other things", were assigned powers by the celestial harmonies.⁷¹³ Bacon was careful, however, to avoid or downplay the elements in *De radiis* that were too glaringly in opposition to Christian doctrine, shunning al-Kindi's notions of sacrifices and divine names, and stressing the potential

⁷¹¹ Aquinas, *Summa contra gentiles*, III.2, chs. 104-106; translated in Kors and Peters (eds.), *Witchcraft in Europe 1100-1700: A Documentary History*, pp. 53-62; for the quoted passages, see p. 57.

⁷¹² Bacon, *The Opus Majus*, I, , pp. 410-412.

⁷¹³ al-Kindi, *De radiis*, p. 233: "...voces in actum producte radios faciunt sicut et alie res actuales, et suis radiis operantur in mundo elementorum sicut et alia individua. Et cum innumerabiles sint differentie vocum, unaqueque actualiter prolata suum habet effectum in rebus aliis elementaribus, differentem ab effectu aliorum, et sortite sunt voces suum effectum a celesti armonia, sicut et herbe et res alie..." See also p. 236.

danger of characters and images. But however dangerous they could be, Bacon could not deny the magical efficacy of characters composed in the form “of letters, invented to contain the sense of some speech or prayer”, or “made according to the face of the Heavens”.⁷¹⁴

Renaissance magic and Dee's *Propaedeumata aphoristica*

Given Dee's extensive reliance on al-Kindi and Bacon when describing the influence of celestial rays, the propagation of species and their mathematical treatment, we can safely conclude that he was familiar with their notions of magic. Indeed, in *De radiis*, also known as the *Theoretica artium magicarum*, the discussion of how rays were emitted by all things merely formed a necessary background to al-Kindi's more exhaustive treatment of magical words, figures and images. The fact that Dee annotated Bacon's *Epistola* testifies to his interest in Bacon's views of magic, and a year before the publication of *Propaedeumata aphoristica* he wrote a treatise in defence of him, intended to prove that Bacon “did nothing by the aid of demons”, but that all his seemingly miraculous feats were “accomplished naturally and by ways permitted to a Christian man” — a claim implying that he was intimately familiar with Bacon's notions of magic at the time.⁷¹⁵ Dee's early interest in medieval natural magic is also reflected in the annotations he made in other works. In April 1557 he acquired the collected works of Arnaldus de Villanova (1240-1315), in which the sections treating magic have been heavily marked and annotated. For instance, next to a paragraph describing how all things, whether natural or artificial, receive their properties from the celestial bodies, he noted “Imagines” twice and emphasized the magical aspects of this notion.⁷¹⁶

⁷¹⁴ Bacon, *Frier Bacon, his Discovery of the Miracles of Art, Nature and Magic*, p. 7; for the original Latin, see *Epistola* (ed. Brewer), pp. 526-527.

⁷¹⁵ This is the treatise listed in *Propaedeumata aphoristica*, pp. 116/117: *Speculum unitatis: sive Apologia pro Fratre Rogerio Bachone Anglo, in quo docetur, nihil illum per Daemoniorum auxilia fecisse, sed Philosophum fuisse maximum: naturaliterque, & modis homini Christiano licitis, maximas fecisse res: quas, indoctum solet vulgus in Daemoniorum referre facinora.*

⁷¹⁶ Dee's copy is now London, Royal College of Physicians, shelfmark D 89/6, 8c, dated “1557 Apriliis 20 Londini” on the title page. For this passage, see fol. 141^r: “...sed accidentaliter ei subvenit in hora generationis ex fortitudine causarum concurrentium, utpote forti aspectu coelestium corporum, sive hora generationis, sive

But it is also clear that a one-sided focus on Dee's medieval sources cannot give us an accurate understanding of his notions of magic. Although several of Dee's aphorisms in *Propaedeumata aphoristica* concern magic, explicitly as well as implicitly, the views he proposes are not medieval in character, but a compound of Aristotelian, scholastic and, not least importantly, Neoplatonic notions — a feature which Clulee has forcefully downplayed in his insistence on Dee's reliance on medieval optics in this early work.⁷¹⁷

The Neoplatonic influences on Dee's notions in *Propaedeumata aphoristica* make themselves felt in several ways, not least in the very language he uses when presenting his ideas. For instance, having quoted al-Kindi virtually verbatim when explaining how the species emitted by all things "fill the whole universe", he shifts to a decidedly Neoplatonic imagery, stating that

The entire universe is like a lyre tuned by some excellent artificer, whose strings are separate species of the universal whole. Anyone who knew how to touch these dextrously and make them vibrate would draw forth marvellous harmonies.⁷¹⁸

In the following aphorism he elaborates the metaphor, stating that just as a lyre is an "arrangement of harmonious and disharmonious tones" capable of expressing "a very sweet harmony", so the different parts of the universe express "a most close sympathy [*Sympathia*]" for

hora casus principii seminalis in agro naturae, seu hora nativitatis, seu hora, qua res sui esse perfectionem accipit, ut in figuris artificialibus: in omni enim hora influunt a partibus orbis aliae & aliae virtutis generalibus, secundum quod requirit figura orbis determinata per horoscopus [...] Similiter animalibus & partibus animalium, quemadmodum accidit duobus gemellis in Austria, cum oppositis lateribus aperire clausuras, & simili modo de his, que artificialiter figurantur: omne enim quod sub orbe per artem vel naturam producitur, aliquam proprietatem ab orbe recipit patiendi ab alio, vel agendi in aliud, quamvis illa sit nobis ignota" (Dee's emphasis).

⁷¹⁷ It is true, as Clulee points out, that many of the overtly Neoplatonic and occult notions in *Propaedeumata aphoristica* were added in the later edition, published in 1568. But he also fails to properly acknowledge the presence of these notions in the original edition, suppressing the syncretistic character of Dee's views in favour of a "naturalistic" interpretation of *Propaedeumata aphoristica* which brings Dee's views closer to the original notions of Bacon and al-Kindi than a careful reading warrants.

⁷¹⁸ Dee, *Propaedeumata aphoristica*, XI, pp. 126/127; see also aphor. LXXV, pp. 162/163.

each other, while other parts express “a harsh dissonance and a striking antipathy [*Antipathia*]”.⁷¹⁹

While Dee’s imagery suggests a familiarity with Neoplatonic accounts, the notion of sympathies and antipathies — that is, the inherent tendency of particular things to attract or repel each other — was virtually omnipresent in both medieval and early modern science. A typical account is given in the *Magia naturalis* of Giambattista della Porta (1535-1615), who remarked on the “deadly hatred, and open enmity betwixt Coleworts and the Vine”, evident from the fact that the vine never grows near to coleworts. By extension, this meant that the colewort was also useful as “a remedy against drunkennesse”, whereas the cyclamen, a herb with an inherent sympathy for the vine, could “encrease drunkennesse”. Similarly, the cane and the fern had an inherent antipathy toward each other, and for this reason “a Fern root powned, doth loose and shake out the darts from a wounded body, that was shot or cast out of Canes”. Between the bull and the fig tree, by contrast, there was a sympathetic relationship, so that a “wilde Bull tyed to a Fig-tree, waxeth tame and gentle”. Man’s instinctive fear of serpents and wolves was ascribed to our natural antipathy to these species, and in a similar manner the “wolf is afraid of the Urchin; thence, if we wash our mouths and throats with Urchines blood, it will make our voice shrill, though before it were hoarse and dull like a Wolves voice”.⁷²⁰

The doctrine of sympathies was rooted in the ancient dictum that “like attracts like”, a notion that had an important role in both Plato’s and Aristotle’s works. According to William of Auvergne, bishop of Paris in the thirteenth century, Aristotle had asserted that “every operation of nature is by similitude”, and in *De radiis* al-Kindi stated in passing that all things are connected to each other “by relation of similitude or dissimilitude”.⁷²¹ It is therefore not surprising that Dee associated the propagation of species — quite literally the

⁷¹⁹ Dee, *Propaedeumata aphoristica*, XII, pp. 126/127.

⁷²⁰ della Porta, *Natural Magick*, pp. 8-9.

⁷²¹ al-Kindi, *De radiis*, p. 229: “...una res ad omnem aliam actu existentem relatione similitudinis vel dissimilitudinis colligatur...” William of Auvergne is quoted from Hansen, “Science and Magic”, p. 502n20: “...Aristoteles omnem operationem naturae dicit per similitudinem esse”. For a medieval account of sympathetic magic, see the *Book of Marvels*, a late thirteenth-century work falsely attributed to Albertus, in *The Book of Secrets of Albertus Magnus*, especially pp. 74-76.

“similitudes” of things⁷²² — with the doctrine of sympathies. However, by invoking the metaphor of a lyre to describe this interconnectedness of things, Dee also revealed his familiarity with Neoplatonic philosophy. This simile, stemming from Plotinus’ *Enneads*, was one of the most recurrent tropes in Neoplatonic accounts of magic, repeated and elaborated by late ancient as well as early modern philosophers.⁷²³ But more important than its provenance is the context in which it was used: in the texts familiar to Dee the metaphor of the lyre was invoked to describe a form of magic that differs considerably from the one we find in al-Kindi’s and Bacon’s works. A typical example can be found in *De insomniis* of Synesius, where the simile is used to describe the “concord of the world” which enables the magician to use divine tokens — by Ficino rendered as *illices*, literally “baits” — to attract the powers of other things in the universe. For “just as all things in the world are signified [*significantur*] by one another, so they are reciprocally affected”. Thus, by understanding how the different parts of the universe are related, the wise man can become a magician — “using voices, substances and figures near at hand as tokens [*pignora*] of things far away, he attracts one thing by means of another”.⁷²⁴ In his copy of this work, Dee has noted “*Illices Magorum*” — the “tokens of the magicians” — in the margin, and

⁷²² In *De multiplicatione specierum* Bacon argues that terms such as *lumen*, *idolum*, *phantasmata*, *simulacrum*, *forma*, *intentio*, *similitudo*, *umbra*, *virtus*, *impressio*, *passio* are merely synonyms of the word “species”, since they all denote some form of likeness or resemblance; in Lindberg (ed.), *Roger Bacon’s Philosophy of Nature*, pp. 2/3-6/7.

⁷²³ For Plotinus’ use of this simile, see especially *Enneads*, 4.4.41, pp. 264/265. For some Renaissance examples, see Ficino, *Three Books on Life*, III.17, pp. 330/331-332/333; Agrippa, *Three Books on Occult Philosophy*, I.37, p. 111; della Porta, *Natural Magick*, p. 8.

⁷²⁴ Dee’s copy of *De insomniis* is included in Iamblichus, *Index eorum, quae hoc in libro habentur*, a collection of Neoplatonic texts translated by Ficino which Dee owned at least as early as 1557; Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage, fol. 44^r: “Cum enim universum hoc sibi met sit compatiens atque conspirans, oportet partes congruenter inter se convenire, utpote quae unius aequae totius sint partes. Consideratione vero dignum est, utrum huc tendant *illices*, *vel motacillae* magorum. Mundana enim sicut ex se vicissim *significantur*, sic invicem permulcentur. Iam vero sapiens est, qui *mundanarum partium cognitionem tenet*; trahit enim per aliud, aliud praesentia tenens, velut *pignora* quaedam procul absentium, *voces* videlicet, & *materias*, atque *figuras*...” (Dee’s emphasis).

where Synesius in the following paragraph describes this metaphysics of magic in terms of a lyre, referring to how these *illices* can be used by a magician to entice powers from other parts of the universe just like a string on a lyre sets other strings in vibration when it is plucked, Dee notes that he has himself stated the very same thing in his *Propaedeumata aphoristica* — “Sic nos scripsimus ... [in] aphoris. 12”.⁷²⁵

It is impossible to say when this note was made, and it is quite possible that Dee read the *De insomniis* several years after the completion of *Propaedeumata aphoristica*. Yet the fact that he viewed his own conceptions as consistent with Synesius’ account suggests that a disproportionate focus on his reliance on medieval optical theory will give us a lopsided picture of his views of magic. The Neoplatonic magic set forth in *De insomniis* contains several features which sets it apart from the magic of al-Kindi and Bacon, a discrepancy that stands out clearly in Synesius usage of the terms “sign” and “signification”. In Neoplatonic philosophy, the magical efficacy of a sign was not dependent upon its capacity to signify a concept to another intellect, as Aquinas asserted. Nor was it, as Bacon proposed, conditioned by its ability to embody the powers infused by the stellar rays, and, in the case of spoken words, by the speaker’s soul. Instead, natural entities in themselves constituted “signs” or “tokens”, which by “signifying” each other manifested their interconnectedness and power to affect each other. If al-Kindi and Bacon treated spoken words as natural things, capable of acting on physical reality, Neoplatonists treated the natural world as a vast network of cross-referring signs, as a language comprising the entire universe and linking every part into a unified whole.

Portrayed in this way, the Neoplatonic world view inevitably brings Foucault’s dazzling account of the Renaissance *épistémè* to mind. But if Foucault succeeded in abstracting a feature which did play an important role in Renaissance magic, he also treated the emanationist metaphysics bolstering it as an irrelevant “surface ex-

⁷²⁵ Synesius, *Ibid.*: “Est enim in partibus sicut concordia quaedam, sic insuper & discordia; nam mundus hic non est simpliciter unum, sed ex pluribus unum, *suntque in eo partes partibus consentientes interim, atque dissidentes; ita tamen ut earum dissensio ad consensionem universi conducatur, sicut lyra constitutio quaedam est tonorum dissonantium, atque consonantium*. Ipsum vero ex oppositis unum ad harmoniam, & lyram pertinet, atque mundum.” (Dee’s emphasis).

pression” of an underlying structure.⁷²⁶ This metaphysics was formulated in slightly different terms in the works of Plotinus, Iamblichus, Synesius and Proclus, but despite their differences they all described the universe as hierarchically structured, emanating from an unified and undivided godhead. Thus, every natural entity was the “image” or “expression” of a superior cause, and part of an unbroken chain of interrelated entities stretching from supreme godhead to inferior substances. As parts of such chains, terrestrial objects not only shared properties with superior entities by virtue of their “likeness” to them; this very “likeness” also implied a causal relationship. As Proclus formulated it, all things that proceed from a divine principle “are in their very being cognate and sympathetic with their causes” since “it is likeness which generates the product out of the producer”. By being “like” its cause, every entity “both remains in the producing cause and proceeds from it”. Consequently, the world consisted of continuous chains of causally related entities, linked to each other by their very similarity.⁷²⁷

In this metaphysical system, similarity between separate things not only manifested their sympathetic connection to each other, but likeness was in itself the very property that linked them together, and could thereby provide a basis for magical manipulation of natural and celestial forces. Quoting verbatim from Proclus’ *De sacrificio et magia*, Giambattista della Porta explained how “earthly things” might be seen in “heavenly” ones, “though not properly, but in their causes, and after a heavenly sort; likewise heavenly things in earthly, but yet after an earthly sort”. By considering this “affinity and bond of Nature, wherewith all natural things are linked each to other”, ancient magicians knew how to “apply and lay some earthly things to some heavenly”, thereby bringing down “the celestial forces into these inferiours, by reason of their likeness one with the other; for the very likenesse of one thing to another, is a sufficient bond to link them together”.⁷²⁸

⁷²⁶ For a discussion of Foucault’s account, see my “Introduction” above.

⁷²⁷ Proclus, *Elements of Theology*, props. 28-30, pp. 32/33-34/35.

⁷²⁸ della Porta, *Natural Magick*, pp. 14-15. Ficino’s Latin translation of this passage, which was della Porta’s source, reads: “Agnoverunt enim et in infimis suprema et in supremis infima: in coelo quidem terrena secundum causam modoque coelesti; in terrena vero coelestia sed modo terreno. [...] Quae quidem veteres contemplati, aliis coelestium alia terrenorum adhibuerunt, unde divinas virtutes in locum inferiorem ob quandam similitudinem deduxerunt. Nempe similitudo ipsa sufficiens causa est

In describing the sympathetic relationship between things as dependent on similitude, Neoplatonic philosophers elaborated on a notion already present in Plato's and Aristotle's works. But they also gave it a far more important role, turning similitude into a means by which man could magically manipulate natural forces. As Synesius wrote, magicians could use not only natural entities but also artificially constructed representations such as "voices, substances and figures" as mimetic means to tap the powers of the universe.

One of the most famous Renaissance works devoted to this kind of imitative magic is Marsilio Ficino's *De vita coelitus comparanda*, "On obtaining life from the heavens". Published in 1489 as the third part of his *De vita libri tres*, it gives a lengthy account of how images, words, music and songs can be used to draw forces from the celestial bodies. Ficino, anxious to avoid accusations of illicit idolatry, stresses in the text that this was not accomplished by "worshipping the stars", but by "imitating them" and thereby trying to "capture" their "natural influence[s]".⁷²⁹ In his work Ficino drew upon a wide variety of sources, including the Neoplatonic texts by Iamblichus, Proclus and Synesius which he had himself translated into Latin, as well as medieval authorities like al-Kindi, Albertus Magnus and Thomas Aquinas.⁷³⁰ Despite its syncretistic character, however, the *De vita coelitus comparanda* was written as a commentary on a specific section of Plotinus' *Enneads*. This section — *Ennead* 4.3.11 — was one of the most controversial parts of Plotinus' work, since it alluded to a kind

ad res singulas invicem vinciendas." I am quoting here from the appendix to Brian Copenhaver's essay "Hermes Trismegistus, Proclus, and the Question of a Philosophy of Magic in the Renaissance", pp. 102-110, which includes the original Greek version of *De sacrificio*, as well as an English translation and Ficino's Latin version. Dee's copy of *De sacrificio*, included in Iamblichus, *Index eorum* (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage) contains no annotations.

⁷²⁹ Ficino, *Three Books on Life*, III.21, pp. 356/357.

⁷³⁰ Walker's classic account of Ficino's magic theory (Walker, *Spiritual and Demonic Magic*, pp. 3-59) has to a large extent been superseded by Copenhaver's more careful analyses, which emphasize the syncretistic character of Ficino's thought. See Copenhaver's numerous articles on the subject: "Scholastic Philosophy and Renaissance Magic in the *De Vita* of Marsilio Ficino"; "Hermes Trismegistus, Proclus, and the Question of a Philosophy of Magic in the Renaissance"; "Iamblichus, Synesius and the Chaldaean Oracles in Marsilio Ficino's *De Vita Libri Tres*: Hermetic Magic or Neoplatonic Magic?"; and "Renaissance Magic and Neoplatonic Philosophy: 'Ennead' 4.3-5 in Ficino's '*De Vita Coelitus Comparanda*'".

of magical statues which ancient magicians had used to attract and secure the presence of divine beings. Ficino associated Plotinus' remark with a similar statement in the Latin *Asclepius*, attributed to Hermes Trismegistos, which had incurred the disapproval of a number of Christian authorities.⁷³¹ From a Christian point of view, the idea of drawing divinities into earthen statues had a perilous tone of idolatry and demonic magic about it, and Ficino was careful to emphasize its potential moral dangers. But it is also clear that he tried to legitimize this ancient magic, if yet ambiguously so, by stressing that the divinities involved in this account were "not celestial, let alone [of] any higher [kind]". In fact, he claimed, these divinities were not "separate from matter", but "present all along in the matter" used to fabricate the statues.⁷³²

What Ficino did was to interpret this ancient statue-magic not as demonic magic, but as sympathetic, and thus licit, magic, having its basis in the metaphysics outlined in the preceding chapters of Plotinus' *Enneads*.⁷³³ This metaphysics was an intricate structure built around the concept of *Logos* and its interrelated meanings. In Plotinus' philosophy, the term *logos* denoted both the divine "reason" and the formative "cause" behind the universe, the immaterial Ideas structuring the material cosmos and bringing it into being. But *logos* also meant "expression" in the sense of a diverse and imperfect manifestation of the unified intellectuality present in the divine Mind. Such an "expression", *logos*, of the Ideas in the divine Mind was the World-Soul, an omnipresent vital force, making the universe a living being. This World-Soul operated as a kind of medium between the divine Mind and nature by communicating "reason" — *logos* — to the material world in the form of an "image of the reason within itself".

This communication of divine reason to the material world was accomplished through the agency of what Plotinus termed *logoi spermatikoi*, translated by Ficino as *seminales rationes*, "seminal reasons". The concept of seminal reasons was not unknown in medieval philosophy, and in the works of Augustine, Bonaventura and Vincent

⁷³¹ Plotinus, *Enneads*, 4.3.11, pp. 70/71-72/73; for the passage in *Asclepius*, see *Hermetica*, p. 81. For Ficino's discussion, see *Three Books on Life*, III.26, pp. 388/389-392-393. In Dee's copy of the *Asclepius* the relevant passage has been partly underlined, but not otherwise marked: Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage, fol. 130^r.

⁷³² Ficino, *Three Books on Life*, III.26, pp. 388/389.

⁷³³ Plotinus, *Enneads*, 4.3.1-11, pp. 32/33-72/73.

of Beauvais it is ascribed a minor role as “germinal forms”, planted in matter by God and able to actualize their latent potentialities in the course of time. In Aquinas’ philosophy the concept disappears altogether, supplanted by his notion of the potency of matter. With Ficino’s appropriation of Plotinus, however, the concept of seminal reasons re-emerged as a key notion in the conceptualization of magic. As he phrased it in *De vita coelitus comparanda*, the World-Soul “possesses by divine power precisely as many seminal reasons of things as there are Ideas in the Divine Mind” and through these seminal reasons the World-Soul “fashions the same number of species in matter”.⁷³⁴ Every natural entity of a particular kind was an image of a seminal reason in the World-Soul, which in turn was an image of an Idea in the divine Mind. But more importantly, by acting as conduits of divine power, the seminal reasons causally linked species or forms in matter to Ideas in the divine Mind. As Ficino wrote, “every single species corresponds through its own seminal reason to its own Idea and oftentimes through this reason it can easily receive something from the Idea — since indeed it was made through the reason of the Idea”. Thus, the seminal reasons provided a means by which man could attract divine forces magically: by manipulating “material forms” it was possible to “allure” the World-Soul and “draw a particular gift from the Idea, through the seminal reason of the Soul”, for the World-Soul “has created baits of this kind suitable to herself, to be allured thereby”. Ficino added that such “baits”, making it possible to draw powers from the divine Mind, had been termed *illices* and *illecebrae* by Zoroaster and Synesius, thereby emphasizing that he considered these authors’ differing accounts of magic to be consistent with each other.⁷³⁵

But Ficino also relied heavily on scholastic sources in *De vita*. This is especially evident in the important role he attributed to the celestial constellations in this metaphysical scheme, a role that owed more to his reading of Thomas Aquinas and Albertus Magnus than Plotinus. In Ficino’s syncretistic metaphysics, the figures of the stars were created by the World-Soul from the seminal reasons, and these celestial figures contained “all the species of things below”. The heavenly constellations were an intermediary level in the great chain of

⁷³⁴ Ficino, *Three Books on Life*, III.1, pp. 242/243.

⁷³⁵ Ficino, *Three Books on Life*, III.1, pp. 242/243–244/245; see also III.26, pp. 390/391.

being, relaying divine forces to the earth and producing substantial forms in matter through the seminal reasons.⁷³⁶ Ficino's use of the term "figures" — *figurae* — when describing the heavenly constellations was deliberate: it was the constellations as represented in astrological tradition that brought forth and ordered the forms in matter. Thus, it was also these figures that could be imitated to draw down the celestial forces, for the "images of things here below are subject to the celestial images", which are "as it were exemplars of things below". Hence, the "ancient wise men used to manufacture certain images" to capture the influences of the stars. For instance, by making an image in the likeness of a scorpion when the moon enters the constellation *Scorpio*, it is possible to cure a person who has been stung by a real scorpion.⁷³⁷

This kind of image magic figures prominently in medieval discussions of astrology. In his *Speculum astronomiae* Albertus Magnus forcefully rejected magic images used in combination with "suffumigations and invocations", classifying them as "abominable" and the "worst [kind of] idolatry". The same was true of images made in the form of "characters which are to be exorcized by certain names", such as the famous rings of Solomon. However, image magic which did not rely on suffumigations, invocations or inscribed characters could according to Albertus be viewed as licit and religiously sound, since such images obtained their virtue "solely from the celestial figure[s]".⁷³⁸ In *De mineralibus* he gave a lengthy account of such figures, describing how an image in the likeness of a lion (i.e. the constellation *Leo*) or a ram (*Sagittarius*) can cure fever, dropsy and paralysis. Likewise, an image of Mars holding a lance in his hand "is said to make men spirited and warlike", whereas a figure of a scorpion is said to cure hot dry fevers, but also having the unfortunate side-effect of producing "an inclination towards lying and unrighteousness and inconstancy and licentiousness".⁷³⁹

Ficino was well versed in this medieval tradition and refers repeatedly to Albertus' views on images in *De vita*.⁷⁴⁰ But by fusing

⁷³⁶ Ficino, *Three Books on Life*, III.1, pp. 244/245; for a careful analysis of Ficino's reliance on scholastic philosophy, see Copenhaver, "Scholastic Philosophy and Renaissance Magic in the *De Vita* of Marsilio Ficino".

⁷³⁷ Ficino, *Three Books on Life*, III.13, pp. 304/305.

⁷³⁸ Albertus Magnus, *Speculum astronomiae*, XI, pp. 240/241-250-251.

⁷³⁹ Albertus Magnus, *Book of Minerals*, II.iii.5, pp. 140-145.

⁷⁴⁰ Ficino, *Three Books on Life*, III.12, 18, 25, pp. 304/305, 340/341, 380/381.

scholastic conceptions with Neoplatonic notions of magic, Ficino could also legitimize magic techniques which from a scholastic perspective had to be categorized as decidedly demonic in character. Aquinas' argument that spoken words were only efficacious in magic when they applied to demonic intellects was equally valid for written language, and while he had been willing to approve of amulets constructed in the form of figures (*figurae*), he had forcefully condemned talismans inscribed with letters (*litterae*) and characters (*characteres*). These, he argued, were artificial signs (*signa*) whose magical powers were dependent on their intellectual content, not on their natural properties. Ficino's account of magical talismans is riddled with ambiguities, as he was well aware of Aquinas' views and anxious not to challenge his authority, and he carefully avoids open disagreement while simultaneously crossing the boundaries of what Aquinas viewed as licit magic.⁷⁴¹

This is particularly evident in a chapter devoted to "the power of words and song", in which Ficino without hesitation attributes magical properties to both spoken and sung words.⁷⁴² In contrast to Aquinas, however, Ficino describes the magical efficacy of words as a result of their *mimetic* properties; that is, their capacity to bear meanings (*significationes*) by means of which the celestial bodies can be imitated. Pointing out that song "is a most powerful imitator of all things" since it combines music with words, he instructs the reader to inquire what powers and effects a particular star or constellation has, and then to "insert these into the meaning of our words [in the song], so as to detest what they remove and to approve what they bring".⁷⁴³ In effect, Ficino treats the intellectual content of words, their meaning, as a mimetic property by means of which the powers of the celestial bodies can be attracted. Ultimately — though he never says so explicitly — it is the significance of the word, rather than the uttered sound bearing it, that participates in a web of natural relationships linking heaven to earth.

Ficino's account lucidly illustrates how the importance attributed to "likeness" and "imitation" in Neoplatonic magic threatened to break down the distinctions that gave scholastic views of magic

⁷⁴¹ Copenhaver, "Scholastic Philosophy and Renaissance Magic in the *De Vita* of Marsilio Ficino".

⁷⁴² Ficino, *Three Books on Life*, III.21, pp. 354/355-362/363.

⁷⁴³ Ficino, *Three Books on Life*, III.21, pp. 356/357-358/359.

their conceptual rigour. Since likeness and similitude could take so many forms and since “the very likeness of one thing to another is a sufficient bond to link them together”, as Proclus had written, the range of licit techniques for magical manipulation threatened to grow unimpededly. The fact that it did not do this — Renaissance magic was, after all, not governed by a Foucauldian *épistémè* based on the principle of resemblance — was largely due to the important role that scholastic philosophy and Christian tradition still played in Renaissance magic. Whereas Plotinus had treated all magic as natural and sympathetic, later Neoplatonists and scholastics could not possibly avoid the demonic and potentially dangerous aspects of magic. Nor could Renaissance scholars disregard the intricacies of scholastic philosophy. What the revival of Neoplatonic and Hermetic materials in the Renaissance offered was not a “new” form of magic, rescued from ancient sources, but a means to widen the range of licit magical practices within the framework already set up by medieval scholasticism.

How much of these Neoplatonic notions Dee absorbed is difficult to ascertain. Though he owned Ficino’s *De vita* by the time he wrote *Propaedeumata aphoristica*, his copy contains few annotations and does not seem to have aroused Dee’s enthusiasm to the extent that some other works on magic did.⁷⁴⁴ His copy of Plotinus’ *Enneads*, on the other hand, is heavily annotated, especially in Ficino’s commentaries on the chapters discussing magic, but this work is not listed in the library catalogue he made the previous year and it was probably acquired at a later date.⁷⁴⁵ Yet he uses a decidedly Plotinian language in *Propaedeumata aphoristica* when describing the metaphysical basis

⁷⁴⁴ Dee’s copy of *De vita coelitus comparanda* is included in Iamblichus, *Index eorum* (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage); the notes occur in chapter 15, fol. 160^r. In a recent essay György E. Szönyi argues sensibly for a Ficinian influence on Dee’s *Monas hieroglyphica*, but given Dee’s few annotations in *De vita* it is difficult to corroborate this suggestion; see Szönyi, “Ficino’s Talismanic Magic and John Dee’s Hieroglyphic Monad”.

⁷⁴⁵ Dee’s copy of Plotinus is now at Royal College of Physicians, shelfmark D 124/5, 17c. The date he acquired it has been partly bleached out, but “[jul]ij 14 Londini” is still legible. *Enneads* 4.3.1-11, which describes the underlying metaphysics of Plotinus, contain no underlinings or annotations, neither in the original text nor in Ficino’s commentaries. *Enneads* 4.4.30-45, however, in which the magical employment of natural powers is discussed, are heavily marked and underlined, especially in Ficino’s commentaries.

of magic. In his third aphorism he notes that not only those things which “are plainly evident” have actual existence, but also those things “which, seminally present, as it were, in hidden corners of nature, wise men can demonstrate to exist”.⁷⁴⁶ He then goes on to describe magic as based on the manipulation of these “seminally” present things, simultaneously emphasizing the natural and religiously legitimate character of this magic:

By the uniting of such natural things that exist separately in the universe, in their different fashions, and by the actuation of other things placed somewhat higher, seminally, in nature, more wonderful things can be performed truly and naturally, without violence to faith in God or injury to the Christian religion, than any mortal might be able to believe.⁷⁴⁷

A plausible source for this idea is suggested by the specific terminology which Dee uses in this aphorism. In describing magic as a practice which “unites” the things that exist “separately” and “actuates” those that are placed “seminally” in nature, Dee’s phrasing is closely reminiscent of Pico della Mirandola’s definition of magic in the *Conclusiones*, a work which Dee owned at the time.⁷⁴⁸ Here, Pico asserted that all the miracles of magic were accomplished “through the union and actuation of those things that exist seminally and separated in nature” and that “no power in heaven or earth exists that the magician cannot actuate and unite”.⁷⁴⁹ What Pico seems to have meant is that the magician is able to “unite” virtues in heaven with those in earth by using natural substances according to the principles of sympathetic magic. These substances “actuate” the seminal forms

⁷⁴⁶ Dee, *Propaedeumata aphoristica*, III, pp. 122/123: “Sed & illa quoque quae quasi Seminaliter, in naturae latebris, Extare, Sapientes docere possunt.”

⁷⁴⁷ Dee, *Propaedeumata aphoristica*, X, pp. 124/125-126/127: “Per harum ergo rerum naturalium (modis variis) in mundo Separatim existentium, Unionem: & aliarum Seminaliter tantum prius in Natura positarum, Actuationem, miranda magis, vere, naturaliterque (nec violata in Deum fide, neque Christiana laesa religione) praestari possunt, quam quis mortalıs, credere queat.”

⁷⁴⁸ Robert and Watson (eds.), *John Dee’s Library Catalogue*, no. B121.

⁷⁴⁹ Pico della Mirandola, *Conclusiones*, ‘Conclusiones Magice numero XXVI secundum opinionem propriam’, no. 11, p. 79: “Mirabilia artis magice non sunt nisi per unionem et actuationem eorum, que seminaliter et separate sunt in natura”; and no. 5, p. 79: “Nulla est virtus in celo et in terra seminaliter et separata, quam et actuate et unire magus non possit.”

and establish a link between heaven and earth, making it possible to draw down powers from the celestial configurations. Or, as he put it in his *Oration*, “as the farmer marries elm to vine, so the magician marries earth to heaven, that is, lower things to the qualities and virtues of higher things”.⁷⁵⁰

Pico, however, does not speak of artificially constructed talismans of the kind that figure so prominently in Ficino’s *De vita*, published a few years later. Indeed, in his *Heptaplus* Pico explicitly rejected such talismans as a base and illicit form of magic: “Let us not shape images of the stars in metals but an image of him, the Word of God, in our souls.”⁷⁵¹ In *Propaedeumata aphoristica*, by contrast, Dee treats talismans as a legitimate form of magic, a feature that brings his views closer to Ficino than Pico. In his seventy-third aphorism he states that “those who love pure truth and experiment studiously” can infer “from the imitation [*imitatio*] of celestial bodies” what effect a particular planet, star or constellation has. By attending to this imitation, “which is perceived in inferior things to be made in some regular and orderly way”, the scholar can judge which planet, star or constellation is the “principal and, as it were, proper signifier [*Significator*]” of a particular effect. Dee also adds that “the imitation can be performed in various ways”, not only “in movement alone, in form, or in shape, but also in other properties and qualities”.⁷⁵²

Despite emphasizing that the imitation of celestial bodies can be performed in various ways — and the very range of techniques he cites suggests that he drew on nonscholastic sources when formulating his views — the only technique Dee discusses explicitly is talismans. This he does in an aphorism describing how the celestial bodies are like “seals” impressing particular “characters” upon all natural things, which are analogous to the “engraved forms” of artificial talismans:

The stars and celestial powers are like seals [*sigilla*] whose characters [*characteres*] are imprinted differently by reason

⁷⁵⁰ Pico della Mirandola, *On the Dignity of Man*, p. 28; cf. *Conclusiones*, ‘Conclusiones Magice numero XXVI secundum opinionem propriam’, no. 13, p. 79: “Magicam operari non est aliud quam maritare mundum.”

⁷⁵¹ Pico della Mirandola, *Heptaplus*, 2.7, p. 105. Regarding this issue, I believe that Frances Yates was clearly mistaken when she interpreted Pico’s magic conclusions as dealing with talismanic magic; see Yates, *Giordano Bruno and the Hermetic Tradition*, pp. 88–89.

⁷⁵² Dee, *Propaedeumata aphoristica*, LXXIII, pp. 158/159–160/161.

of differences in the elemental matter. In the same way, the engraved forms [*formae*] of our seals are imprinted more easily upon one material than upon another, more elegantly than in another, and cling more tenaciously to one than to another, and to some almost permanently. You will therefore consider talismans [*Gamaeas*] rather attentively, and other still greater things.⁷⁵³

The aphorism lucidly illustrates the “organic” relationship between the star constellations and the artificially constructed images intended to draw down their powers. By imitating shapes that were “naturally” impressed upon things by the influences of the heavenly bodies, the magician could reverse a natural process, forcing the stars to infuse their powers into the image. Dee’s ambivalent terminology, which obscures the distinction between “figures” and “characters” so important in scholastic discussions of talismanic magic, is reminiscent of Agrippa’s similar account of how “the seals and characters” of the stars are “stamped” or “impressed” upon all natural things. Such characters, writes Agrippa, are “the significator[s]” of those stars and “contain and retain in them the peculiar natures, virtues, and roots of their stars”. Inscribed upon other things they “produce the like operations ... and stir up, and help the influences of their stars” and for this reason the “ancient wise men” laboured to find out “the occult properties of figures, seals, marks, characters, such as Nature herself did describe by the rays of the stars, in these inferior bodies”.⁷⁵⁴

All in all, Dee’s conception of magic in *Propaedeumata aphoristica* is a syncretistic compound of different notions, many of them stemming from widely different philosophical traditions. This “liberal” attitude vis-à-vis textual accounts of magic was typical of Renaissance scholarship, and despite the many attempts to subsume early modern magic under broad, all-encompassing labels such as “Hermeticism” or “Neoplatonism”, no monolithic “theory” of magic existed in the Renaissance. Instead, the very myth which motivated the revival of Neoplatonic and Hermetic materials — the myth of the wisdom of the ancient sages — led early modern scholars to integrate and reconcile these materials with established scholastic doctrines.

⁷⁵³ Dee, *Propaedeumata aphoristica*, XXVI, pp. 134/135.

⁷⁵⁴ Agrippa, *Three Books of Occult Philosophy*, I.33, p. 102; cf. also I.11, p. 35. This work is listed in Dee’s library catalogue of 1557: Robert and Watson (eds.), *John Dee’s Library Catalogue*, no. B208.

How this was done, however, was ultimately dependent on the philosophical and religious inclinations of individual authors, and the resulting syntheses were often highly idiosyncratic in character. Thus, in presenting the theories of al-Kindi and Roger Bacon as reconcilable with a Neoplatonic conception of sympathetic magic and seminal reasons, Dee's approach was typical of Renaissance scholarship, even if the outcome was a unique philosophical amalgam. While no other contemporary scholar attributed the same importance to Bacon's optical theories as Dee did, both Bacon and al-Kindi were commonly alluded to in early modern accounts as heirs to the ancient wisdom. For example, in his *Oration Pico* named al-Kindi and Bacon as two of the foremost "moderns" who had "caught a scent" of the "Pythagorean and Platonic mysteries" of magic, explicitly associating their views of magic with those of Plotinus and subsequent Greek authors.⁷⁵⁵

But in appropriating Neoplatonic, Jewish and Hermetic sources, Renaissance scholars also tended to blur a distinction that had been fairly clear in scholastic philosophy: the distinction between magic, conceived of as the employment of natural and celestial forces, and mysticism, entailing a "gnostic" ascent of the magician's soul. Whereas mysticism figures prominently in medieval traditions of ritual magic, this feature was usually treated as distinct from "lower" forms of magic, aimed at manipulating natural and celestial powers. In the Neoplatonic tradition, however, the "operative" and "subjective" aspects of magic were intimately tied to each other, a feature that stands out clearly in Dee's *Monas hieroglyphica*.

Magic in Dee's *Monas hieroglyphica*

Dee's deliberately enigmatic style in *Monas hieroglyphica* makes it difficult to ascertain what part magic played in this particular work. It appears most clearly in the introduction, where Dee cites magic among those disciplines into which his hieroglyphic symbol was capable of yielding insights. Alluding to this art in terms that immediately evoke his earlier claims in *Propaedeumata aphoristica*, Dee describes his symbol as a "magical parable", which "hidden away in its innermost centre" possesses a "terrestrial body", and has the power to teach the studious disciple "by what divine force that [terrestrial body]

⁷⁵⁵ Pico della Mirandola, *On the Dignity of Man*, p. 28.

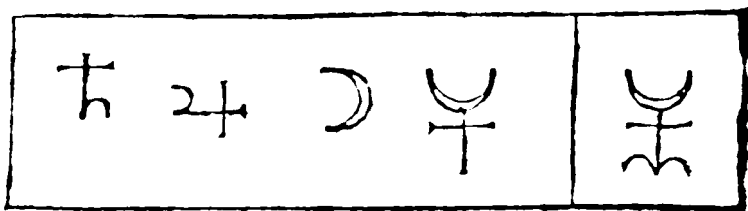


Fig. 32. “Geogamic figures”. From Dee, *Monas Hieroglyphica*, 1564, fol. 14^r.

should be actuated”. When this “terrestrial body” has been “actuated”, he continues, it will be “united (in perpetual marriage) to a generative influence which is lunar and solar”, even if these influences previously were “widely separated” from this body.⁷⁵⁶

Again, we find a clear echo of Pico della Mirandola’s idea of how things that are seminally present in nature can be “actuated” by magical means and thereby be “united” or “married” to celestial forces, even when “separated” from these. Though the actual meaning of Dee’s words remains obscure — nowhere in the text does he explain what the “terrestrial body” in the centre of the symbol refers to — it seems clear that he viewed his symbol not merely as a pedagogical or contemplative symbol; it also functioned as a magical talisman, capable of attracting celestial forces and of uniting earthly things to heavenly ones. In the text he gives precise instructions for the correct construction of the symbol, explicitly addressing “those wishing to bear it on rings or seals, or to use it in other ways”.⁷⁵⁷ He also explains how the astrological and alchemical characters, whose proper shapes he had restored by means of the Monas symbol, could be used to artificially reinforce the influences of the celestial bodies on the alchemical transmutation of matter if the alchemist “impressed” them “into the very pure and simple earth prepared by us” for “the length of an average day” (fig. 32).⁷⁵⁸

The phrase he uses to denote these talismanic characters is “geogamic figures”, *geogamicæ figurae*. The expression is probably derived from the word *gamaaea*, the term he used in *Propaedeumata aphoristica* to denote artificial talismans engraved with characters corresponding to those characters that were naturally impressed on

⁷⁵⁶ Dee, *Monas hieroglyphica*, pp. 134/135.

⁷⁵⁷ Dee, *Monas hieroglyphica*, pp. 200/201.

⁷⁵⁸ Dee, *Monas hieroglyphica*, pp. 162/163.

terrestrial things by the celestial bodies.⁷⁵⁹ The term, which is derived from the Greek *gamos*, “marriage”, recurs in the introduction to *Monas hieroglyphica*, where Dee alludes to his own Monas symbol as such a *gamaaea*. Referring to a treatise, now lost, in which he claims to have treated this subject, he defines this word as “the earth of marriage: or the terrestrial sign of a union performed in the realm of [astral] influences” — *Matrimonii Terram: sive Influentialis Coniugij, Terrestre Signum*.⁷⁶⁰ Dee again seems to echo Pico’s notion of how the magician “marries earth to heaven, that is, lower things to the qualities and virtues of higher things”.⁷⁶¹ Pico, however, never used the term *gamaaea* on those few occasions he discussed — and rejected — magical talismans. Instead, Dee’s use of this term stemmed from a scholar of a very different temperament and inclination, namely Paracelsus (1493-1541).

Dee’s interest in the works of Paracelsus can hardly be disputed, even if the exact nature of this interest has given rise to a discussion that is far from resolved.⁷⁶² When compiling a catalogue of his private library in 1583, Dee listed more than 120 titles in both Latin and German, covering the entire corpus of Paracelsus.⁷⁶³ Some of these works he had in two or even three copies, a fact which might indicate that he taught Paracelsian doctrines to personal students, as some of

⁷⁵⁹ Dee, *Propaedeumata aphoristica*, XXVI, pp. 134/135.

⁷⁶⁰ Dee, *Monas hieroglyphica*, pp. 134/135. The lost treatise is not mentioned by name, but since it is stated to have been presented to “the Parisians” in 1562, it probably refers to his *Cabalae Hebraicae compendiosa tabella*, the only work he wrote in that year.

⁷⁶¹ Pico della Mirandola, *On the Dignity of Man*, p. 28.

⁷⁶² Whereas the early studies of Yates and French to a large extent ignored the possible influences of Paracelsus on Dee’s work, Urszula Szulakowska has recently characterized Dee’s alchemy as “Paracelsian” (see her *John Dee and European Alchemy*, especially p. 13). However, as Clulee argues in “John Dee and the Paracelsians”, this claim has to be further substantiated. Most recently, György E. Szönyi has drawn attention to the similarities between Dee’s and Paracelsus’ conceptions of magic; see his “Paracelsus, Scrying, and the Lingua Adamica: Contexts for John Dee’s Angel Magic”.

⁷⁶³ See Roberts and Watson (eds.), *John Dee’s Library Catalogue*, appendix 5, pp. 198-200, where the editors have compiled a concordance between the works in Dee’s possession and Sudhoff’s *Bibliographica Paracelsica*.

the surviving copies have individual names, referred to as “discipuli”, noted on the flyleaf.⁷⁶⁴

When this keen interest in Paracelsus began is unclear, but as early as 1563 Conrad Gesner complimented Dee on his knowledge of Paracelsian literature.⁷⁶⁵ And yet, apart from the occasional use of specific terms, there is scant evidence of any concrete influences from this body of literature on Dee’s own works.⁷⁶⁶ The word *gamaaea* recurs frequently in Paracelsus’ works, generally with reference to stones on which the celestial influences have impressed characters that seem almost artificial.⁷⁶⁷ In *De signatura rerum*, for example, Paracelsus states that each occult art devoted to the reading of natural signs has its own particular stars, and that these stars “sign” terrene things “in a supernatural manner”. Thus, the stars that produce marks in the earth “sign or impress their marks on terrestrial bodies of the whole world in many and various ways”, not only by producing earthquakes, hills and valleys, but also by bringing forth “*gamaheos* on bare shapes and images having remarkable powers and potencies”. Paracelsus never discusses these remarkable powers, however, confining himself to the remark that they are received from the seven planets just as a target receives a thrown bullet or spear.⁷⁶⁸ Likewise, in *De vita longa*

⁷⁶⁴ See for example Roberts and Watson (eds.), *John Dee’s Library Catalogue*, no. 1476, and the editors’ discussion, pp. 41–45.

⁷⁶⁵ Clulee, “John Dee and the Paracelsians”, p. 113.

⁷⁶⁶ Apart from his use of the word *gamaaea*, Dee also refers to the scriber as a *beryllisticus*, a term appearing in Paracelsus’ *De signatura rerum*. (Dee, *Monas hieroglyphica*, pp. 136/137; Paracelsus, *Opera omnia*, II, p. 106).

⁷⁶⁷ See, for example, his *De Imaginibus*, in *Opera omnia*, p. 499: “Sic etiam multi exiles lapilli in aquis & arena reperiuntur, veluti silices, & peculiares, ut vocant, *Gamahey*, figuris insolitis conspicui, quasi manu & opera hominum illae coelatae & exsculptae essent, omnes tamen providentia & concilio Dei enatae.” See also p. 502.

⁷⁶⁸ Paracelsus, *De signatura rerum*, in *Opera omnia*, II, p. 115: “Hinc enim multae aliae quoque artes prodeunt, ut Geomantia, Pyromantia, Hydromantia, Chaomantia, & Necromantia, quarum quaelibet sua peculiaris astra habet quae astra modo supernaturali ita signant. Et sciendum est, astra Geomantiae signa sua signare seu imprimere in terreno corpori universi orbis, multis quidem ac variis modis. Nam & terram mutant, & terrae motus ac hiatus pariunt, gignunt colles & valles, multa nova crescentia paturiunt, proferunt *Gamaheos* nudis figuris & imaginibus, insignes vires & potentias habentes, quas quidem a septem planetis accipiunt, non secus ac orbis seu scopus glandem aut telum accipit à iaculatore.” For E. A. Waite’s English translation, see *The Hermetic and Alchemical Writings of... Paracelsus the Great*, I, p. 191.

Paracelsus states that not only incantations, but also “images and Gamahaeas” receive their power from “supernatural influences”.⁷⁶⁹

Though Dee was clearly familiar with these works,⁷⁷⁰ it is also obvious that he used the term *gamaaea* to denote an artificially engraved talisman rather than characters naturally impressed by the stars. But Dee was also keen to stress the correspondence between artificially constructed talismans and the characters imprinted on nature by celestial bodies. This correspondence explains not only why Dee chose this particular term to denote artificial talismans, but also how it was possible for Dee to link his conception of the Monas symbol as a magical *gamaaea* to its status as a “natural” language. As we have seen in previous chapters, Dee conceived of his symbol as a “real kabbalah” which could yield insights into the laws of nature by epitomizing the divine mathematical principles underlying creation — principles that were also “inscribed by God’s own finger on all creatures”.⁷⁷¹

In context, this latter claim appears clearly metaphorical and there is nothing in the text that suggests that Dee’s “real kabbalah” was somehow manifested in nature in visible form. Indeed, the very *raison d’être* of the Monas symbol was its ability to make metaphysical laws ordinarily beyond the grasp of human comprehension apprehensible to the human mind. And yet, turning to Dee’s copy of Synesius’ *De insomniis* we find a note that explicitly links his “real kabbalah” to the Paracelsian doctrine of signatures. Synesius introduces his text by describing how the entire world is like a single living creature, within whose frame all things constitute or manifest “signs” of other things. The universe is like a “book” written in characters of different languages: a book in which all things are “signed” with “letters of all

⁷⁶⁹ Paracelsus, *De vita longa*, I.6, in *Opera omnia*, p. 56: “Ex Influentia supernaturali non modo incantationes, verum etiam imagines, & Gamahaeas fluxisse.” For other text in which Paracelsus uses the term, see his *Astronomia magna*, in *Opera omnia*, p. 558; and *Explicatio totius astronomiae*, in *Opera omnia*, p. 652.

⁷⁷⁰ *De natura rerum* is listed twice in Dee’s library catalogue of 1583 (Roberts and Watson, nos. 1485 and 2268), but as early as 1564 he wrote a letter to Bartholomeus de Rekingen, in which he refers to their discussion on “de signatura rerum”; see Clulee, *John Dee’s Natural Philosophy*, p. 280n106. A reference to “Paracelsi dogmata in vita longa” appears in his copy of Plotinus’ *Enneads*; see Royal College of Physicians, shelfmark D 124/5, 17c, fol. 38^v.

⁷⁷¹ Dee, *Monas hieroglyphica*, pp. 124/125.

kinds” which the wise can read.⁷⁷² Next to this passage Dee has not only noted “Cabala nostra *tou ontos*” — “Our kabbalah of that which is”; he has also made one of his few references to Paracelsus: “*Ars signata: Hinc Paracelso et nomen et nominis Ratio constare poterat*” — “The signatory art: From this [art], according to Paracelsus, it was possible to establish both the name and the reason of the name”.

The note clearly refers to Paracelsus’ famous account of how the prelapsarian Adam bestowed proper names upon all things by reading the signatures they bore imprinted upon their bodies:

...the signatory art teaches how to give true and genuine names to all things, and all of this Adam Protoplastus truly and entirely understood. So it was that after the Creation he gave its own proper name to everything, to animals as well as trees, roots, stones, minerals, metals, waters, and the like, and to other fruits of the earth, of the water, of the water, and of the fire. And whatever names he imposed upon these were authorized and approved of by God. These names were based on a true and innermost foundation: not on mere opinion, but on a predestinated science, that is, on the signatorial art. Hence, Adam appears as the first Signator.⁷⁷³

As an unfallen *imago Dei*, Adam was capable of reading the divine signatures inscribed upon things and thereby giving them proper

⁷⁷² Synesius, *De insomniis*, in Iamblichus, *Index eorum* (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage), fol. 44^r: “In mundo tanquam uno quodam animali res aliae signa aliis exhibent. Si autem per omnia significantur, quippe cum omnia in uno animali mundo sint germana, atque sunt hae veluti *omniformes literae*, sicut in libro, sic in universo *signatae*, partim quidem phoeniciae, partim vero aegyptiae, partim assyriae: has autem sapiens ipse legit.” (Dee’s emphasis).

⁷⁷³ Paracelsus, *De signatura rerum*, in *Opera omnia*, II, p. 114: “Sciatis autem primum, signatam artem docere, quomodo vera & genuina nomina rebus omnibus indenda sint, quae Adam Protoplastus vere & integre omnia sciuit. Illico enim post creationem cuilibet rei proprium suum nomen imposuit, tam animalibus quam arboribus, herbis, radicibus, lapidibus, mineralibus, metallis, aquis, & c. ceteris fructibus terrae, aquae, aëris, ignis, & c. Et quae nomina ille his omnibus imponebat, ea Deo rata & probata erant. Ex vero enim & intimo fundamento ea desumebantur: non ex opinione, sed ex praedestinata scientia, ex arte scilicet signatâ. Ideo Adam Signator primus existit.” For Waite’s English translation, see *The Hermetic and Alchemical Writings of . . . Paracelsus the Great*, I, pp. 188-189. Since Dee uses the Latin expression “*Ars signata*”, I have chosen to rely on the Latin text rather than the original German.

names according to their true natures, a capacity that made him the first “signator”, the first practitioner of the “art of signatures”. Whether Paracelsus considered this Adamic language to be Hebrew or a kindred tongue is uncertain, however, as he continues with a curiously ambiguous statement:

Nor can it be denied that genuine names also flow forth from the Hebrew language, and are imposed on each thing according to its nature and condition. For the names which are imposed in the Hebrew tongue, indicate by that very act the virtue, power, and property of the very thing itself.⁷⁷⁴

But if Paracelsus was evasive concerning the status of Hebrew, he clearly regarded the Adamic language as based on the “natural” language inscribed upon the things themselves, the one language that truly reflected the *verbum Dei*. The Paracelsian scholar Oswald Croll, active at the court of Rudolph II a few years after Dee’s sojourn in Prague, described signatures as “the footsteps of the invisible God in the Creatures, the Shadow and Image of the Creator imprest in the Creatures”.⁷⁷⁵ As such, signatures were marks of similitude and likeness which manifested both the inherent properties and virtues of a thing, and their correspondence to the superior spheres from which these properties stemmed. As Croll wrote, signatures were “both visible exemplary Notes of Superiours, and Symbols of Internal things... For every Creature is created, that it may be a Testimony to the Word of the Creator, by which it was made.”⁷⁷⁶

Due to Paracelsus’ tremendous impact upon natural philosophy, the doctrine of signatures was one of the most widely discussed disciplines in the late sixteenth century. But many scholars also viewed the

⁷⁷⁴ Paracelsus, *De signatura rerum*, in *Opera omnia*, II, p. 114: “Negari quidem non potest, quod etiam ex lingua Hebraica genuina nomina profluant, & cuilibet rei pro sua natura & conditione imponantur. Quae enim ex Hebraica lingua nomina imponuntur, illa eadem opera etiam rei istius virtutem potestatem & proprietatem indicant.”

⁷⁷⁵ Crollius, “Treatise of Signatures”, in *Bazilica Chymica, & Praxis Chymiatricae or Royal and Practical Chymistry*, sig. A2”. On Croll’s work in general, see Hannaway, *The Chemists and the Word*. For a discussion of this particular work, see Kühlmann, “Oswald Crollius und seine Signaturenlehre: Zum Profil hermetischer Naturphilosophie in Ära der Rudolphs II”.

⁷⁷⁶ Crollius, “Treatise of Signatures”, in *Bazilica Chymica, & Praxis Chymiatricae or Royal and Practical Chymistry*, sig. B2’.



Fig. 33. Signatures. From Giambattista della Porta, *Phytognomonica Io*, 1588, pp. 184 and 317.

ars signata as part of an ancient wisdom, and treated it quite independently from a Paracelsian context. In *Phytognomonica Io* (1588) Giambattista della Porta drew upon a wealth of classical sources when describing and illustrating how every thing in the natural sphere exhibits marks of similitude which reveals its inner virtues. Thus, for instance, plants with the signature of *Scorpio* were able to cure the poisonous sting of the scorpion, whereas lunar plants, bearing the signature of the moon, were able to cure deficiencies of the brain and the bodily senses, make our brain, nerves and eyes more acute and our mind cheerful (fig. 33).⁷⁷⁷

The doctrine of signatures can be seen as an inevitable outcome of a metaphysics in which similitude, cosmic correspondences and sympathetic relationships were central features. Even if Paracelsus and his followers attributed to the “art of signatures” a previously unrivalled scope and importance, the doctrine was implicit in the commonplace notion that the celestial bodies “impressed” their “characters” upon terrestrial entities. What the Paracelsian development of this notions did was to reinforce the metaphorical relationship between God’s Word and the Book of Nature, while simultaneously giving rise to interpretive practices that gave nature precedence over

⁷⁷⁷ della Porta, *Phytognomonica Io*, pp. 184-185, 317-318.

textual interpretation.⁷⁷⁸ When Croll echoed Dee's words in *Monas hieroglyphica* — to which he also referred in a concluding "Corollary" — it was with the intention to divorce the reading of the Book of Nature from the exegetical techniques of a "bookish culture": "the Characters of Nature, and these Natural Signatures, which from the Creation, not with Inke, but with the very finger of GOD, are imprinted in all creatures (indeed every creature is a Book of God) are the better part of true Literature, by which all occult things are read and understood..."⁷⁷⁹

To Dee, by contrast, the reading of the Book of Nature could never be divorced from language. Despite his industrious experimentation in alchemy and careful observations of heavenly phenomena, he ultimately sought the truth of nature either in textual sources, or — and more important — through the techniques of symbolic exegesis developed in *Monas hieroglyphica*. Nature was accessible to interpretation *through* language, and if his "real kabbalah" was "inscribed by God's own finger on all creatures", it was nevertheless closely tied to linguistic practices. It is perhaps no coincidence that when Dee placed his own kabbalah "of that which is" on a par with Paracelsus' doctrine of signatures, it was with a reference to the role the signatures had in Adam's creation of a "natural" language — a feature that had a minor role in Paracelsian philosophy, but which was at the very heart of Dee's strivings for knowledge.

All in all, it is not impossible that Dee envisaged his *Monas* symbol as based on signatures that were naturally impressed by the stars on terrestrial things, a suggestion which would explain why he ascribed talismanic powers to the symbol. But it should also be borne in mind that despite Dee's use of the term *gamaadea*, the notion was not necessarily derived from Paracelsian sources. Agrippa, to name just one example, could cite a host of ancient and contemporary authorities when describing how the celestial constellations impressed their characters upon all terrestrial entities "so that every species hath its celestial shape, or figure that is suitable to it, from which also proceeds a wonderful power of operating".⁷⁸⁰ Like Dee — but unlike

⁷⁷⁸ See Bono's discussion in *The Word of God and the Languages of Man*, especially pp. 129-140.

⁷⁷⁹ Crollius, "Treatise of Signatures", in *Bazilica Chymica, & Praxis Chymiatricae or Royal and Practical Chymistry*, sig. B4^r; for the reference to Dee's *Monas hieroglyphica*, see p. 38. See also his *Philosophy Reformed & Improved*, pp. 179-180.

⁷⁸⁰ Agrippa, *Three Books of Occult Philosophy*, I.11, p. 35.

Paracelsus — Agrippa also believed these characters to correspond in certain ways to the conventional Hebrew, Latin and Greek alphabets, and to the traditional characters used by alchemists and astrologers. None of these characters, he wrote, were “formed by hap, or chance, nor by the weak judgement of man, but from above, whereby they agree with the celestial, and divine bodies, and virtues” (cf. fig. 20).⁷⁸¹

Whatever impact Paracelsus had on Dee, it is also clear that he was merely one in an assortment of eminent thinkers influencing his work, ranging from late ancient philosophers like Plotinus and Synesius, to medieval scholars like al-Kindi and Bacon and Renaissance syncretists like Pico and Trithemius. Since Dee’s conception of these sources was informed by his belief in the unity of knowledge, he often interpreted them in the light of each other, a practice which often suppressed the specific characteristics of these sources while simultaneously making them reconcilable in meaning. It is in a sense typical of Dee’s approach to textual interpretation that the only explicit connection between Paracelsus’ doctrine of signatures and his own “real kabbalah” appears in a late ancient work like Synesius’ *De insomniis*. But this should also make us wary of casual labels like “Paracelsian influences”, as the meaning that Dee attributed to these notions was a result of reading practices that differed considerably from those of modern scholarship.

Although Dee described the Monas symbol as a magical talisman in terms that closely paralleled his earlier account of magic in *Propaedeumata aphoristica*, there is also a theme in *Monas hieroglyphica* that is entirely missing from the earlier work. In *Monas hieroglyphica*, the “operative” virtue of the symbol was intimately linked to its “subjective” effect; that is, its power to induce a mystical ascent of the soul in those who employed it. This feature is clearly expressed in the introduction, where Dee states that when the symbol has fulfilled its task as a magical *gamaaea*, it “can no longer be fed or watered on its native soil, until the fourth, great, and truly metaphysical, revolution is completed”. At that stage, he continues, the one who employs the symbol will “go away in a metamorphosis” and attain that “true invisibility of the *magi*” which philosophers have so often spoken of.⁷⁸² The enigmatic reference to four “supercelestial revolutions” recurs

⁷⁸¹ Agrippa, *Three Books of Occult Philosophy*, I.74, pp. 223-225. See also I.33, pp. 102-104; and II.51, pp. 406-407.

⁷⁸² Dee, *Monas hieroglyphica*, pp. 134/135-136/137.

towards the end of the text, where Dee describes how the adept ascends from the “horizon of time” to the “horizon of eternity”, thereby becoming that “singular hero” who had risen through the entire hierarchy of creation and attained an understanding of the “supercelestial virtues and metaphysical influences”.⁷⁸³ What Dee seems to imply is that the operative power of the Monas symbol to draw down celestial influences and “unite” these to the terrestrial elements gives way to a corresponding ascent of the practitioner’s soul, raising it towards — and ultimately uniting it with — the divinity. The idea of a mystical ascent of the soul was, in other words, not only associated with the intellectual contemplation of the Monas symbol, which enabled the adept to transcend rational reasoning, *dianoëa*, and attain comprehension through intellection or *noësis*; the attainment of “Mens adepta”, the highest stage of knowledge, could also be understood in terms of magic, as something intimately tied to the talismanic properties of the symbol.

The idea that “operative” and “subjective” magic constituted two corresponding and mutually dependent processes was common in the Renaissance, and in addition to Trithemius’ letters, Dee had access to a variety of sources from which he could derive these conceptions. In 1562, the very year he became acquainted with Trithemius’ works, Dee also acquired Walter Hermann Ryff’s (c. 1495–1560) commentary on Pliny’s *Natural History*.⁷⁸⁴ In this text Ryff gives a brief account of how celestial and supercelestial virtues can be brought down by various magical means, using a terminology reminiscent of Ficino’s *De vita*.⁷⁸⁵ In the following paragraph, he goes on to explain how

⁷⁸³ Dee, *Monas hieroglyphica*, pp. 214/215–216/217, 116/117–118/119. This has been discussed above, pp. 220–223.

⁷⁸⁴ On this text, which to a large extent is a plagiarism of Stephanus Aquaeus’ commentary on Pliny, see Clulee, *John Dee’s Natural Philosophy*, p. 279n90.

⁷⁸⁵ Riffinus, *In Caii Plinii Secundi Naturalis Historiae* (London, Royal College of Physicians, shelfmark D 133/6, 19c), sig. A.iiij.^v: “*Tradunt enim Magi, per inferiora superioribus conformia posse oportunitis coeli influxibus, celestia dona trahi. Ea est mundi concordia, ut etiam supercelestia, coelestibus: & supernaturalia, ut ipsi ferunt, naturalibus trahi possunt atque conspirare: quia una virtus opifex & specierum participatio, per omnia diffunditur: quae virtus, sicut ex occultis rationibus manifesta producit, ita magis assumit manifesta, occulta, ut attrahat per radios stellarum, per sonos, per res naturales congruas coelestibus, quibus agemus hic, & mensurae corporeae, atque (prope dixerim) divinae.*” (Dee’s emphasis). See also sigs. B.ij.^l–B.ij.^r, C^v and C.iiij.^v where Dee has marked passages describing magic images and words.

the beams of the divine light infuse their power into the human soul, rising it toward God. When completely filled by the light and saturated by the divine, the human soul is carried off, drawn by God into Himself. As Ryff remarked, this was the pure soul living solely through the mind, which the angels possessed and which had been praised by the ancient sages, the great *magi*.⁷⁸⁶ Significantly, Dee has underlined both passages and noted “Adeptivus” next to the latter one, the term he used in *Monas hieroglyphica* to denote those who attained the highest stage of knowledge.

Ryff drew upon a wide range of sources in his commentary, including the Neoplatonic works of Plotinus, Proclus, Iamblichus and Psellus, which Dee was also familiar with in their original form. In his extensively annotated copy of Synesius’ *De insomniis*, for instance, Dee has taken the trouble to compare Ficino’s Latin rendering of important passages with the original Greek. This text had an important role in Ficino’s account of magic in *De vita coelitus comparanda*, in which Ficino elaborated Synesius’ concept of divine “baits” (Lat. *illices* or *illecebrae*). This concept was Synesius’ own addition to the metaphysics of Plotinus, which he introduced to make a distinction between a “lower” magic making use of things, and a “higher” magic of signs. According to Synesius, the *illices* — which were both magical material objects and immaterial processions from the godhead — were signs or tokens of divine presence. As such, they were not only capable of provoking sympathetic responses from other parts of the universe; by having a share in the godhead, they could also attract gifts from outside the cosmos, stemming directly from the divinity.⁷⁸⁷

⁷⁸⁶ Riffinus, *Ibid.*, sig. B’: “... arbitrantur enim Chalaeorum peritissimi, ab rationali anima id, quo nihil admirabilius, aut fingi aut pensulari potest, quandoque fieri posse, ut radiorum splendore ab ipsa manantium illustratum, divino more corpus etiam surrigi possit in sublime, ad id maxime conferente, insita radiis lenitate, quod Zoroastri contigisse aiunt, tanta certe nobis est cum caelo affinitas: contingere vero id potissimum ferunt, *quando tota in Deum Patrem lumen, consurgit anima*, ac illinc luce amplissima *perfusa rapitur*, atque similiter luminosae claritatis radios transmitti in corpus. Hec enim est anima, quae *sola mente* vivens, *ut Angelus* evadit, ac toto (ut sic dixerim) pectore Deum quodam modo concipit, de qua Magorum princeps cecinit: Hominum, ait, anima, Deum quodam modo contrahit in seipsam, quando retinens mortale, tota divinis haustibus inebriatur.” (Dee’s emphasis).

⁷⁸⁷ Synesius, *De insomniis* (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage), fols. 44^{r-v}, marked and annotated by Dee. For a brief discussion of this distinction, see also Copenhagen, “Iamblichus, Synesius and the

Synesius clearly regarded the lower, sympathetic form of magic as base and illicit, since it bound man to matter, whereas the higher form liberated his soul from the bonds of nature and enabled him to ascend towards, and unite with, the godhead. This feature obviously attracted Dee's attention, and in his copy of *De insomniis* we find frequent notes on "ascensus" and "Mens adepta" in the margin.⁷⁸⁸

Neoplatonic theurgy and Renaissance magic

The distinction between lower and higher magic also appears in *De mysteriis aegyptiorum* of Iamblichus, another of the Neoplatonic texts which exerted influence on the Renaissance conception of magic. Like Synesius, Iamblichus believed that certain material substances could be viewed as signs or tokens of divine powers. The subject of Iamblichus' work was quite different from Synesius' account of prophetic dreams, however. In *De mysteriis* Iamblichus discussed how such tokens could be used in theurgic rituals and sacrifices aimed at man's union with God. From a Christian perspective, the practice of theurgy had a dubious ring of demonic idolatry about it, and in his *City of God* Augustine forcefully condemned the use of consecrations and rituals to purify the human soul, thereby making it "capable of welcoming spirits and angels, and of seeing the gods".⁷⁸⁹ Iamblichus himself was not insensitive to the potential dangers of theurgy, but from his non-Christian viewpoint these dangers were discussed in quite different terms. In *De mysteriis* he distinguished between three forms of ritual practices. Firstly, he rejected rituals that were not properly theurgic at all, and which he characterized as "thaumaturgy" or "wonder-working". These rites he considered illicit on the grounds that they did not derive their efficacy from true divinities, but from physical nature or from evil *daemones* taking the appearance of divinities. Secondly, he approved of theurgic rites making use of material substances to provoke responses from cosmic divinities by means of sympathy. The effects of these rituals, however, were confined to the world of nature and to the divinities assigned to that realm. As such, they were merely an initiatory stage to a higher form of theurgy which was directed towards supracosmic gods. In fact, the rites of

Chaldaean Oracles in Marsilio Ficino's *De Vita Libri Tres*", pp. 446-447.

⁷⁸⁸ Synesius, *Ibid.*, fols. 44^v, 45^v, 46^r and 47^r.

⁷⁸⁹ Augustine, *City of God*, X.9, p. 384.

lower theurgy could only be approved of if the theurge remembered that they were an antecedent to higher theurgy, since they threatened to trap him in the world of nature if used with another end in view. When performed correctly, however, these lower rites served as stepping-stones to the higher theurgic rituals, which elevated man's soul towards the supreme godhead and enabled him to unite with the First Cause through intellection — *noesis*.⁷⁹⁰

Needless to say, Iamblichus' text posed a number of problems when read from a Christian point of view. In *De vita coelitus comparanda* Ficino repeatedly referred to *De mysteriis*, but, significantly, he was also careful to avoid the subject that was the very heart of Iamblichus' account, the theurgic rituals. Instead he made Iamblichus' views subject to a highly selective, syncretistic and Christian interpretation. Aware of Iamblichus' rejection of magic images as "wonderworking", Ficino stated that those "who hope for divine gifts" from images were very often deceived "by evil daemons encountering them under the pretence of being good divinities". Quite correctly, he surmised that Iamblichus' critique was directed against the Egyptians' use of magic statues as described in the *Asclepius*. But if Ficino was willing to acknowledge that the use of magical statues was, at least potentially, dangerous and illicit, he completely omitted Iamblichus' second reason for rejecting them: that is, that their effects were merely natural. Instead, Iamblichus' rejection of talismanic magic was turned into approval when Ficino immediately added: "Iamblichus does not deny, however, that certain natural goods come to pass from images constructed according to a legitimate astrological plan".⁷⁹¹ To a Christian reader steeped in scholastic philosophy there was no reason to reject magic on the grounds that it was natural. To Ficino the controversial issue was the exact opposite: whether there existed legitimate magic means which could be used to provoke *divine* responses.

Iamblichus' response to this question was, of course, affirmative, and in *De vita* Ficino invoked *De mysteriis* when stating that by prop-

⁷⁹⁰ For a valuable analysis of Iamblichus' theurgy, see Smith, *Porphyry's Place in the Neoplatonic Tradition*, pp. 83-110; on the distinction between lower and higher theurgy, see especially pp. 90-99. For a brief but useful discussion, see also Copenhaver, "Iamblichus, Synesius and the *Chaldaean Oracles* in Marsilio Ficino's *De Vita Libri Tres*", pp. 448-449.

⁷⁹¹ Ficino, *Three Books on Life*, 3.18, pp. 342/343. The relevant passages are Iamblichus, *De mysteriis* 3.13, 3.28-30, in Ficino, *Opera omnia*, pp. 1886, 1891.

erly handling certain material substances that are “naturally akin to the things above [*naturaliter superis consentaneae sint*] ... you can receive forces and effects which are not only celestial, but even daemonic and divine”. The statement clearly alludes to Iamblichus’ account of how the rites of lower theurgy made use of certain pure substances which served as receptacles of divine power. Ficino, however, invokes this passage in the context of image magic and the overall impression is that Iamblichus approved of talismanic images as a means to attract divine gifts.⁷⁹² This impression is reinforced in the concluding chapter of *De vita*, in which Ficino returns to Iamblichus’ condemnation of the Egyptians’ worshipping of magic statues. Though he agrees with Iamblichus that such practices are abominable, he concludes the whole work with a summary of Plotinus’ conception of magic, describing how even divine gifts can be called down by means of material forms corresponding to the seminal reasons. At the very end he adds: “Iamblichus too confirms this when he deals with sacrifices”.⁷⁹³ In effect, Ficino’s forced attempt to legitimize image magic not only tempted him to put Plotinus’ and Iamblichus’ views of magic on a par with each other; he also used the latter to justify a form of magic he had clearly rejected in *De mysteriis*.

Ficino’s selective and self-willed reading of *De mysteriis* was to a large extent fostered by his ambition to subsume Iamblichus’ account under the grand narrative of the “perennial philosophy”, while simultaneously evading issues that were deemed controversial from a Christian perspective. To what extent Dee, who shared Ficino’s belief in the unity of knowledge, applied to Iamblichus for corroboration of his own work is harder to ascertain. Judging by his annotated copy of *De mysteriis*, however, it is clear that he saw numerous parallels between his own conceptions and those of Iamblichus. But it is equally clear that he shared Ficino’s predicament when trying to reconcile these notions with a Christian and scholastic perspective on magic. Among the most heavily marked sections in the work are those containing Iamblichus’ critique of the “maker of images”. In these chapters Dee has carefully underlined the key points in Iamblichus’ critique: how images constructed according to the observation of the stars contain nothing divine, how the art is neither pious nor deifying

⁷⁹² Ficino, *Three Books on Life*, 3.13, pp. 306/307, referring to *De mysteriis* 5.23, in Ficino, *Opera omnia*, p. 1899.

⁷⁹³ Ficino, *Three Books on Life*, 3.26, pp. 388/389-390/391.

(*deificus*), and how those who employ it are merely making use of natural powers inherent in the cosmos. In the margin, however, we find the note “Imagines et Gamahea”, which suggests that Dee, despite Iamblichus’ rejection, identified these practices with a legitimate form of magic he himself advocated.⁷⁹⁴

Like Ficino, Dee also took a keen interest in Iamblichus’ notion that certain “divine and pure” substances could be used to attract and capture divine powers in material forms. Such substances, wrote Iamblichus, had been created by the Creator and Father of everything and had acquired a perfection which made them appropriate for the reception of the gods. When the ancient Egyptians engaged in the theurgic art, they brought together such “sacred, perfect and deiform” substances — stones, herbs, animals, aromatics and similar materials — by means of which they crafted pure and consummate receptacles for the gods.⁷⁹⁵ The notion had its basis in the Neoplatonic conception of hierarchical “orders” or “chains” spanning from heaven to earth. As members of such chains, these substances constituted “signs” or “tokens” — in Iamblichus’ Greek terminology *symbola* or *synthemata* — whose resemblance to higher entities gave them a particular disposition towards which higher powers would proceed of their own accord.

Such “tokens” were also an important feature in the rites of higher theurgy, aimed at uniting man with the supreme godhead. Iamblichus was careful to stress that these *symbola* and *synthemata* were not dependent on the mind of the operator to be efficacious. When engaging in the theurgic rites, he claims, we do not attain a union with the deity by means of our intellect. Instead, the divine “tokens” perform their own work, and the power of the gods, which these symbols refer to, recognizes its own images without being sum-

⁷⁹⁴ Iamblichus, *De mysteriis*, 3.28-30, in Dee’s copy (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage), fols. 12^v-13^r.

⁷⁹⁵ Iamblichus, *De mysteriis*, 5.23, in Ficino, *Opera omnia*, p. 1899, and in Dee’s copy fol. 17^r: “Nemo miretur, si quam materiam esse dicimus puram, atque divinam, *nam ipsa quoque materia, cum ab opifice, patreque omnium facta sit, merito perfectionem sui quandam acquisisse potest adaptam ad deos suscipiendos.* [...] Haec igitur sacrorum sapientia contemplata, atque ita secundum congruentiam, competentia unicuique deorum susceptacula diligenter inveniens, *saepe componit in unum lapides, herbas, animalia, aromata, aliaque similia, sacra, & perfecta, & de<i>formia*: atque subinde ab his omnibus susceptaculum purum, integrumque fabricat.” (Dee’s emphasis).

moned by man.⁷⁹⁶ Given Ficino's Christian frame of mind it is not altogether surprising that he translated the Greek terms *symbola* and *synthemata* as "*signacula et sacramenta*" — "seals and sacraments" — and provided the whole section with the heading "On the virtue of the sacraments". Curiously, however, Ficino concludes the section with an addition of his own, in which he draws a parallel between the theurgic rituals and those arts Iamblichus explicitly rejects in his chapter on the "makers of images". Just as man, when he engages in these arts, prepares suitable matter to attract celestial and natural gifts, so the theurgist employs certain entities into which God has imprinted power as *signacula et sacramenta*.⁷⁹⁷ Again, Ficino seems reluctant to acknowledge Iamblichus' critique of image magic. Instead, he presents man's ability to draw down powers from above as complementary to the mystical ascent induced by the theurgic sacraments. Whether it was this feature that caused Dee to echo "*Ars Imaginum*" in the margin we cannot know, but it is clear that Ficino's remark brought Iamblichus' views closer to Dee's own conceptions in *Monas hieroglyphica*.

But what exactly were these higher *synthemata* or "sacraments" by means of which the theurgist could attain a union with the god-head? Some passages in *De mysteriis* suggest that these tokens were material substances similar to those used in lower theurgy. One example is Iamblichus' statement that the human soul can be prepared for the ascent toward God if we purify our spirit by means of "purged

⁷⁹⁶ Iamblichus, *De mysteriis*, 2.11, in Ficino, *Opera omnia*, p. 1882 and in Dee's copy, fol. 7^v: "Observantia decens praeceptorum, operumque divinorum, quae omnem excedunt intelligentiam, atque symbolorum, sacramentorumque potestas mira solis nota numinibus, praestat nobis deificam unionem. Quando operamur in sacris non conficimus per intelligentiam sacramento, alioquin & actio eorum intellectualis foret, & daretur a nobis: contra vero & nobis non intelligentibus, haec proprium opus peragunt, & deorum potestas quo haec referuntur, ineffabiles ex seipsa proprias agnoscit imagines non a nostris excitata."

⁷⁹⁷ Iamblichus, *De mysteriis*, 2.11, in Ficino, *Opera omnia*, p. 1882, and in Dee's copy, fol. 7^v: "Conclude sententiam Iamblichi Aegyptiorum, Assyriorum, sicut in agricultura, medicina, arte *imaginum*, coitu humano homo materiam opportune coaptat. Causa vero superior, universalisque adhibet formam: sic in sacrificio, quando fiunt symbola, atque synthemata, id est, signacula & sacramenta, sacerdos adhibet materialia quaedam, quo ordine decus instituit. Deus autem vim efficacem imprimit sacramentis." (Dee's emphasis). Cf. 3.28 (in Ficino's *Opera*, p. 1891; Dee's copy fol. 12^v), where these arts are described as a means by which man attracts celestial and natural gifts, which is Iamblichus' reason for rejecting them.

water”, a notion with obvious Christian connotations, which might have been Dee’s reason for marking this passage.⁷⁹⁸ In a later section, however, Iamblichus describes how the theurgist has the power to command cosmic gods (*numina mundana*), a power which is greater than that pertaining to his human nature, and which he has acquired by conjoining with the higher gods by means of “ineffable symbols, or seals, which we designate sacraments”.⁷⁹⁹ What Iamblichus seems to have in mind in this context is not material substances, but those symbolic expressions of higher entities he discusses in the immediately following sections — hieroglyphs and divine names.

Though Iamblichus never uses the term hieroglyphs, it was commonly held that his account of how the Egyptians fabricated symbolic images of superior entities, by means of which they could comprehend the intelligible world of divine Ideas, referred to the images described in Horapollo’s *Hieroglyphica*.⁸⁰⁰ Though Dee’s acquaintance with this tradition is reflected in his decision to designate his own symbol as “hieroglyphic”, he has not marked the relevant section in his copy of *De mysteriis*. His interest stands out clearly in the following sections, however, in which Iamblichus discusses the power of “divine names”. Such names, writes Iamblichus, do not signify “according to human fancies”, but according to “the intellect, which is divine in us, or in a more simple and excellent manner, according to the intellect which has been united to the gods”.⁸⁰¹ Though Dee has not marked this particular sentence, he undoubtedly knew that what Iamblichus referred to was the power of these *synthemata* to enable the human mind to transcend rational reasoning, *dianoëa*, and attain

⁷⁹⁸ Iamblichus, *De mysteriis*, 3.11, in Ficino’s *Opera*, p. 1885, and in Dee’s copy 9^v: “... per purgatoriam *aquam* factam a Deo talem, quae purificat spiritum...” (Dee’s emphasis).

⁷⁹⁹ Iamblichus, *De mysteriis*, 6.6, in Ficino’s *Opera*, p. 1901: “Praetera sacerdos saepe non humana virtute, sed divina sacramentorum ineffabilium potestate mundanis numinibus imperat, atque minitatur, ipse tunc in superiorum deorum ordine constitutus, & ideo grandioribus propria natura mandatis utitur, atque minis, neque tamen tanquam facturus, quae tunc asseverat, sed declarans quantum nactus fuerit potestatem propter ipsam ad Deos unionem comparatam, videlicet ex notitia, possessioneque ineffabilium symbolorum, sive signaculorum, quae dicimus sacramenta.”

⁸⁰⁰ Discussed above, pp. 139–142.

⁸⁰¹ Iamblichus, *De mysteriis*, 7.4, in Ficino’s *Opera*, p. 1902: “...neque secundum imaginationes humanas, sed secundum intellectum, qui in nobis est divinus, vel potius simpliciore, praestantioreque modo secundum intellectum diis unitum.”

comprehension through intellection, *noesis*. As Iamblichus asserts, we not only comprehend the essences, powers and orders of the divine by means of these names: we also preserve a mystic, ineffable and complete image of the divinities in our soul, which we raise toward and ultimately conjoin with the gods.⁸⁰²

Throughout the remainder of the chapter Iamblichus discusses how such divine names were preserved in ancient, “barbaric” languages, a discussion which Dee has carefully marked and annotated. In contrast to contemporary tongues, the words of these ancient languages were not based on the compact and agreement of men (*ex hominum pacto conventoque*), but had been accommodated to the nature of things (*naturae rerum accommodata*). Hence, they were closer to the gods and had the power to unite man with the divinity, a power which they lost when translated to other tongues.⁸⁰³ Given the obvious parallels to the biblical narrative of Adam’s naming of the animals and the subsequent confusion of tongues, it is plausible that Dee interpreted this account from a Christian perspective. Read in this way, Iamblichus’ account corroborated his belief that language was a means by which man could transcend his ordinary mental faculties and attain a state of literally divine comprehension — or, in a patristic terminology, attain that *reformatio* of his soul which made him the equal of the prelapsarian Adam.

Needless to say, Dee’s marginalia cannot give us more than a glimpse of how he interpreted *De mysteriis*. It is clear, however, that he recognized numerous parallels between Iamblichus’ views and those of his own. But, like Ficino, Dee found Iamblichus’ rejection of image magic unwarranted and in *Monas hieroglyphica* he fused two genres of magic that Iamblichus insisted on keeping separate: on the one hand, the Monas symbol was a talismanic *gamaaea* possessing the power to attract celestial influences; on the other, it was a symbolic or hieroglyphic expression which enabled the adept to comprehend the mathematical principles of creation through intellection or *noesis*. Ulti-

⁸⁰² Iamblichus, *De mysteriis*, 7.4, in Ficino’s *Opera*, p. 1902: “Iam vero in quibus divinorum nominibus resolutionem suam divinitus acceperimus, in his totam habemus essentiae, potentiaeque, & ordinis divini notitiam ipso nomine comprehensam, atque etiam mysticam, & ineffabilem, simulque totam deorum imaginem in anima custodiamus, animamque per haec ad deos attollimus, elevatumque illis pro viribus copulamur.”

⁸⁰³ Iamblichus, *De mysteriis*, 7.4, in Dee’s copy fols. 19^v-20^r.

mately, the contemplation of the symbol induced a mystical ascent of the soul similar to that caused by the divine names invoked by the Egyptian theurgists — names which Dee also claimed to be incorporated in his Monas symbol. These names were also an important element in Dee's angelic conversations, in which they were employed as ritualistic means, invoked and inscribed on seals, to compel and adjure the divine hierarchy to oblige Dee's requests for knowledge.

A second reason for giving this lengthy account of *De mysteriis* is that the text provides an illustrative example of how pagan sources were not merely read, but in a sense appropriated by Renaissance scholars. Though Ficino was certainly aware of Augustine's condemnation of theurgy, his translation of Iamblichus' *synthemata* as "sacraments" posited a continuity between pagan ritual and Christian liturgy. By viewing theurgy as part of an ancient wisdom, the ritual practices of this art could be legitimized as conformable to Christian dogma in a manner reminiscent of the medieval *Ars notoria*. This narrative framework also made it possible to read Iamblichus' text as a philosophical treatise on an art whose practices were identical or similar to those described in the plethora of medieval literature on ritual magic. Given the influence of pseudo-Solomonic literature on Dee's angelic conversations, it is quite possible that he viewed these texts as describing ritual practices that were identical to those pagan rituals Iamblichus referred to in *De mysteriis*.

This ambition to appropriate pagan material by framing it in a narrative based on biblical historiography can be exemplified by Reuchlin's *De verbo mirifico*. Though the primary aim of Reuchlin's text was to present Jewish kabbalistic teachings as reconcilable with Christian conceptions, he also drew heavily on pagan sources, including Iamblichus' account of divine names in *De mysteriis*. To Reuchlin it was clear that the theurgic rites described by Iamblichus originally stemmed from the Hebrews: it was the Hebrews who were the true *barbari*, the people to whom God had revealed those divine names by which man could unite with God and see Him "face to face", as Adam and Moses had done. Hence, the Egyptian theurgy was a corruption of the true kabbalistic teachings revealed to Moses by God — teachings which could only be brought to perfection within a *Christian* framework.⁸⁰⁴ Significantly, Reuchlin describes man's deification

⁸⁰⁴ Reuchlin, *De verbo mirifico*, sigs. b5^r, c5^v, c6^v-c7^r, c8^r, d2^r. For a valuable discussion, see Zika, "Reuchlin's *De Verbo Mirifico* and the Magic Debate of the late

by means of divine names in terms that are closely reminiscent of the Christian view of the sacraments. Paraphrasing the Lord's words at the Last Supper, he states that by ritually invoking these names "man passes over in God, as also God dwells in man" — *homo migret in deum et deus habitat in homine*.⁸⁰⁵ The parallel is reinforced further when Reuchlin immediately afterwards makes an analogy between man's deification and the *transcorporatio* involved in natural digestion — a term evoking the sacramental words of transubstantiation spoken by the priest during the Mass.⁸⁰⁶

The magical power of language

To Reuchlin, however, the divine names were not only a means by which man could experience a mystical vision of God; it is also clear that he regarded them as *magical* in a decidedly operative sense of the word — as possessing the power to affect physical nature. This notion was a common one among Renaissance Neoplatonists. In his commentary on Plato's *Philebus*, Ficino wrote that "there is a living force in names, especially in divine names". Indeed, "so great is the divine force preserved in these names that even men far removed from God and wrong-doers [*malefici*] can work miracles by them".⁸⁰⁷

From a superficial point of view, this belief in the magical power of divine names rested on the theory of "natural" signification put forth in Plato's *Cratylus*. By properly representing the essence of a thing, a name contained and embodied the very power, or *virtus*, of the object it designated. In the *Philebus* commentary, Ficino explicitly referred to this view when claiming that "a name is some of the power of the thing itself". Hence, "God's names are like images or sunbeams of God Himself" and we must "worship both God and God's sun-

Fifteenth Century".

⁸⁰⁵ Reuchlin, *De verbo mirifico*, sig. c5^v. Cf. John 6: 56-57: "caro enim mea vere est cibus et sanguis meus vere est potus qui manducat meam carnem et bibit meum sanguinem in me manet et ego in illo". This parallel is pointed out by Zika, "Reuchlin's De Verbo Mirifico and the Magic Debate of the late Fifteenth Century", p. 121.

⁸⁰⁶ Reuchlin, *De verbo mirifico*, sig. c5^v: "Porro sicut in naturali digestionem virtus caloris est, quam cognoscimus, et adhuc virtus transcorporationis recondita, quam ignoramus, ita in hoc divinissimo in deum transitu verba quaedam sunt, quae cognoscimus, et quaedam, quae ignoramus."

⁸⁰⁷ Ficino, *The Philebus Commentary*, pp. 142/143.

beams, the powers, the images lying concealed in the significance of names”.⁸⁰⁸

But the Cratylan language view was only one of many elements underlying the belief in the magical powers of language. Medieval scholars like al-Kindi and Roger Bacon attributed words and voices magical efficacy on quite different grounds, independently of both Plato's *Cratylus* and the biblical narrative of Adam's naming of the animals. These medieval views figure prominently in Renaissance discussions of magical language, often associated with kabbalistic, Hermetic and patristic conceptions of the divine Word, as well as Neoplatonic accounts of sympathetic magic. Despite the tendency among modern historians to focus on the belief in “natural” signification when trying to explain why words and writing were attributed magical powers, there was, in other words, no coherent and monolithic theory supporting this belief. Instead, we find a range of differing views, sometimes fused into complex and heterogeneous philosophical compounds. Like all Renaissance magic, the magic of language was a syncretistic rather than systematic concept.

In none of these Renaissance accounts of magic, however, can we find anything to support the simplistic view commonly proposed in modern scholarship that words, by signifying “naturally”, were conceptually “reified” in a sense that posited an “identity” between words and the things they designated.⁸⁰⁹ Such a misrepresentation of Renaissance magic not only reduces a complex philosophical discussion to a mere categorial fallacy; more importantly, it fails to recognize the crucial role ascribed to the human soul in these accounts. If the belief in the magical power of words had a conceptual core, it was not the correspondence between words and things, but the capacity of the human soul to use language as a medium of power. As Agrippa succinctly put it when discussing the magical power of divine names:

... sacred words have not their power in magical operations from themselves, as they are words, but from the occult divine powers working by them in the minds of those who by faith adhere to them; by which words the secret power of God as it were through conduit pipes, is transmitted into them, who have ears purged by faith, and by most pure

⁸⁰⁸ Ficino, *The Philebus Commentary*, pp. 138/139-140/141.

⁸⁰⁹ See my discussion in the “Introduction” above.

conversation and invocation of the divine names are made the habitation of God, and capable of these divine influences.⁸¹⁰

Divine names were thus dependent on the human soul to be magically efficacious. Rather than being powerful in themselves, these words acted as “conduit pipes” — *canales* — of the divine powers they designated, infusing these powers into the human soul. Echoing Reuchlin’s Christian terminology, Agrippa describes these divine names as “sacraments and vehicles of divine omnipotence”, making our soul the habitation of God and enabling it to make use of his powers for magical purposes.⁸¹¹

It is indeed plausible that Reuchlin was one of Agrippa’s sources when formulating this passage. As Reuchlin repeatedly pointed out in *De verbo mirifico*, man was not in himself capable of magical acts. When we claim that those men who are filled with the spirit of God can perform wonders, it is actually God who performs these wonders through man.⁸¹² This was made possible by the fact that man was an *imago Dei*, a creature made in the likeness of God. As Reuchlin wrote, it was the “kinship” (*consortium*) between the divinity and the human mind that enabled God to use man as an “instrument” of his power.⁸¹³ But to be used as such an instrument of divine power, man had to restore that closeness to God we lost at the Fall, that untainted image of the divinity within our soul we possessed before our *deformatio*. For this reason God had given us sacred names by means of which “we are transformed into God and transcend our human nature”.⁸¹⁴

The idea that God had chosen language as his particular medium of power was directly related to the notion of *logos* as having three interrelated meanings or manifestations: as Reuchlin stressed, the term *logos* did not only designate the divine Mind and the human

⁸¹⁰ Agrippa, *Three Books of Occult Philosophy*, III.11, p. 476.

⁸¹¹ Agrippa, *De occulta philosophia*, p. 205: “Sunt enim divinae omnipotentiae sacramenta atque vehicula.”

⁸¹² Reuchlin, *De verbo mirifico*, sig. c4^v: “...ut dicamus spiritu dei plenos homines miracula facere, cum tamen ea praecipue deus ipse per hominem faciat”.

⁸¹³ Reuchlin, *De verbo mirifico*, sig. c5^r: “Consortium divinitatis cum mente humana facit, quod deus homine utitur pro instrumento...”

⁸¹⁴ Reuchlin, *De verbo mirifico*, sig. c5^v: “...transmutamur in deum et naturam humanam excedimus”.

reason, but also “word” and “speech”: “God is named *logos*. With the same term we designate ‘word’ [*verbum*]. The human reason is expressed with a similar name. God is comprehended by our mind, and born by the word.” Hence, just as God had chosen the human mind as his seat, he had chosen particular names in which he dwelled. By means of these names, man and God were tied together in a “bond of words” linking both to each other, “for God is the breath, the Word is what he breathes, man is the one breathing” — *deus enim spiritus, verbum spiratio, homo spirans*.⁸¹⁵

Again, we can see how the *Logos* doctrine made it possible to conceive of human language as a reflection of the divine Word. As an *imago Dei*, man did not only mirror God within his soul, as in a “glass darkly”; in our very ability to express the *logos* present in our minds by means of language, we reflected God’s capacity to externalize His power by means of the Word. As Reuchlin put it in an expressive simile, human speech was a “*rheuma logon, id est flumen rationum*” — a flow or “stream” of rational thoughts. Lkening our reason to the fount of this stream and the uttered word to the stream itself, he stated that whereas the fount agreed with God, the stream agreed with man. And just as there was nothing in the stream which was not previously in the fount, so there was nothing in speech which was not previously in the conception of the soul.⁸¹⁶ Hence, human language was an image of the *verbum Dei* — an image which when conceived in a mind “transformed into God” possessed the wonder-working power of God’s creative Word.

In this way, Reuchlin elegantly exploited the metaphorical nature of the *logos* concept, using its interrelated meanings to bolster the conception of man as a *magus* and language as a vehicle of divine power. A similar account can be found in Agrippa’s chapter on the

⁸¹⁵ Reuchlin, *De verbo mirifico*, sig. c5^v: “Convenit vero utrique parti hoc vinculum verborum: deus enim spiritus, verbum spiratio, homo spirans. Deus logos dicitur. Verbum eodem vocabulo nominatur. Humana ratio dictione simili exprimitur. Deus mente nostra concipitur, et verbo parturit. Quare sicut ipse mentis sedem insensibilem, ita et verborum sensibilem elegit mansionem, non omnium, non fortuitu cadentium, sed quae nobis divinitas primum instituit, non humana inventio cogitavit.” See also sig. f^r for a similar account.

⁸¹⁶ Reuchlin, *De verbo mirifico*, sig. c7^v: “Sic fons est ratio, cuius rivus erit verbum, quod in fonte convenit cum deo, et in rivo ac fluvio convenit cum homine. Utque nihil est in rivo, quin prius fuerit in fonte, sic iuxta Stagiritam Aristotelem nihil est in voce, quod non prius fuerit in animae conceptu...”

human soul in *De occulta philosophia*. Though Agrippa was clearly indebted to Reuchlin, his approach was even more syncretistic and in an illustrative passage he linked the magical properties of speech with the Hermetic notion of the Word as well as with the Augustinian conception of the “inner word”. By recognizing the image of God within our soul, we could form words which bore the “voice of God” within themselves:

... the Word is called by Mercurius the bright son of the mind; for the conception by which the mind conceives itself, is the intrinsical Word generated from the mind, namely, the knowledge of itself [*Conceptio autem, qua mens seipsam concipit, est verbum intrinsecum a mente generatum, scilicet suiipsius cognitio*]. But the extrinsical and vocal word, is the offspring and manifestation of that Word, and a spirit proceeding out of the mouth with sound and voice, signifying something; but every voice of ours, speech and word, unless it be formed by the voice of God is mingled with the air and vanisheth; but the Spirit and Word of the Lord remaineth, life and sense accompanying it. Therefore all our speech, words, spirit and voice have no power in magic, unless they be formed by the divine Word.⁸¹⁷

Again, the magical power of human speech is a result of its closeness to the divine Word. As it is the offspring and manifestation of the “intrinsical word” — that is, our conceptualization of the divine image within our soul — the “extrinsical” or uttered word turns into a vehicle of the “Spirit and Word of the Lord”.

Both Reuchlin and Agrippa frequently point out that the true cause of all magic is the “voice of God”, *vox Dei* — an expression which nicely captures the metaphorical conflation of speech and Word. The phrase stems from Pico della Mirandola’s *Conclusiones*, in which it is stated that voices and words are magically efficacious only insofar as they are “formed by the voice of God”, for this was the means by which nature first exercised magic.⁸¹⁸ These conclusions are

⁸¹⁷ Agrippa, *Three Books of Occult Philosophy*, III.36, p. 582; *De occulta philosophia*, p. 288.

⁸¹⁸ Pico della Mirandola, *Conclusiones*, ‘Conclusiones Magice numero XXVI’, no. 19, pp. 79: “Ideo voces et verba in magico opere efficienciam habent, quia illud in quo primum magicam exercet natura, vox est Dei.”; and no. 20, p. 80: “Quelibet vox virtutes habet in magia, in quantum Dei voce formatur.” Cf. Reuchlin, *De verbo*

presented as brief assertions without a wider context, and Pico's exact intentions remain obscure. It is clear, however, that he viewed the "voice of God" as present in man's prelapsarian tongue, claiming that names have no magical virtues unless they are "Hebrew, or closely derived from it", a formulation which Reuchlin echoed verbatim in *De verbo mirifico*.⁸¹⁹

Although the notion of language as magically powerful had its fundamental basis in the conception of man as possessing the capacity to act as an instrument of the "voice of God", the "Platonic" language view remained an important element in these discussions. This view of "natural" signification was, however, seldom if ever, invoked simply to posit a correspondence between word and thing. An illustrative example is provided by Agrippa's discussion of "the virtue of proper names", which drew heavily on Ficino's commentary on Plato's *Cratylus*. Agrippa introduces his account by claiming that such "proper names of things" — *propria rerum nomina* — are necessary in magical operations. He then goes on to state that the "natural power of things" first proceeds from the object to the senses, and via the imagination it reaches the human mind, where it is first conceived and finally expressed in the form of voices and words. Hence, "the Platonists" say that in such words "the very power of the things lies hidden under the form of the signification as it were some kind of life" — *ipsam vim rei sub significationis forma quasi vitam aliquam latere*. This power is first "conceived in the mind as it were through certain seeds of things [*semina rerum*]", then uttered as voices or words, and finally kept in writing. And since such names are ruled by the "essence of the thing signified", they can rightly be called "certain rays of things, everywhere present at all times, keeping the power of things".⁸²⁰

Again, it is clear that the human mind was attributed a crucial role in transmitting the power inherent in a thing to the name designating it. By intellectually conceiving (*concipio*) of the essence of the

mirifico, sig. c8^v; and *On the Art of the Kabbalah*, pp. 268/271, 334/337.

⁸¹⁹ Pico della Mirandola, *Conclusiones*, 'Conclusiones Magice numero XXVI', no. 22, p. 80: "Nulla nomina ... in magico opere virtutem habere possunt, nisi sint hebraica, vel inde proxime derivata." Cf. Reuchlin, *De verbo mirifico*, sig. c5^v: "Barbara vero dicuntur Hebraica vel proxime inde derivata."

⁸²⁰ Agrippa, *Three Books of Occult Philosophy*, I.70, p. 213; *De occulta philosophia*, pp. 90-91. For the matter of clarity, I have here modified the English translation. Cf. Ficino's *Cratylus* commentary, in *Opera omnia*, especially p. 1310, from which this account is derived.

object, we could form words in which the power of the thing was enclosed “as it were some kind of life”. In the preceding chapter, Agrippa describes such a conception of the mind as an “internal word”, *internum verbum*, formed by the “declarative reason”, *ratio enunciativa*. Invoking the familiar notion that “*logos* in Greek signifies both reason, speech, and word”, he states that when this internal conception of the mind is uttered, the “corporeal voice” is “coupled” to the mind and intellect. Hence, words are not only carrying the conception of the mind with them,

...but also the virtue of the speaker [*virtus loquentis*] with a certain efficacy unto the hearer, and this oftentimes with so great a power, that sometimes they change not only the hearer, but also other bodies that have no life.⁸²¹

In this latter passage, Agrippa is not solely referring to “proper” names that signify “naturally”. Instead, he seems to acknowledge the possibility that even conventional words can bear magical powers by carrying the virtue of the speaker within themselves. This is a notion we recognize from medieval scholars like al-Kindi and Roger Bacon, with whose works Agrippa was intimately familiar. In *De radiis*, al-Kindi asserted that when we conceive of a corporeal thing in our imagination, it receives an actual existence in our imaginary spirit. Hence this conception also emits rays that affect the exterior world in a manner similar to the thing of which it is an image.⁸²² And since speech is an externalization of mental concepts, uttered words produce rays which operate in the elemental world just as other individual things do.⁸²³ Thus, natural signification was not a necessary condition if words were to possess magical powers. Instead, it was the belief and will of the speaker that infused power into the utterances. As al-Kindi says when discussing how we use in adjurations certain names which are assumed by human application for signifying higher powers, such names have a certain magical efficacy even when they

⁸²¹ Agrippa, *Three Books of Occult Philosophy*, I.69, p. 211; *De occulta philosophia*, p. 90.

⁸²² al-Kindi, *De radiis*, p. 231: “Preterea cum homo concipit rem aliquam corpoream ymaginatione, illa res recipit actualem existentiam secundum speciem in spiritu ymaginario. Unde idem spiritus emittit radios moventes exteriora, sicut res cuius est ymago.”

⁸²³ al-Kindi, *De radiis*, p. 233: “...voces in actum producte radios faciunt sicut et alie res actuales, et suis radiis operantur in mundo elementorum sicut et alia individua.”

signify improperly. For like all uttered names, they affect matter by their rays, and the more the mind of the speaker believes and intends to name these higher powers, the more powerful are the words.⁸²⁴

Al-Kindi's views were well-known in the Renaissance, and in Agrippa's syncretistic account they appear alongside the notion that words possess magical power by signifying naturally. But Agrippa was also keen to make a distinction between these two forms of word magic: only those "original names" that were "rightly imposed" on things and signified "by nature" (*naturaliter*) had "a natural activity". Words that signified by convention (*ad placitum*), by contrast, did not possess magical power by virtue of their signification, but by being "certain natural things in themselves".⁸²⁵ As such "natural things", they partook in the universal play of sympathetic relationships and could be employed as a means of magic in an entirely natural sense:

... the words of men are certain natural things; and because the parts of the world mutually draw one to the other, therefore the magician invoking by words, works by powers fitted to nature, by leading some by the love of one to the other...⁸²⁶

Here Agrippa conflates al-Kindi's conception of words as natural entities with the sympathetic magic described in the Neoplatonic works of, for instance, Plotinus and Synesius. In *De insomniis*, Synesius described how "voices, substances and figures" could be used as "tokens" by means of which the magician could attract forces from other parts of the universe. Underlying this notion was the Neoplatonic view of the universe as a single "living creature", in which every entity affected the entire universe by virtue of its very likeness to other entities. This was also the notion Ficino relied on in *De vita*

⁸²⁴ al-Kindi, *De radiis*, p. 245: "Nomina ergo ipsum significandum assumpta hominum impositione, licet improprie, habent tamen effectum aliquem cum actualiter proferentur, sicut et alia nomina rebus imposita. Mutant enim materiam suis radiis, tanto ad movendum efficacioribus quanto mens proferentis rem maiorem credit et intendit nominare."

⁸²⁵ Agrippa, *Three Books of Occult Philosophy*, I.74, p. 223; *De occulta philosophia*, p. 95: "...sola enim nomina primaria, quae sunt recte imposita, quia significant naturaliter, activitatem habent naturalem; non sic est de his quae significant ad placitum, quae activitatem non habent ut significativa, sed ut in se res quaedam naturales."

⁸²⁶ Agrippa, *Three Books of Occult Philosophy*, II.60, p. 430.

coelitus comparanda when describing how words could be used to “imitate” celestial virtues, thereby drawing these virtues down to the terrestrial realm.⁸²⁷

Despite the apparent differences between the Neoplatonic views and al-Kindi’s conception of words as natural entities that emitted rays which affected the surrounding world, they were commonly conflated in Renaissance magic. Ficino explicitly associated al-Kindi’s views with the Neoplatonic notion of *illices* or *illecebrae*.⁸²⁸ In a similar manner, Dee treated al-Kindi’s notion of rays as compatible with the Neoplatonic view of the universe as a “lyre” whose “strings” could be set in “vibration” by the magician who knew how to use the sympathetic forces inherent in the cosmos. What these views had in common was that they described an entirely natural form of magic, relying on forces everywhere present within the universe. Words did not have to be “conduit pipes” of divine powers to have magical efficacy, nor did they have to signify “naturally” to affect physical reality. Words, like all things, were magical entities merely by having an actual existence in the world.

This is not to say that this view of word magic was generally accepted. To a scholar like Reuchlin, for example, the idea that conventional language could be magically powerful was in blatant opposition to his fundamental thesis that all magic stemmed from “the voice of God”. Rejecting the magic of Roger Bacon, Peter of Abano and such works as the medieval *Picatrix*, Reuchlin therefore argued that magical power was present solely in those ancient languages that were closely akin to man’s prelapsarian tongue.⁸²⁹ Agrippa’s position was less clear-cut, for while describing all words, even conventional ones, as magically efficacious, he nonetheless maintained that words “have no power in magic, unless they be formed by the divine Word”. Inconsistent as it may seem, Agrippa did not consider these views mutually exclusive. Instead, he once again invoked the *logos* doctrine to bolster a conception of sympathetic word magic as a reflection of God’s creative Word. Having described words as “certain natural things” which responded to the sympathetic forces in the cosmos, Agrippa went on to describe the Word as the “cause of causes” on which all natural processes ultimately depend. In effect,

⁸²⁷ See the discussion above, pp. 280-285.

⁸²⁸ Ficino, *Three Books on Life*, 3.21, pp. 354/355.

⁸²⁹ Reuchlin, *De verbo mirifico*, sigs. c^{r-v}.

the divine Word was the ultimate power behind all magic, even natural and sympathetic magic. When man used words to manipulate these natural forces, he acted as God's image on earth, exercising power by means of his speech just as God exercised power by means of his Word:

The Word is the image of God, the active intellect is the image of the Word; the soul is the image of this intellect; and our word is the image of the soul, by which it acts upon natural things naturally, since nature is the work thereof.⁸³⁰

At the hub of both Reuchlin's and Agrippa's argument was the conception of man as an *imago Dei* and speech as a reflection of the divine Word. But by emphasizing different aspects of the *logos* concept, and by couching the metaphoric relation between man and God in slightly different terms, they used this conception to bolster widely different views. In Reuchlin's account, the emphasis lay on the supra-natural and divine aspect of the Word. The "voice of God", more or less divorced from nature, was speaking solely through the mind that had been reformed to its original clarity and through those languages which properly reflected God's Wisdom. In Agrippa's account, by contrast, the emphasis lay on the Word's presence in nature, or more accurately, on nature as an expression of the Word. Even in his fallen condition — that is, as part of nature — man was an image of God and his speech a faint reflection of the Word. But, being formed in a soul which no longer bore a true resemblance to the Creator, our words did not possess divine powers as those sacred tongues which were akin to Adam's perfect speech did. Instead, they were "natural things" which "acted upon natural things naturally".

Dee, the *medicina Dei* and the end of the world

It is difficult to ascertain whether Dee acknowledged the possibility that words could be magically efficacious by acting "naturally" on the world. Though he relied heavily on al-Kindi and Roger Bacon in *Propaedeumata aphoristica*, he never discussed the virtue of words in this work. Nor are his annotations to Bacon's *Epistola* sufficiently

⁸³⁰ Agrippa, *Three Books of Occult Philosophy*, II.60, p. 431; *De occulta philosophia*, p. 208: "Verbum igitur id est simulacrum Dei, intellectus agens est simulacrum Verbi, anima est simulacrum intellectus, verbum autem nostrum est simulacrum animae, per quod agit in res naturales naturaliter, quoniam natura opus illius est."

clear to give us a picture of his own views on this issue.⁸³¹ The only work of his in which the magical power of language was a prominent feature was that unparalleled venture which was never intended for publication — his angelic conversations. As we have seen throughout the present study, the Adamic language revealed to Dee and his assistant Kelley in these conversations was described as closely akin to the divine Word — indeed, sometimes not merely as akin, but as identical to the *verbum Dei*. When introducing Dee and Kelley to the book containing the tables of Adamic letters, the angels solemnly proclaimed: “Beholde, Beholde, yea let heaven and earth behold: *For with this they were created: and it is the voyce and speche of him, which proceded from the first, and is the first...*”⁸³² The point did not escape Dee, who noted “The boke The first Language of God Christ” in the margin, an off-hand remark which forestalled the angels’ naming of this book as the *Liber Logaeth*, “The Book of the Speech of God”.⁸³³

These tables of letters, containing the “mysteries of the Word of God”, were not merely a means by which Dee and Kelley could gain knowledge of Adam’s prelapsarian language; from the very outset of their revelations, the angels were keen to stress the tangible power present in these tables, a power they called the *medicina vera* or *medicina Dei*, the “true medicine” or the “medicine of God”. Whatever this “medicine” was — and the angels were decidedly vague on this point — it had the power to cure the “sickness” that had affected man and the world after the Fall. Proclaiming “My medicine (which is his) will in truth heal everything” when first presenting the tables to Dee and Kelley,⁸³⁴ the angel Michael gave a vivid account of Adam’s Fall and the *deformatio* of his mind. Created in the likeness of God, Adam’s “fote slipping hath dassed his hed in peces, and it became dark: vntyll agayn, the Medicine which I haue browght, revived his slombering”. By a “taste of the sprinkling of this vessel”, the angel said, man’s mind would be healed and restored to its original clarity; “the dignitie and worthynes of Mans Memorie” be “eleuated and

⁸³¹ See Bacon, *Frier Bacon, his Discovery of the Miracles of Art, Nature and Magic*, pp. 7, 14-15, where words are described as naturally efficacious, carrying the *species* of the speaker with them. Dee’s notes to these passages are confined to occasional repetitions of the key terms, like “Orationis” and “species”.

⁸³² Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 234-235.

⁸³³ Dee, *A True & Faithful Relation*, p. 19.

⁸³⁴ Whitby (ed.), *John Dee’s Actions with Spirits*, II, p. 224: “Medicina verò mea (quae eius est) omnia resanabit.”

lifted yp” from “the earth vnto the heauens: from the heven, vnto his seat: from his seate, into his Diuinitie”.⁸³⁵ By a taste of God’s “true medicine”, man would once again see Him face to face, as the prelapsarian Adam had done when dwelling in the Garden of Eden.

But it was not only man that needed to be healed. Throughout the conversations, the angels stressed that the world itself was “sick” and “corrupted”, bereaved of its original perfection, and steadily deteriorating until it one day would reach its final end. “The Earth laboureth as sick, yea sick unto death”, the angels proclaimed; “The Waters pour forth weepings, and have not moisture sufficient to quench their own sorrows. The Aire withereth, for her heat is infected.”⁸³⁶ Nature was writhing in pain and agony, subject to the destructive powers of Satan who had been unleashed upon the world when Adam sinned: “Woe be unto the earth therefore: For, it is corrupted. Woe be unto the earth, for she is surrendred to her adversary: Woe be unto the earth, she is delivered into the hands of her enemy: Yea, Woe be unto the sons of men, for their vessels are poysoned.”⁸³⁷

Again, we find biblical overtones in the angelic revelations which must have given them a familiar ring to Dee. In Isaiah, for example, we read that “the earth mourneth and fadeth away, the world languisheth and fadeth away, the haughty people of the earth do languish.”⁸³⁸ As Deborah Harkness has shown, such passages formed the basis for a common belief in the world’s gradual “decaying” or “aging”. The theme recurs frequently in patristic and medieval writings, and in the early modern era the belief in nature’s deterioration was widespread, fomented by the apocalyptic sentiments of the period. Diseases, storms, droughts, cloudbursts and strange heavenly phenomena were all seen as symptoms of a disrupted order, as portents of the impending day of doom.⁸³⁹ But there was also a cure for this deterioration of the world, a cure truly capable of healing everything — the *medicina vera*, now to be revealed to God’s chosen ones, the notable scholar John Dee and his assistant Edward Kelley.

Though Deborah Harkness has recently treated this theme in much greater detail than is possible in the present study, there are

⁸³⁵ Whitby (ed.), *John Dee’s Actions with Spirits*, II, pp. 224-226.

⁸³⁶ Dee, *A True & Faithful Relation*, p. 4.

⁸³⁷ Dee, *A True & Faithful Relation*, p. 77.

⁸³⁸ Isaiah 24:4

⁸³⁹ Harkness, *John Dee’s Conversations with Angels*, especially pp. 64-71.

reason to recapitulate some of her findings, if only to give a greater emphasis to the continuity of Dee's strivings. Despite the differences between Dee's "Hieroglyphic Monad" and his later attempts to reconstruct the Adamic language through angelic intermediation, his notions in *Monas hieroglyphica* forestalled his angelic conversations in a number of respects. Though different as a means, they were essentially aimed at the very same end — at the restitution of nature and the redemption of man.

The parallels stand out clearly when we consider the role attributed to alchemy in the angelic revelations. Throughout the angelic conversations, alchemy was treated as a healing and restorative art whose secrets had once been known by the prelapsarian Adam and the biblical sages. Like all human knowledge, the alchemical art had since deteriorated, only preserved in symbolic and allegorical accounts whose true meaning could only be grasped by those who were instructed orally by the *initiati*, or subject to divine inspiration: as Dee noted in Petrus Bonus' *Pretiosa margarita novella*, aided "Eyther by M[ou]th or reuelation".⁸⁴⁰

Before his acquaintance with Edward Kelley, Dee had clearly considered both of these options. In a long introduction to his angelic diaries he recounts how he had raised heartfelt prayers to God, beseeching Him to put either some pious and wise philosopher in his way, or, if there was no man living on the earth who would be fit for such a task, to send his divine angels to instruct him.⁸⁴¹ Once Kelley had been introduced, however, the stage was set for a drama of truly cosmic proportions. By mastering the tables of Adamic letters revealed by the angelic messengers, Dee and Kelley were not only to be made "perfect" in knowledge and understanding; by means of this *medicina Dei* they were to practice that true and consummate alchemical art which had been lost since Adam's Fall — an alchemy not merely capable of perfecting substances in the alchemist's earthly vessels, but the world entire.⁸⁴²

In presenting the *medicina Dei* as a cure for the deterioration affecting both man and nature after the Fall, the angelic revelations

⁸⁴⁰ London, Royal College of Physicians, shelfmark D 107/3, 7c), p. 87.

⁸⁴¹ Whitby (ed.), *John Dee's Actions with Spirits*, II, p. 6.

⁸⁴² For an excellent discussion of this, see Harkness, *John Dee's Conversations with Angels*, especially her chapter "Adam's Alchemy: The Medicine of God and the Restitution of Nature", pp. 195-214.

reflected the common notion of the alchemical *opus* as being of a dual nature, simultaneously producing a perfection of the elements and a redemption of the alchemist's soul. What set these revelations apart from common alchemical discourse was the sheer proportions that the art assumed in the final apocalyptic drama of the world. In the angelic conversations, alchemy was God's instrument in closing the circle of human history. In many of the visions recounted in Dee's angelic diaries we therefore find alchemical and apocalyptic imagery intricately woven together. An illustrative example is a session held in May 1582.⁸⁴³ Seated by the crystal stone, Kelley relates to Dee how he sees a "Glorious man" carrying a little bird "as byg as a sparrow". Moments afterwards, the bird grows into a swan, "very beutifull: but of many cullours". The man holds forth a second and equally beautiful bird, whereupon he seems to conjoin them by their wings, "as thwogh he yoked them". A dark voice proclaims "*The world is of Necessitie: His Necessitie is gouerned by supernaturall Wisdome*. Necessarily you fall: and of Necessitie shall rise again" — a reference to the inevitability of man's Fall and subsequent redemption. Then, relates Kelley, the two birds "*seme to grow to a huge bigness, as byg as mowntaynes: incredibly byg*". Hovering in the air, their wings seem to touch the sky until suddenly one of them starts to take stars into its bill, which the other bird takes from the other "to place them again in the Skye" — "And this they did very often: and in diuerse places of the heuen, with great celeritie." Then the scenery shifts, and the two birds fly over large cities and strike down mighty people "like bishops, and Princes and Kings" with their wings. Simple folk, however, "like beggers, lame and halt, Children, and old aged men, and women, seemed to pass quietly, vntowched and vnouerthrowen of these two Byrds".

So far the vision was based on common apocalyptic imagery. As Deborah Harkness has pointed out in her analysis of this vision, the swan was a common Christian symbol of man's soul and its salvation through its ascension to the kingdom of heaven.⁸⁴⁴ As God's chosen ones, Dee and Kelley — symbolized by the two swans — were to gain power over heaven and earth, overthrow the old world order and ultimately "establish a Kingdom with righteousness in the earth", as

⁸⁴³ Whitby (ed.), *John Dee's Actions with Spirits*, II, pp. 130-138.

⁸⁴⁴ Harkness, *John Dee's Conversations with Angels*, p. 209.



Fig. 34. The alchemist sows the seeds of resurrection. From Mylius, *Philosophia reformata*, 1622.

the angels phrased it on another occasion. As the vision unfolds, however, it shifts to a grisly and enigmatic imagery, typical of alchemical symbolism. The two birds begin to toss an old man's head, "heare and all on, very much wythered", between them with their feet. Suddenly the head breaks open and within it "appeared (in steede of the braynes) a stone, rownd, of the bignes of a Tenez ball of 4 cullours, white, black, red, and greene". These colours were commonly associated with the alchemical process, suggesting that the stone appearing within the head was the Philosopher's Stone. And indeed, as the two birds start to eat the stone they turn into men, made entirely of gold — "Theyr teeth are gold, and so likewise theyr hands, feete, tung, eyes, and eares". The two golden men were carrying bags full of gold by their sides, and they "seemed to sow it, as corne, going or stepping forward, like *Seedmen*". Here the vision ended, and in a concluding monologue the angel Michael explained that from this parable Dee and Kelley could learn "what you are, what you were, what you shalbe".

To someone steeped in alchemical symbolism, as Dee undoubtedly was, this imagery was not difficult to interpret. In a sense, this latter part of the vision both repeated and complemented the earlier vision of the flying swans. Once granted the Philosopher's Stone — the *medicina Dei* — Dee and Kelley would be spiritually perfected, symbolized in the vision by the two swans' transformation into golden men. Turned into such "perfect men", they would sow the seeds of rebirth, like "Seedmen" wandering over the earth, raising the world from its corruption. As Deborah Harkness points out, this latter image was not uncommon in alchemical emblematics. For example, in Johann Daniel Mylius' *Philosophia reformata* (1622) we find a vivid illustration of how the alchemist sows his seeds of gold while an angel blows a trumpet, raising the dead from the earth (fig. 34) — a evocation of the biblical words "for the trumpet shall sound, and the dead shall be raised incorruptible, and we shall be changed".⁸⁴⁵ As in Dee's angelic conversations, the picture presents the alchemical *opus* as intimately linked to the final apocalypse and the redemption of the human soul.

The belief that not only man, but the world itself would undergo a reformation when history reached its final end was clearly common in the early modern era. However vain and haughty Dee's conviction of his own role in this cosmic drama may seem, his belief in the power of the *medicina Dei* to heal a corrupted and decaying nature had support in an established tradition drawing on a variety of ancient sources. For example, in his copy of the widely read *Asclepius* we find the note "Reformatio mundi" next to a passage recounting how God one day will restore the world to its original order: "And this will be the geniture of the world: a reformation of all good things and a restitution, most holy and most reverent, of nature itself, re-ordered in the course of time".⁸⁴⁶

⁸⁴⁵ 1 Cor. 15:52. For Harkness' discussion, see *John Dee's Conversations with Angels*, pp. 209-210. Additional examples can be found in Klossowski de Rola's excellent survey of alchemical imagery, *The Golden Game: Alchemical Engravings of the Seventeenth Century*. See, for instance, the emblems in Michael Maier's *Tripus aureus* and *Atalanta fugiens*, reproduced in *The Golden Game*, pp. 74 and 122. For an elucidating analysis of this imagery, see also de Jong's *Michael Maier's Atalanta Fugiens: Sources of an Alchemical Book of Emblems* pp. 81-87.

⁸⁴⁶ I am following Brian Copenhaver's translation, in *Hermetica*, p. 83; in Dee's copy (Washington DC, Folger Shakespeare Library, shelfmark BF 1501 J2 Copy 2 Cage), fol. 138r: "...haec enim mundi genitura: cunctarum *reformatio* rerum bonarum: &







	Existens ante Elementa.	Adam Mortalis Masculus & Femina.	Mortifi- cans	Adumbrat- us.	Natus in Stabulo.
	Elementaris economia.	Elementalis Genealogie Consum- matio.	Crux.	Crux.	Holocau- stum in Cruce
	Existens post Elementa.	ADAM IMMORTA- LIS.	Vitificans.	Manifestif- simus.	Rex Regum Ubique.
Conceptus Singulari In- finitia.	Potentie Semina.	Creatio Hylea.	Matrimo- nium Ter- restre.	Principium	
Passus & Se- pultus.	יהוה Virtus Denaria.	Depuratio Elementalis.	Crucis Martyriū.	Medium.	
Resurgens, propria vir- tute.	Glorie Triumphus.	Transfor- matio.	Matrimo- nium Divinum.	Finis.	

Fig. 35. The dual nature of the alchemical process. From Dee, *Monas Hieroglyphica*, 1564, fol. 23^r.

Though Dee's belief in a coming "reformation of the world" first emerged with salience in the angelic conversations, there are reasons to believe that this notion lay implicit in his earlier *Monas hieroglyphica*. Incorporating the cross with the alchemical symbols of Sol and Luna, the Monas symbol evokes the common *crux invicta* theme, where the juxtaposed cross, sun and moon symbolize Christ's cosmic triumph and sovereignty. Towards the end of this work Dee also reproduces a diagram which lucidly illustrates the dual nature of the alchemical process (fig. 35). Evocative of the Lord's words "I am Alpha and Omega, the beginning and the ending",⁸⁴⁷ the diagram presents both the transmutation of matter and man's spiritual redemption as a transition from alpha to omega. Though Dee's brief

naturae ipsius sanctissima & religiosissima restitutio, peracto temporis cursu..."; Dee's emphasis.

⁸⁴⁷ Rev. 21:6. See also 1:8 and 22:13.

captions are deliberately enigmatic, in many cases only letting us guess at the intended meaning, others are sufficiently clear to let us comprehend the general meaning of the diagram. In the lower half of the diagram, representing the alchemical transmutation of matter, we find the process from *principium* to *finis* schematically expressed by a number of synonymous or complementary tags: for example, as a process beginning with the creation of prime matter (*Creatio Hyles*) and concluding with its *transformatio* into quintessence. The caption *Matrimonium terrestre* recalls Dee's description of the Monas symbol as a magical talisman which united or "married" the alchemical "earth" to the astral influences. At the consummation of the alchemical work, this "earthly marriage" gives way to a "divine marriage" which, as indicated at the far left, revives the matter to its proper virtue. Suggestively, this final stage, when the powers inherent in the alchemical "seed" has been fully realized, is also labelled as *Gloriae Triumphus*, "the Triumph of Glory".

Turning to the upper half of the diagram, we find the religious and eschatological connotations more clearly brought out. In this scheme man's spiritual redemption is presented as a corresponding transformation, beginning with the creation of *Adam mortalis* and concluding in *ADAM IMMORTALIS*. To the far right we also find the nativity of Christ — the second Adam — represented with the words *natus in stabulo*, "born in the stable". Having died on the cross, Christ would ultimately become that "King of Kings" who governs the entire cosmos. The conflation of religious and alchemical symbolism is here illustrated by Dee's use of the cross. In both halves of the diagram the cross is inserted as an intermediary stage between the "beginning" and the "ending". But if the cross in the lower half represents the elements (in accordance with Dee's analysis of the Monas symbol), it is in the upper half used as a representation of the Christian faith. It was through Christ's death on the cross that man would find redemption and the world be restored to perfection, both being made one with the Creator.⁸⁴⁸

In weaving together alchemical and Christian eschatological imagery, Dee was following a long-standing tradition in alchemical

⁸⁴⁸ Cf. for instance Colossians 1:19-20: "For it pleased the Father that in him should all fullness dwell; And, having made peace through the blood of his cross, by him to reconcile all things unto himself; by him, I say, whether they be things in earth, or things in heaven."

literature. The stages of the alchemical process were commonly likened to Christ's nativity, crucifixion and resurrection, and both the Creation and Last Judgement were often described in alchemical terms. This symbolism also gained considerable popularity outside alchemical and "occult" circles. Even a person like Martin Luther, whose interest in the technicalities of alchemy was clearly half-hearted, remarked that the "secret" and "exceedingly fine" significance of alchemy, "touching the resurrection of the dead at the last day", could have a valuable pedagogical purpose. For just "as in the furnace the fire extracts and separates from a substance the other portions, and carries upward the spirit", so "God at the day of judgement, will separate all things through fire, the righteous from the ungodly".⁸⁴⁹ In alchemical philosophy, however, this imagery was no mere poetical elaboration. The conceptualization of alchemy and eschatology in terms of each other not only served a pedagogical purpose, but afforded a way of understanding alchemy and its role in human history. In Dee's heavily annotated copy of Petrus Bonus' *Pretiosa margarita novella* we find this role clearly laid out: by knowing the secret of the Philosophers' Stone, the ancient sages had been able to foresee how God one day would become man, how man one day would become one with God, and how this world will face a day of judgement and consummation, a day when the bodies will be resurrected and every soul reunited to an incorruptible and perfect body.⁸⁵⁰

A similar conception of the eschatological implications of alchemy can be found in Thomas Tymme's commentary on Dee's *Monas hieroglyphica*. In Tymme's view — as in Dee's own — the Monas symbol comprised the entire knowledge once possessed by Adam and the ancient sages. Foremost among these sciences was alchemy, a science which gave us knowledge of "caelestiall & supernaturall things". By mastering this art, wrote Tymme, the "ancient Wisemen" had been able to comprehend both "the wonderfull powre of God in the creacion of all things: & their finall purification by alteracion through the fire in the day of doom". Just as the cosmos had been brought forth by "God's alchemy", so its final end would be

⁸⁴⁹ Luther, *Table talk*, DCCCCV, as quoted in Linden, "Alchemy and Eschatology in Seventeenth-Century Poetry", p. 9.

⁸⁵⁰ Petrus Bonus, *Introductio in divinam chemiae artem* (London, Royal College of Physicians, shelfmark D 107/7, 7c), pp. 99-102.

a result of an alchemical *transformatio*. For on the day of the apocalypse “GOD will separate all the unclean faeces, & corruption that is in the foure Elements & bring them to a Christalline cleerenes”. Contrary to common belief, claimed Tymme, God will not destroy the world by fire on the day of doom. Instead, he will “change all things & make them Christalline, & the 4 elements shalbe perfect, simple, & fixed in them selves, and they shalbe all a Quintessence”.⁸⁵¹

In a similar manner Oswald Croll argued that the imperfections affecting both man and nature would be healed by means of alchemy. So powerful was this art that those philosophers who had fathomed the secrets of alchemy would attain “salvation of their own soule” and escape the destruction of “that Terrible day” when the world reached its end. Rather than subsuming to the flames of destruction, these wise men would “remaine like a pure, deare, incorruptible and fixed Essence in a serene resplendent Chrystalin Earth, and be for ever with the happy saved Ones, carryed upward like an Eagle, or as Smoak excited by Fire...”⁸⁵²

Though it seems that Croll never met Dee in person, he clearly regarded *Monas hieroglyphica* as a work of major importance.⁸⁵³ Like Dee, he considered the highest goal of philosophy to be man’s reformation and, ultimately, deification. The “[t]rue and sollid Phylosophy”, he wrote, is to “know GOD himselfe the maker of all things, and passe into him with a full image of his likenesse ... whereby thou mayest be transform’d, and made (as it were) a God...” But like Dee, Croll also believed that this highest stage of wisdom — the *mens adepta* — was unattainable without the grace of God. Referring to the ancient sages as the “Adept Philosophers”, he explained how they had been “raised up out of the sepulchre of their body” by divine grace. Hence,

they could open the Eyes of their Heart, and be turned to God in the Sabbath of their Heart by a separation of the Minde from Terrene obstacles in themselves, and see all

⁸⁵¹ Tymme, *A Light in Darkness*, pp. 23-24.

⁸⁵² I am quoting from the English translation of the ‘Praefatio admonitoria’ to *Basilica chymica*, entitled *Philosophy Reformed & Improved in Four Profound Tractates*, pp. 190-191 and 201-202. For the original Latin, see Crollius, *Basilica chymica*, pp. 92, 97.

⁸⁵³ See his references to the Monas symbol in *Philosophy Reformed & Improved*, pp. 179-180.

things in one by a most Blessed Spectacle, to wit, one simple (intuitive vision or) sight from within, a kind of an Essential touch of the Divinity, and to contemplate the beauty of the Chiefest Good in the Light of GOD as in the glasse of Eternity...⁸⁵⁴

Few passages capture the experience of occult “enlightenment” as succinctly and poetically as this. Croll was here drawing heavily on the patristic view of the *visio beatifica* of the reformed Christian. But, as so often in occult philosophy, the Christian conception of *reformatio* was also put on a par with pagan and Jewish mysticism, and in the following paragraph Croll stated that this beatific vision was identical to what “the *Jewes* call the kisse of Death”, which had also been described by Hermes in his chapter on the Monad.⁸⁵⁵

Though it is unclear whether Tymme and Croll had any knowledge of Dee’s angelic revelations, they clearly regarded his views in the earlier *Monas hieroglyphica* as intimately linked to eschatological notions. But if the *Monas hieroglyphica* indeed had an apocalyptic subtext, it also assumed a much more pronounced role in the angelic revelations. For despite the numerous parallels that exist between Dee’s views in *Monas hieroglyphica* and the angelic revelations, there remains a fundamental difference: whereas the Monas symbol was an attempt to restore a symbolic language by which man could gain knowledge of all sciences and ultimately attain a mystical ascent of the soul, the angelic conversations were God’s ultimate revelation of the Word, a revelation which coincided with His decision to bring the world to an end. And whereas the Monas symbol possessed the magical power to “marry” heaven to earth, it did not possess the power of the *medicina Dei* to heal the world entire, making both man and nature one with the Creator. In the angelic conversations, Dee and Kelley were not merely resuscitating the knowledge once possessed by the ancient sages — they were granted a unique position in human history as God’s appointed prophets of the coming apocalypse.

⁸⁵⁴ Crollius, *Philosophy Reformed & Improved*, p. 213; Crollius, *Basilica chymica*, p. 103: “...& Beatissimo Spectaculo uno videlicet ac simplici ab intra intuitu, Essentiali quodam Divinitatis contactu, Omnia videre in Uno & in Dei Lumine tanquam aeternitatis speculo contemplari pulchritudinem Summi Boni...”

⁸⁵⁵ Crollius, *Philosophy Reformed & Improved*, p. 214.

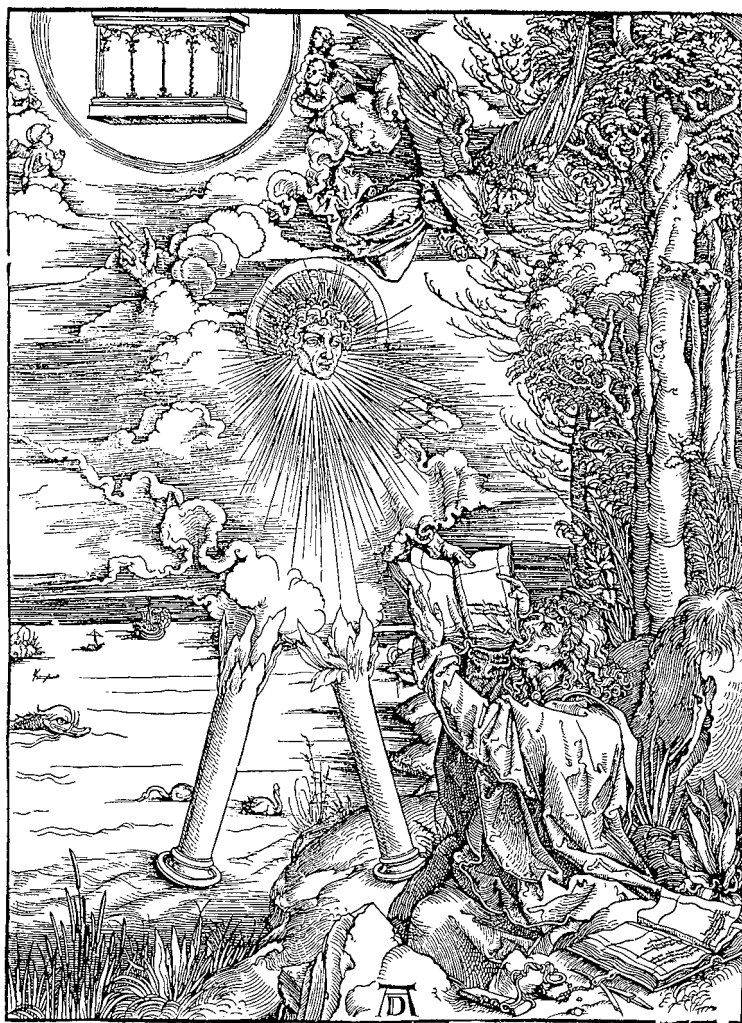


Fig. 36. John devouring the Word. Woodcut by Albrecht Dürer, 1498.

Dee's belief in their important role in the apocalyptic drama grew increasingly strong as time went by. During one of their very last sessions, held in May 1587, an angel appeared to Kelley where he sat by the "Table of Covenant" gazing into the crystal stone. Holding up a book, which she divided into two parts, the angel proclaimed that within a hundred days Dee and Kelley would be infused by the

Holy Spirit, making them “perfect” as Adam and the Apostles had been — “*For you are chosen of this last dayes, and such as shall be full of the blessings of God, and his spirit shall rest with you abundantly*”. When these hundred days had passed, the angel went on, she would “enter out of this Stone unto you”:

and you shall eat up these two books, both the one and the other: and wisdom shall be divided between you, sufficient to each man. Then shall your eyes be opened to see and understand *all such things as have been written unto you, and taught from above*. [...] *And you shall have power in the Heavens, and in the lower bodies*. [...] For even as the Sun looketh into all things from above, *so shall you into all creatures that live upon the earth*.⁸⁵⁶

The vision is suggestive of the Revelation of John, in which John envisages an angel “clothed with a cloud: and a rainbow was upon his head, and his face was as it were the sun, and his feet as pillars of fire”. Holding the Word in his hand, the angel commands John: “take it and eat it up; and it shall make thy belly bitter, but it shall be in thy mouth sweet as honey” (fig. 36).⁸⁵⁷

By literally devouring the Word, Dee and Kelley would become God’s appointed prophets in the last days of the world. Infused by the Holy Spirit and made perfect in knowledge and wisdom, they were chosen to execute God’s command upon earth, bringing it to its final end.

⁸⁵⁶ Dee, *A True & Faithful Relation*, ‘Actio Tertia’, pp. 26-27.

⁸⁵⁷ Revelation 10:1, 10:9-11.

Epilogue

However futile Dee's efforts at grasping God's Word were, the aspiration to comprehend — and ultimately master — the world by laying bare the Word formed a central motif in his career as a natural philosopher. From the *Speculum unitatis*, written at the age of thirty, via *Monas hieroglyphica* published in 1564, to the angelic conversations in the 1580s, we find a continuous striving to fathom the creative principles of God, the *verbum Dei*, in order to gain knowledge of the universe. Though these works were decidedly different in character, reflecting Dee's changing interests and gradual appropriation of new sources, they also shared a fundamental feature in that they were all intimately associated with the study of language. In the lost *Speculum unitatis* Dee claimed to have proposed the existence of a "universal grammar", a grammar underlying all languages and reflecting the divine powers of God. In *Monas hieroglyphica* the same idea reappears as an integral part of his attempt to conceive a symbolic meta-language, manifesting the "law of creation" in the form of a unified geometrical arrangement. Finally, in his angelic conversations we encounter an extraordinary attempt to recover the lost prelapsarian tongue of Adam, the one language which represented accurately the Word and thereby had the power to bring all sciences and arts to perfection.

In this study I have suggested that a focus on this feature can afford a better understanding of Dee's works, his underlying incentives, and their relation to Renaissance philosophy as a whole. Dee's use of language as a means to grasp the creative principles of God highlights his engagement in what can be called "symbolic exegesis", a generic term that comprises a heterogeneous group of discursive practices fostered by a conception of human language as intimately linked to the Word of God. This conception of language had both philosophical and historiographical roots. The philosophical roots were provided by a metaphysical system structured around the *logos* concept. The tripartite meaning of the term *logos*, simultaneously denoting "reason", "word" and "speech" (in the sense of an external "expression" of reason) laid the foundation for a conception of *Logos* as the intellectual principles in the divine Mind, expressed and reflected in both nature and the human soul. By envisaging nature as a mani-

festation of God's creative Word, one could metaphorically associate the "language of nature" with the *verbum Dei*, a notion implying that nature "spoke of" or "expressed" God's wisdom in symbolic form. This "language of nature" was accessible to human interpretation and comprehension since man was conceived of as an *imago Dei*, bearing these divine principles of creation innate in his soul. This conception of man also made it possible to conceptualize human language metaphorically in relation to the Word; that is, human language could be conceived of as an expression or external manifestation of human reason, which in turn was an reflection of the divine Word. As a consequence, the metaphysical scheme structured around the *logos* concept entailed a congruence between language, nature and God's Word, implying that language could be used as a means to fathom both nature and divinity.

These conceptual ties between language and the divine Word were both strengthened and rendered more complicated by their dependence on historiography. The early modern era gave rise to a profusion of cultural narratives describing how man's pristine wisdom had been handed down from generation to generation, gradually deteriorating and preserved intact only in symbolic and esoteric writings. Such narratives focused the attention on ancient texts and their interpretation as a means to gain access to the secrets of nature. But the myth of an ancient wisdom was also commonly coupled with the biblical narrative of Adam's naming of the animals, the Fall and the confusion of tongues. The narrative of man's prelapsarian tongue and its subsequent deterioration forged an immediate link between the divine Word and human language: truth was accessible, not only through the texts of ancient sages, but through language itself, which in its original state of perfection had truthfully represented the Word.

The profusion of differing attempts to fathom both nature and God by means of language demonstrate how these philosophical and historiographical conceptions could intersect and nourish each other in a complicated manner. Behind the early modern preoccupation with linguistic and textual practices there was no one "Renaissance view of language", but a complex set of conceptions that made it possible to metaphorically associate language with nature and the Word in a variety of ways, thereby providing scope for differing interpretations.

Early modern symbolic exegesis provides a setting for Dee's natural philosophy which afford a better understanding of his works than the various attempts to situate him in more or less specific "traditions of thought". Dee's syncretistic approach to textual interpretation, sanctioned by his belief in a perennial philosophy, renders every attempt to view him as exemplary of a specific philosophical school or faction virtually impossible. By viewing Dee's works in the context of symbolic exegesis we can, instead, focus on the underlying motives of his works, while simultaneously appreciating the unique outcomes. The scope of interpretive possibilities that existed within this group of discursive practices enabled Dee to exploit the metaphoric associations between language, nature and the Word in singular ways, creating his own strategies to unlock the secrets of nature and the Word.

The heterogeneity of early modern symbolic exegesis is a feature that comes to light even in Dee's own works. Despite the numerous parallels between *Monas hieroglyphica* and his later efforts at recovering the Adamic language, these works emphasised different — though not necessarily conflicting — aspects of the metaphorical relations between language, nature and the Word. In *Monas hieroglyphica* the underlying assumption was that mathematics constituted the true "language of nature", the very means by which God had created the world. This assumption authorized his attempt to reduce all knowledge to a common foundation, symbolically expressed through a unified geometrical hieroglyph. This symbol, or "sacred art of writing" as Dee called it, served as a contemplative device by which man could comprehend the divine laws of creation, the *verbum Dei*, whose reflection he bore innate in his soul. As a symbolic expression of the Word, the Monas symbol served as a "meta-language" which bridged the traditional disciplinary boundaries, bringing these sciences back to their original, unified state. Simultaneously it forged tight links between natural philosophy, scriptural exegesis and language. In stressing how the Monas symbol could unlock the hidden meanings of Scripture and demonstrate the common principles of the Latin, Greek and Hebrew alphabets, Dee clearly implied a correspondence between nature and human language. Language and Scripture reflected the laws of nature, not by signifying "naturally", but by expressing in their very elements the creative principles of God.

Dee's attempt to conceive a unified symbolic language which epitomized these divine laws was ultimately dependent on his belief

in the wisdom of the ancients. In relying on the traditional alchemical symbols when contriving the Monas symbol, he clearly regarded these characters as part of an ancient, albeit distorted, language in which “the oldest wise men” had incorporated their perfect knowledge of the Word. In this respect the *Monas hieroglyphica* differed from his later angelic conversations. Whereas the Monas symbol was an attempt to recover the lost wisdom of the ancients by restoring the original perfection of a language which had been handed down throughout history, the angelic conversations were aimed at gaining knowledge directly by divine intervention, without relying on a cultural heritage.

Dee’s turn to angelic magic in the 1580s was in all probability a result of frustration at his failed efforts at attaining the knowledge he coveted by relying on the practices of symbolic exegesis. Ironically, however, the angelic revelations soon forced him to engage in interpretive techniques that were remarkably similar to those of *Monas hieroglyphica* and which to a large extent posed the same insurmountable problems. Although the angels claimed to reveal the original prelapsarian tongue to Dee and his assistant Edward Kelley, it was never disclosed in its entirety, but piecemeal in the form of individual words and letters, meant to be combined and permuted according to rules that remained unclear. Though Dee never lost hope that the angelic messengers would subsequently redeem their promises of infusing him with perfect wisdom, the conversations appear as an assiduous but futile attempt to master the Adamic language in order to gain access to the Word.

For all the differences between *Monas hieroglyphica* and the angelic conversations, their underlying motivation was to a large extent identical. Both the Monas symbol and the Adamic language were viewed as a means by which the wisdom of the ancients, including the practical utility of all technical arts, could be restored to its original perfection. Equally important, however, were the redemptive properties that both of these languages were believed to possess. By enabling the human mind to fathom the divine Word, they were both envisaged as a means by which man could attain a beatific vision of God. In *Monas hieroglyphica* Dee relied on a wide range of philosophical traditions which treated symbolic expressions as contemplative devices by which the human mind could transcend ordinary, discursive reasoning and attain an intuitive, noetic state of comprehension. By

focusing the mind on symbolic expressions of divine principles or Ideas, one could mentally grasp their reflection in the human intellect and experience a mystic ascent of the soul, ultimately leading to a vision of — and perhaps even union with — God.

The notion of language as a means to attain redemption of the soul remained central to Dee's continuing efforts in the 1580s, but in the angelic conversations the theme also took on a much grander role. Once granted the one language which truly incarnated the Word, Dee and Kelley were not only to be healed from the consequences of the Fall, finally attaining that reformation of the soul promised the faithful; by recovering the Adamic language they would heal the world entire, curing it from the "sickness" affecting it since Adam's transgression of God's command. In attributing this power to the Adamic language, the angelic revelations exploited the close kinship between man's prelapsarian tongue and God's Word, portraying the Adamic language as actually possessing the properties and powers of the *verbum Dei*. As such, this language would also enable Dee and Kelley to institute a complete restoration of religion, ultimately healing the chasm between different faiths.

Dee's belief in the redemptive properties of the Adamic language was to a large extent legitimized by the fact that the revelations were couched in the narrative of Adam's prelapsarian wisdom, his Fall and the subsequent confusion of tongues. This narrative had a much more pronounced role in the angelic conversations than in the earlier *Monas hieroglyphica*, in a sense compensating for the lack of philosophical argumentation in the revelations. But the belief in the power of the Adamic tongue also had support in contemporary philosophical concepts. Although early modern views of the magical properties of language were not grounded in a generally accepted "theory of language", such notions were often corroborated by exploiting the metaphorical associations between human language and the creative Word of God. The view of man as an *imago Dei* who expresses reason (*logos*) in the form of speech and words (also *logos*) made it possible to conceptualize human language metaphorically in relation to the Word, and by extension conceive of it as a vehicle of divine powers. In such accounts, the narrative of Adam's prelapsarian tongue and its subsequent deterioration often had an important function in that it provided a concrete, historical link between the Word of God and the languages of man. By invoking this historiography it was possible to

anchor their metaphorical relationship in a tangible point of origin, lending credence to the belief that ancient tongues were more powerful than more recent idioms due to their closer affinity to the Word.

Such ancient and magically powerful names and words also had an important role in ritual forms of magic. In medieval traditions of ceremonial magic, the magical efficacy and legitimacy of the rituals were often sanctioned by their reliance on Christian liturgical forms. By drawing on the Catholic view of the sacraments, practitioners of ritual magic could treat the use of prayers, invocations, magical circles and suffumigations as conformable to Christian doctrine. A large number of these medieval tracts were also attributed to biblical prophets, such as Solomon and Enoch, suggesting that ritual magic was part of an ancient wisdom originally granted to these prophets by God. This belief was an important factor behind the early modern attempts to accommodate medieval traditions of ritual magic to the newly discovered sources on kabbalah and Neoplatonic theurgy. These sources provided ritual magic with a philosophical basis which could (albeit not always easily) be reconciled with Christian conceptions.

Though Dee's angelic conversations were motivated by a growing frustration at his failed efforts at attaining true wisdom by the techniques of symbolic exegesis, it is plausible that he viewed these ritual practices as being in agreement with the pagan and Neoplatonic sources he relied on in his earlier works. Rather than indicating a shift in his philosophical orientation, his turn to angelic magic in the 1580s was yet another step towards a complete restitution of the ancient wisdom — a step that would make the “mysteries of the word of God, sealed from the beginning”, known to mankind and bring human history to its destined closure.

Restat ut gratias agam

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