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**The stone horoscope: evidence for continuity of ancient  
esoteric tradition and practice.**

**Are an authentic astrological practice and archaic  
ideological narratives concatenating sky and stones  
embedded in *The Greek Alexander Romance*?**

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## **Abstract**

This dissertation questions whether the Greeks stripped the irrational from astrology or whether Hellenistic astrological practice in fact preserved at least some elements of an esoteric tradition, in the form of planet and stone correspondences, which would later comprise an important but largely unrecognised dimension of European cultural and intellectual history. An early novel, a fictionalised biography of Alexander the Great, records an astrological practice concatenating stones and planets and comparing birthcharts before horoscopic astrology is generally deemed to have been fully formulated. The study will explore the authenticity of the practice and its underlying ideological narratives, setting them in the context of magical and divinatory practices in the ancient world and locating them within the animated cosmos.

## **Acknowledgements**

I would like to thank Professors Postgate, Henig, Pinch and Evans for their courtesy and assistance rendered during my search for material for this dissertation and Dr Ness for kind permission to quote from his forthcoming translation of Bouche Leclercq. Also Hayley Maund for translation services.

## **Statement of originality**

This dissertation is an independent work in which all sources of material drawn on have been acknowledged.

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## Introduction

*In Hellenistic Astrology we are very near the fountainhead of the astrological tradition as we know it.*

*Robert Zoller<sup>1</sup>*

## Outline

In 1957 Neugebauer took the view that ‘compared to the background of religion, magic and mysticism, the fundamental doctrines of astrology are pure science’ and in 1959 Sarton declared that ‘one might almost claim that Greek astrology was the fruit of Greek rationalism’, judging that ‘a correspondence between stars and men... [is] not irrational’.<sup>2</sup> In 1973 Lee asserted that the Greeks ‘cut away the encumbrances of superstition’ and the consensus was that Hellenistic astrology was rational, with Tester opining that it ‘appealed to the educated Greeks precisely because they were rational and because it was a rational system, or could be made to look like one’.<sup>3</sup>

This dissertation questions whether the Greek influence on astrology stripped it of certain magical and esoteric elements, as implied by Naydler:

The Greeks let slip from their grasp an older dispensation ... according to which knowledge of the spiritual powers that pervade the cosmos was assiduously cultivated. As the Greeks slackened their grip upon this older, more attuned mode of consciousness, they had increasingly to orientate

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<sup>1</sup> Robert Zoller, Robert (trans), *Hermes Trismegistus Liber Hermetis* (Salisbury, Queensland: Spica Publications, 1998 edition) [hereinafter *Liber Hermetis*] p.v.

<sup>2</sup> Neugebauer, O. *The Exact Sciences in Antiquity*, second edition (Providence, Rhode Island, 1957 p.97ff. [hereinafter *Neugebauer Exact Sciences*] and G. Sarton, *A History of Science: Hellenistic Science and Culture in the Last Three Centuries B.C.* (Cambridge, Mass, and London 1959) p.165 cited in Jim Tester, *A History of Western Astrology* (Woodbridge: The Boydell Press 1987) [hereinafter *Tester*] p.18

<sup>3</sup> Lee, Desmond, ‘Science, Philosophy, and Technology in the Greco-Roman World’, *Greece and Rome*, 2<sup>nd</sup> Ser. Vol.20. No.2 (Oct.1973) pp.180-193 p.192, and Tester p.18.

themselves by reference to the narrower human faculties of logic and sense perception<sup>4</sup>

or, whether Hellenistic astrological practice in fact preserved at least some elements of an esoteric tradition that would later form an important but largely unrecognised dimension of European cultural and intellectual history.<sup>5</sup> According to authorities such as Dodds and Struck, however, the Greeks remained more in touch with the irrational than is generally realised, particularly in the area of theurgy, and the use of stones to represent planets and signs is taken, in what follows, to be indicative of this as it is based upon arcane correspondences.<sup>6</sup> Esotericism has been defined as ‘secret, acroamatic; for the initiated only and intelligible only to them’ and, within astrology, relies on hidden meanings and connections that may appear irrational to an outside observer with no knowledge of the underlying rationale.<sup>7</sup>

In 1984 Rochberg-Halton stated that ‘to explain the actual development of Greek forms of astrology as direct borrowings from Babylonian concepts [has] so far not been possible due to a complete lack of evidence’.<sup>8</sup> The assertion that Hellenistic astrology developed in isolation is, however, questioned by scholars - including

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<sup>4</sup> Naydler, Jeremy, *Temple of the Cosmos the Ancient Egyptian Experience of the Sacred* (Rochester: Inner Traditions, 1996) [hereinafter Naydler Temple] p.viii-ix and see Jeremy Naydler, *The Shamanic Wisdom in the Pyramid Texts* (Rochester, Vermont: Inner Traditions 2005) [hereinafter Naydler Shamanic]

<sup>5</sup> See Hutton, Ronald, ‘Astral Magic: The Acceptable Face of Paganism’ in Nicholas Campion, Patrick Curry and Michael York, *Papers from the inaugural conference of the Sophia Centre, Bath Spa University College*, 13-14 June 2003, Bristol: Cinnabar Books 2004 [hereinafter Hutton Astral Magic] p.10.

<sup>6</sup> See the correspondence section of this dissertation and Dodds, E.R., *The Greeks and the Irrational* (Berkeley: University of California Press, 1951) [hereinafter Dodds] p.292ff and Peter Struck, ‘The Poet as Conjuror: magic and literary theory in Late Antiquity’, p.119-131 [hereinafter Struck] in Leda Ciraoilo and Jonathan Seidel, (eds), *Magic and Divination in the Ancient World* (Leiden, Boston, Koln: Brill, 2002).

<sup>7</sup> Definition from Dawson, Lawrence H. (ed), *Nuttall’s Everyday Dictionary of the English Language* (London: Frederick Warne & Co. Ltd, no date given). The rationale is explored later in this dissertation. See the introduction to Liber Hermetis for a discussion as to the de-paganisation of astrology and the rationality of theurgy.

<sup>8</sup> Rochberg-Halton, F, ‘New Evidence for the History of Astrology’, *Journal of Near Eastern Studies*, Vol. 43, No.2 (Apr. 1984) [hereinafter Rochberg-Halton] pp.115-140.

Rochberg-Halton herself when presenting a ‘connecting link’ later in the same paper.<sup>9</sup> The problem of cultural transmission has been addressed by Riffard who takes the view that knowledge of esotericism is attainable from the external, historical method of scholars and the internal approach of esotericists. According to Riffard, the latter method allows a hypothesis to be generated that ‘the theory of correspondences, which establishes the links between elements of different orders (such as the planet Mars, which belongs to the astronomical order, and Iron, which belongs to the geological order), will establish concordances between the ideas of different cultures’ [hereinafter ‘Riffard’s hypothesis’].<sup>10</sup> This dissertation will apply Riffard’s hypothesis to historical texts and practices across four cultures: Hellenistic Greece, Egypt, Mesopotamia and Judaism. It will also apply a number of his trans-historical tests of esotericism - mythical origins, chains of initiation, secret books, mystical names, anagogic translation and magical uses - when assessing the metaphysical foundations of Hellenistic astrology.<sup>11</sup>

Kieckhefer takes the view that ‘magic is a crossing point where religion converges with science, popular beliefs intersect with those of the educated classes, and the conventions of fiction meet the realities of daily life’ and this dissertation also seeks to establish whether an Hellenistic novel incorporated a contemporaneous, or near contemporaneous, esoteric practice.<sup>12</sup>

In rebutting a review in which ‘superstitious flotsam of the Near East’ was used in regard to ‘a wretched collection of debased astrology and miscellaneous

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<sup>9</sup> See Rochberg-Halton p.118.

<sup>10</sup> Riffard, Pierre A.M, ‘The Esoteric Method’ pp.63-74 in Antoine Faivre & Wouter J. Hanegraaff (eds) *Western Esotericism and the Science of Religion* (Leuven, Belgium: Peeters, 1998) [hereinafter Faivre and Hanegraaff], p.65. See also Naydler Shamanic Chapter 5 especially p.129ff for a detailed defence of the objectivity gained on approaching phenomena with empathy.

<sup>11</sup> Riffard p.67-71. For a critique of Riffard’s methods see Hanegraaff p.22-26

<sup>12</sup> Kieckhefer, Richard, *Magic in the Middle Ages* (Cambridge: Cambridge University Press, 1990) [hereinafter Kieckhefer] p.1.

nonsense', Neugebauer pointed out that serious scholars spent years on the study of ancient astrology because it might one day provide the missing link in transmission of cosmogonic ideas that had a profound impact on Islamic science, the art and philosophy of the Renaissance, and mediaeval medicine, botany, chemistry.<sup>13</sup> This dissertation tracks precedents for a remnant of that 'superstitious flotsam' - stones representing planets and the zodiac, a component of astral magic - into Egypt and Mesopotamia seeking to establish whether the practice falls within a continuity of tradition and esoteric practice. It hypothesises that esoteric knowledge, hinted at in myth and sacred writings of Mesopotamia, Egypt, India and Israel, could have formed the basis for astrological correspondences that later emerged in Hellenistic and Arabian thought and carried into the western world.<sup>14</sup> The study seeks to in part extend the work of Hutton who, having demonstrated that all components of medieval astral magic were in place in Alexandria at the commencement of the common era, nevertheless rejects purely Egyptian or Mesopotamian antecedents and takes the view that its origins cannot with certainty be established.<sup>15</sup> In the judgement of Hull, however, of several tributaries of Hellenistic magic Egypt was the greatest and Persia second, and Reiner opines that the correspondences drawn between the signs of the zodiac and the performance of apotropaic rites - the 'technology of magic' - in Mesopotamia culminated in Hellenistic astrology.<sup>16</sup> Such stone and astrology correspondences are professed as a basis for later works. The thirteenth century

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<sup>13</sup> Neugebauer. O., 'The Study of Wretched Subjects', *Isis*, Vol. 42, No.2 (June 1951) p.111. It has not been possible to obtain the original review or the book to which it referred.

<sup>14</sup> See for instance Lilly, William, *Christian Astrology Books I and II*, editor David A. Roell (Bel Air MD: Astrology Classic 2004 edition) [hereinafter Lilly] and Rex. E. Bills, *The Rulership Book*, (Richmond, Virginia: Macoy Publishing and Masonic Supply Co. Inc. 1971) [hereinafter Bills] and see also Hutton Astral Magic.

<sup>15</sup> Hutton Astral Magic.

<sup>16</sup> Hull, John M., *Hellenistic Magic and the Synoptic Tradition* (Naperville, Ill: Alec R. Allenson Inc. 1974) [hereinafter Hull] p.27-29 and Erica Reiner, 'Astral Magic in Babylonia', *Transactions of the American Philosophical Society*, Vol. 85, Part 4, 1995 (Philadelphia: American Philosophical Society, 1995) [hereinafter Reiner Astral Magic].

*Lapidary of King Alfonso* claims, for example, to be translated from ‘the Chaldean language’.<sup>17</sup> Listing forty-five ‘Chaldean stones’ and the degree of the zodiac to which they appertain, it has been demonstrated to draw heavily on Ptolemy’s *Almagest* and hermetic *Cyranides*, implying continuity of tradition.<sup>18</sup>

This dissertation is part of an on-going enquiry into the origins and nature of the tradition that attributes precious and semi-precious stones (herein ‘stones’) to zodiac signs and planets attracting, it is held, to the wearer the favour of the planet under whose patronage the stone is placed.<sup>19</sup> An astrological practice involving stones in a remedial capacity has been continuous in India for at least two thousand years to the present day.<sup>20</sup> The Indian connection is, however, outside the scope of this study, as is the transmission from Greek to Arabic and western astrology.<sup>21</sup> The practice of stone magic, which could be regarded as vernacular religion, is part of a magical and

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<sup>17</sup> Bahler, Ingrid and Katherine Gyekenyesi Gatto (eds), *The Lapidary of King Alfonso the Learned* (New Orleans: University Press of the South, 1997) [hereinafter *Alfonso Lapidary*]

<sup>18</sup> See *Alfonso Lapidary* Appendix p.234ff and J. Horace Nunemaker, ‘The Chaldean Stones in the Lapidary of Alfonso X’, *PMLA*, Vol. 45, No.2 (June 1930) pp.444-453 which, for the most part, quotes the medieval Catalan version and is, therefore, inaccessible.

<sup>19</sup> The terms ‘precious’ and ‘semi-precious’ are modern and have no bearing on ancient usage. Lapis lazuli, one of the most prized stones in Mesopotamia and Egypt, is today deemed ‘semi-precious’ and of much lesser value, see Kutner, Ann, ‘Cabinet Fit for a Queen’, pp.141-163, [hereinafter Kuttner in Kathryn Gutzwiller (ed) *Posidippus: A Hellenistic Poetry Book* (Oxford: Oxford University Press 2005) [hereinafter Gutzwiller Posidippus and A. Lucas *Ancient Egyptian Materials and Industries*, fourth edition revised by J.R. Harris, (London: Histories & Mysteries of Man Ltd., 1962) [hereinafter Lucas] p.386ff. See Robert Halleux and Jacques Schamp (editors), *Les Lapidaries Grecs*, (Paris: Collection des Universités de France, Les Belles Lettres, 1985, 2<sup>nd</sup> edition 2003) [hereinafter *Lapidaries Grec*] for an explanation of the patronage of the planet. The zodiac is defined by Rochberg-Halton as ‘a belt of approximately 12 degrees breadth extending north and south of the ecliptic, or the oblique circle which describes the apparent path of the sun through the stars in about one year’. The twelve signs of thirty degrees each zodiac is deemed to have had its origins in Babylonia sometime during the fifth century BCE. F. Rochberg-Halton, ‘New Evidence for the History of Astrology’, *Journal of Near Eastern Studies*, pp.115-140. Date unknown. [hereinafter Rochberg-Halton] p.121

<sup>20</sup> See Hutton *Astral Magic*, Margaret Stutley, *Ancient Indian Magic and Folklore: an introduction* (London: Routledge, 2001), George Frederick Kunz, *The Curious Lore of Precious Stones* (first edition Philadelphia: Lippincott Company, 1918; Dover Edition: Toronto, 1971) [hereinafter Kunz] and David Pingree, *The Yavanajataka of Sphudjdhvaja* (Cambridge, Mass: Harvard University Press, 1978). This does not, however, necessarily imply that the present day Indian use of remedial gems is magical, merely that the practice of using remedial gems can be demonstrated to have been continuous in India, see Komilla Sutton, ‘Astrology and Gemmology’ on *Skyscript* <http://www.skyscript.co.uk/gems.html> consulted 3.1.2006. I am indebted to Sutton for personal lecture notes and discussion and email correspondence. See also the discussion on remedial gems in Paramhansa Yogananda, *The Autobiography of a Yogi* (London: Rider and Company, 1969)

<sup>21</sup> This will be pursued at a later date.

alchemical counter-culture the roots of which have become lost in ‘a confusion of popular fantasies’.<sup>22</sup> This present study concentrates on one small section: the association of stones, planets and zodiac (hereinafter ‘the stone horoscope’) as demonstrated in *The Greek Alexander Romance*, seeking to establish whether it is an authentic astrological practice. It moves from ancient beliefs concerning the origins of astrology into speculative areas such as method of practice, examines contributory artefacts and texts, and concludes with a consideration of ideological narratives before placing the whole into the context of an animated universe.

The *Romance*, a hugely influential and much translated work, is a ‘fictionalised biography’ of Alexander the Great variously dated between the third centuries BCE and CE. The version followed here is a compilation of three early Greek recensions, not necessarily the primary composition.<sup>23</sup> Since it is deemed non-contemporaneous with Alexander’s birth, whether the practice of the stone horoscope was in place at that time or if there could be a retrojection of a practice concurrent with the book’s composition, will be examined. The *Romance*, imbued with mythic

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<sup>22</sup> For ‘vernacular religion’ see Primiano, C., ‘Vernacular Religion and the search for method in religious folklife’, *Western Folklore*, 54 (January 1995) pp.37-56. For counter culture, Ronald Hutton, lecture Bath Spa university, 15 May 2007, and see Jack Lindsay, *Origins of Alchemy in Graeco-Roman Egypt* (New York: Barnes & Noble Inc 1970) [hereinafter Lindsay], particularly p.313 for the ‘confusion of popular fantasies’. For references to ‘rooted in ancient tradition’ and how the tradition is presented in modern times, see, for example, Kunz, Pingree in particular pages 253-258, E. Ivy. A Bannerman-Phillips, *Amulets and Birthstones: their astrological significance* (Los Angeles: Llewellyn Publications, 1950), Anon. ‘August birthstone – Peridot’ on <http://mineral.galleries.com/minerals/gemstone/peridot/birthaug.htm> consulted 30.10.2004, Julie Gillentine, ‘Twelve Gates of Heaven’ reprinted from *Atlantis Rising* Issue 43, December 2003-January 2004, on <http://www.queenofcups.com/AR43article.htm> consulted 21.10.2004, Joan Evans, *Magical Jewels of the Middle Ages and the Renaissance* (Oxford: Oxford University Press 1922) [hereinafter Evans Jewels], Paul Studer and Joan Evans, *Anglo-Norman Lapidaries* (Paris, 1924), Scott Cunningham, *Cunningham’s Encyclopedia of Crystal, Gem and Metal Magic*, (Minnesota: Llewellyn 1991) [hereinafter Cunningham], William T. Fernie, *The Occult and Curative Powers of Precious Stones* (1907, reprinted Harper & Row 1973), Rupert Gleadow, *The Origins of the Zodiac* (N.Y: Atheneum, 1968) Michael R. Best and Frank H. Brightman (eds), *The Book of Secrets of Albertus Magnus of the Virtues of Herbs, Stones and Certain Beasts* (Oxford: Oxford University Press 1973 originally translated from the Latin 1550) [hereinafter Albertus Magnus], Dorothy Wyckoff (trans), *Albertus Magnus’s Book of Minerals* (Oxford: Oxford University Press, 1967) [hereinafter Magnus],

<sup>22</sup> See Stoneman, Richard, *The Greek Alexander Romance* (London: Penguin Books 1991) [herein in text *The Romance* and in footnotes Stoneman] p.7-8.

<sup>23</sup> See Stoneman p.7-8 for a survey of the various translations and influence of the story.

material and mantic arts, is of dubious historical accuracy being ‘overlaid by many layers of fabulous material’.<sup>24</sup> The argument is made, however, that in some respects the picture the book presents of a lively cultural exchange between Egypt, India and Greece is fundamentally accurate. Within the Alexandrian empire there was conflation of cosmogonic speculations, ideological narratives and cultural practices stemming from earlier sources including Mesopotamia.<sup>25</sup> It is clear from Hellenistic writers such as Valens that metals, colours and some stones were, by the second century CE, attributed to planets and such connections endured over long periods.<sup>26</sup> A concatenation between planets and/or constellations and stones in fifth century BCE Mesopotamia and earlier, and a concordance in Egypt between stones and decans can be established.<sup>27</sup> Hellenistic, Egyptian and Mesopotamian texts and artefacts further support a cosmological concatenation between stones and sky and illustrate the intertwining of ideological narratives across the ancient world.<sup>28</sup>

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<sup>24</sup> Stoneman p.4.

<sup>25</sup> For various views and contributions on this see Schoener, Dr. Gustav-Adolf, trans. Shane Denson, ‘Astrology: Between Religion and the Empirical’ [hereinafter Schoener] <http://www.esoteric.msu.edu/VolumeIV/astrology.htm> consulted 27.10.2004 p.10, Geraldine Pinch, *Magic in Ancient Egypt* (London: The British Museum Press 1994) [hereinafter Pinch Magic] p.167. See also Erica Reiner, ‘The Uses of Astrology’, *Journal of the American Oriental Society*, Vol. 103, No.4 (Oct – Dec, 1985) pp.589-595 [hereinafter Reiner Astrology] and Leo A Oppenheim. ‘A Babylonian Diviner’s Manual’, *Journal of Near Eastern Studies*, Vol. 33, No.2 (April 1974) pp.197-220 [hereinafter Oppenheim] and see David Fideler, ‘Introduction’, *Alexandria 2* (Grand Rapids: Phanes Press 1993) pp.7-15 [hereinafter Fideler] for a wider discussion of the cultural influences of the city of Alexandria and Hellenistic Greece in general.

<sup>26</sup> See Chapter 1 of this dissertation.

<sup>27</sup> Valens, Vettius, *The Anthology Books I-IV*, trans. Robert H. Schmidt, edited Robert Hand Project Hindsight Greek Track (Berkeley: The Golden Hind Press, 1993-9) [hereinafter Valens] Book I p.1-7 and Shzung Weiner, SB D Akad 1967-68 Phil. Hist. Klasse. 254, of which no professional translation is yet available – author’s own translation used for this dissertation. In this dissertation ‘Mesopotamian’ will cover Sumeria, Babylon and Assyria.

<sup>28</sup> See Henri Frankfort’s letter to his friend Abraham D. van Regteren Altena quoted from page 24 of an unreferenced translation by Mauritis van Loon cited in David Wengrow, ‘The Intellectual Adventure of Henri Frankfort: A Missing Chapter in the History of Archaeological thought’, *American Journal of Archaeology*, Vol. 103, No. 4 (Oct. 1999) pp.597-613 [hereinafter Wengrow] p.599

Casting horoscopes was one among many divinatory arts practised in the ancient world incorporated into the *Romance* as when Alexander's mother visits Nectanebo, an astrologer:<sup>29</sup>

He placed his hand in a fold of his garment and took out an extraordinary little writing tablet, constructed from gold, ivory, ebony and silver, and engraved with three zones. On the first circle were the thirty-six decans, on the second the twelve signs of the zodiac, and on the inner one the Sun and Moon. He put it on a chair. Then he opened a small ivory box, revealing the seven stars and the ascendant made of eight precious stones, which lit up the pictured miniature heaven. The Sun was of crystal, the Moon of diamond, the Mars of haemetite, the Mercury of emerald, the Jupiter of air-stone, the Venus of sapphire, the Saturn of orphite and the pointer [Ascendant] of white marble.

Olympias... sat down beside him and said: "Prophet, cast a nativity for myself and Philip." Nectanebo said to her: "Put down the hour of your birth, put down that of Philip." ... He [also] placed his own nativity next to that of Olympias; then he made some calculations and said to her ... "You must have intercourse with an incarnate god, become pregnant by him and bear his son."<sup>30</sup>

This appears to be the first recorded use of synastry – comparing birthcharts to elucidate a relationship – and might be considered pure fiction had not identical boards been recovered and demotic papyri specifying planet-stone relationships been found, albeit dating to somewhat later than the *Romance*.<sup>31</sup>

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<sup>29</sup> Stoneman p.38. In this dissertation 'stone' is used for crystals, gemstones, precious, semi-precious and non-precious stones unless specifically named.

<sup>30</sup> Stoneman p.38

<sup>31</sup> See Evans, James, 'The Astrologer's Apparatus: a picture of professional practice in Graeco-Roman Egypt', *Journal for the History of Astronomy*, Vol.35 p.t.1 Feb 2004 pp.1-44 [hereinafter Evans] for a

A working hypothesis will, therefore, be generated that ancient astrologers did indeed lay stones on a horoscopic board and that this practice arose out of a larger and more ancient dialogue between earth and sky.

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full discussion of evidential artefacts and Hans Deiter Betz, (ed) *The Greek Magical Papyri in Translation including the demotic spells Vol: 1 Texts* (Chicago: University of Chicago Press, Second Edition 1992) [hereinafter *Demotic Papyri* with relevant title].<sup>31</sup> Synastry assesses the potential of a relationship from the geometric interaction of the natal charts of the two people concerned.

## Review of previous work

Scholarly commentaries on the *Romance* are numerous but it is outside the scope of this dissertation to consider anything other than date and provenance for the astrological practice described. Scant academic attention has been paid to this description of an ancient astrologer at work with the tools of his trade apart from an article by Evans.<sup>32</sup> His painstaking review of artefacts and texts from Graeco-Egypt conjures a credible picture of astrological practice from which to explore further.<sup>33</sup>

From an extensive literature review, the amuletic tradition and ancient astrology have been studied in some depth and considerable commentary has been generated on magic and the mantic arts.<sup>34</sup> Hutton reviewed the largely forgotten practice of planetary magic in the West between the twelfth and eighteenth centuries, briefly examining its precedents.<sup>35</sup> Some academic attention has been paid to lapidaries of Greece and Egypt and rather more to Arabic, medieval, Middle Ages, Renaissance and ‘modern’ birthstones – stones associated with zodiac signs, and remedial gems – stones associated with planets.<sup>36</sup> Pingree gives a brief comparative

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<sup>32</sup> See also Jasnow, Richard, ‘The Greek Alexander Romance and Demotic Egyptian Literature’, *Journal of Near Eastern Studies*, Vol. 56, No.2 (Apr. 1997) pp.95-103 [hereinafter Jasnow] who briefly mentions the astrological and divinatory content.

<sup>33</sup> For ancient astrology see Tester, S.J., *A History of Western Astrology* (Woodbridge: The Boydell Press, 1987) and Nicholas Campion *Cosmos* (in course of publication). For a discussion of astrologer’s apparatus and allied artefacts see Evans. For the amulet tradition, magic and the mantic arts see Campbell Bonner, *Studies in Magical Amulets* (Michigan: University of Michigan, 1950) [hereinafter Bonner]. For a non-scholarly hypothesis of the ancient Egyptian foundations of Western astrology see Amir Bey, *The Ancient Egyptian Foundations of Western Astrology* [hereinafter Bey] on <http://abey.home.mindspring.com/ancient.htm> consulted 24.10.2004

<sup>34</sup> See Scarborough, John, ‘Untitled Review of *Les Lapidaires Grecques*’ in *Isis*, Vol.81, No.2 (Jun. 1990) pp.332-334 [hereinafter Scarborough] p.332 for a critique of the modern study of ancient science.

<sup>35</sup> See Hutton *Astral Magic*.

<sup>36</sup> See the bibliography to this dissertation for lapidary, amuletic and mantic works consulted and the work of Project Hindsight for translations of early astrological texts. For lapidaries and birthstones see Kunz, Evans Jewels, Joan Evans and Mary S. Serjeantson, *English Mediaeval Lapidaries* (London: Early English Text Society, Humphrey Milford Oxford University Press, 1933) [hereinafter Evans *Medieval Lapidaries*], Wyckoff, Joseph O. Gill, *Gill’s Index to Journals, articles and books relating to gems and jewelry* (Santa Monica: Gemmological Institute of America, date not specified), Earle R. Caley and John C. Richard *Theophrastus on Stones* (Columbus, Ohio: The Ohio State University, 1956) [hereinafter Theophrastus], E.A. Wallis Budge, *Amulets and Superstitions* (New York, Dover Publications Inc N.Y. 1978 reprint of 1930 original) [hereinafter Budge *Amulets*]. Francis Barrett, *The*

survey of planetary jewels and metals in the commentary to a second century Graeco-Indian text citing therein the Nectanebo passage in the *Romance* as the commencement of the Indo-Hellenistic astro-gemmological tradition but making no further comment thereon.<sup>37</sup>

Little attention has been paid to Egyptian or Mesopotamian stone lore despite Postgate opining in 1997 that pursuing the Babylonian lapidaries into the Hellenistic world would be a fruitful area of study.<sup>38</sup> A century previously, Bouche Leclercq was of the opinion that omission of astrological material from the 1898 version of *Lapidaries Grecs* was to be deplored.<sup>39</sup> At least one of those lapidaries draws on the casket of Nectanebo so can be presumed to be post-*Romance*.<sup>40</sup> These texts illustrate ‘continuous interweaving of ancient and later traditions’ and difficulty in establishing exactly what lore was in place in Hellenistic times.<sup>41</sup> A review article of recent

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*Magus: a Complete System of Occult Philosophy* (Boston: Weiser Books 2000); Dr. Max Bauer, *Precious Stones*, trans. L.J. Spencer (London: Charles Griffin & Company, 1970), Albertus Magnus, *Alphonso Lapidary*. For scholarly and non-scholarly opinions on ancient astrology see Gordon Fisher, ‘Some Sources of Astral Belief’, <http://cura.free.fr/xxx/30fisher.html> consulted 27.10.2004, Tester, Robert Hand, ‘Another View’ on Authors at Astrodienst on [http://www.astro-com/people/hand\\_his\\_e.htm](http://www.astro-com/people/hand_his_e.htm) consulted 27.10.2004 [hereinafter Hand], Enn Kasak and Raul Veede ‘Understanding Planets in Ancient Mesopotamia’, *Folklore Tartu* 2000, Peter Whitfield, *Astrology: a history*, (New York: Harry N. Abrams, Inc., 2001) [hereinafter Whitfield]

<sup>37</sup> Pingree Vol II pp.253-258. This text is implied by the Indo-Greek author to be a translation of a Greek text from Alexandria from circa 149/150.

<sup>38</sup> See Postgate, Nicholas, ‘Mesopotamian Petrology: Stages in the Classification of the Material World’, *Cambridge Archaeological Journal* 7:2 (1997) pp.205-24 [hereinafter Postgate] p.219. See Alasdair Livingstone, *Mystical and Mythological Explanatory Works of Assyrian and Babylonian Scholars*, (Oxford: Clarendon Press 1986) [hereinafter Livingstone] for a review of scholarly works with regard to Mesopotamia, and see also P. Roger S. Moorey, ‘Blue Stones in the Ancient Near East: Turquoise and lapis-lazuli’ pp.178-9 [hereinafter Moorey] and Irene J. Winter ‘The Aesthetic Value of Lapis Lazuli in Mesopotamia’ [hereinafter Winter] pp.43-48 both in *Cornaline et pierres precieuses*, Actes du colloque, muse du Louvre 1995.

<sup>39</sup> Ness, Lester, *Bouche Leclercq L’Astrologie Grecque* (translation in course of publication) [hereinafter Bouche Leclercq] Chapter 10, note17. Despite there being a recent edition of *Lapidaries Grecs* in French (see below), there is still no English translation available.

<sup>40</sup> These texts would be a fruitful source of study for a researcher with the requisite linguistic skills but cannot be further pursued here as my translator was unable to decipher the archaic French.

<sup>41</sup> Scarborough p.333

demotic papyri translations points out that certain gemmological and astrological texts have been omitted, suggesting a lack of interest or expertise in these subjects.<sup>42</sup>

A defining characteristic of esoteric knowledge is that it is a closely guarded secret, transmitted down a line of succession, often orally, to initiates.<sup>43</sup> Texts are likely to be rare and obscure taking the form of encrypted references – hematite, for example, being indicated in Egypt by the pseudonym ‘blood of snake’.<sup>44</sup> Texts from two, three, four or more millennia ago cannot be read with the cultural conditioning and cosmology of ‘western eyes’.<sup>45</sup> Modern connotations cannot be attached to archaic nomenclature, nor can texts translated on a word-for-word basis make sense. Ancient and modern translators often transliterate nomenclature they do not understand, or use concepts foreign to the culture and, in some cases, produce palpable nonsense as with this text that could, potentially, describe an astrological reading, astral magic or a manifestation spell but is too incoherent to assess.<sup>46</sup>

The great god Barzan Boubarzan Narzazouzan Barzabouzah, the sun; send up to me this night thy archangel Zebourthauen... I conjure thee by him who is seated in the flaming vesture on the silver(?) head of the Agathodaemon, the

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<sup>42</sup> For the review see Brashear, William M. ‘Out of the Closet: Recent Corpora of Magical Texts’, *Classical Philology*, Vol. 91, No.4 (Oct. 1996) pp.372-383 [hereinafter Brashear] p.374. For the suggestion that the papyri were letters between master and pupil see Stephen Edred Flowers, *Hermetic Magic: the Postmodern Magical Papyrus of Abaris* (Boston, MA: Weiser Books 1995) [hereinafter Flowers] p.261 - a course text for the MA in Transpersonal Arts and Practice, Chichester.

<sup>43</sup> Hanegraaff, Wouter J. ‘On the construction of “esoteric traditions”’ pp.12-61 [hereinafter Hanegraaff] in Faivre and Hanegraaff p.59 and see Kieckhefer p.12. See also the Introduction by Betz to the Greek Magical Papyri for an account of the suppression of magic and the burning of texts in the ancient world.

<sup>44</sup> PGM XII: 401-441 in Flowers p.262. See also Reiner Astral Magic, Faivre, Antoine, ‘Esoteric Currents in Modern and Contemporary Europe’ pp.1-10 [hereinafter Faivre] in Faivre and Hanegraaff and chapter 2 of this dissertation.

<sup>45</sup> See Finkelstein, J.J. The West, ‘The Bible and The Ancient Near East: Apperceptions and Categorisations’, *Man*, New Series, Vol.9, No.4 (Dec.1974) pp.591.608 [hereinafter Finkelstein ANE] p.591 and Wengrow p.599. Wengrow cites in particular a passage from W.M.F.Petrie, *Religion and Conscience in Ancient Egypt* (London 1898) pp.12-13.

<sup>46</sup> See Lindsay p.258, Moorey p.177

almighty four-faced daemon, the highest darkling and soul-bringing(?) Phox;  
... send up speedily in this night an injunction(?) of the god...

Then he speaks with you with his mouth opposite your mouth in truth  
concerning everything that you wish. When he has finished, and goes away  
again, you place a tablet of reading(?) the hours upon the bricks and you place  
the stars upon it and write your purpose(?) on a new roll and place it on the  
tablet; then he(?) makes your stars appear which are favourable for your  
purpose(?).<sup>47</sup>

All translation involves ‘a choice between possibilities and allows the  
personal factor a certain amount of play’.<sup>48</sup> The modern counterpart of an ancient  
word may be narrower, or broader, in its perspective, and introduce a concept foreign  
to its original use.<sup>49</sup> How a translator views the subject affects what is perceived in a  
text and a word may be used derisively or have become pejorative to the modern ear:  
‘conjurer’ or ‘wizard’ creates a different image to ‘conjuration priest’, for example.<sup>50</sup>  
Such ethnocentrism can, albeit unconsciously, powerfully affect a reader’s  
apperception. As Jacobsen warns: ‘differences of two worlds and of four millennia  
may not be ignored’.<sup>51</sup>

Ignorance of astrological concepts may hinder or distort translation and  
interpretation, or fail to pick up discrepancies or incorporation of earlier primary

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<sup>47</sup> Griffith, F. U., and H. Thompson, *The Leyden Papyrus: An Egyptian Magical Book*, (New York: Dover Publications Inc, 1974) reprint of H. Grevel & Co. (London 1904) p.47. The questions marks form part of the ‘translation’.

<sup>48</sup> Jacobsen, Thorkild, ‘Sumerian Mythology: A Review Article’, *Journal of Near Eastern Studies*, Vol.5, No.2 (Apr.1946) pp.128-152 [hereinafter Jacobsen Review] p.129-30. See Lucas p.401 who points out, for instance, that turquoise is often mistranslated as malachite, and Geraldine Pinch *Votive Offerings to Hathor* (Oxford: Griffith Institute, 1993) [hereinafter Pinch Hathor]

<sup>49</sup> See Schmidt, Robert, (trans), and Robert Hand (ed), *The Astrological Record of the Early Sages in Greek*, Project Hindsight, Greek Track Vol X [The Golden Hind Press: Berkeley Springs, 1995] [hereinafter *Early Sages*] Glossary p.79.

<sup>50</sup> Mirecki, Paul, ‘The Coptic Wizard’s Hoard’, *The Harvard Theological Review*, Vol.87, No.4 (Oct. 1994) pp.435-460 and Struck. See also Reiner *Astral Magic*.

<sup>51</sup> Jacobsen Review p.152

sources, which is why the main authorities consulted for this study are academics who have an understanding of astrology and ancient languages.<sup>52</sup>

The accidental nature of the survival of textual material means that it is by no means an accurate sampling, nor do individual specialists necessarily take a broad view.<sup>53</sup> Papyri clearly based on auspicious timing are generically labelled ‘horoscope’ in the demotic papyri, which may be why when Hutton sought papyri to confirm invocation of celestial power he found none and thus assumed the practice non-existent.<sup>54</sup> As will be seen, however, in accordance with esoteric practice, timing and invocation can be encoded, particularly in iconography, rather than explicitly revealed.<sup>55</sup> A papyrus labelled ‘Orbit of the Moon’ appears to indicate favourable timing and parallels a similar Mesopotamian text but, to a professional astrologer, may also connect to the monthly movement of the moon around an individual’s chart, or to a natal placement:

Moon in Virgo: anything is rendered obtainable. In Libra; necromancy. In Scorpio, anything inflicting evil. In Sagittarius, an invocation or incantations to the sun and moon. In Capricorn, say whatever you wish for best results.<sup>56</sup>

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<sup>52</sup> The modern translators of *Alfonso’s Lapidary* questioned the source of the word ‘Chaldean’, for example, being unaware that it was applied to astrologers in the ancient world, p.13.

<sup>53</sup> Reiner, Erica ‘Fortune Telling in Mesopotamia’, *Journal of Near Eastern Studies*, Vol.19, No.1 (Jan 1960), pp.23-35 [hereinafter Reiner Fortune Telling]

<sup>54</sup> *Demotic papyri* PGM III p.275-81. See Hutton *Astral Magic* p.13-14. Hutton appears to have consulted the first edition of the *Demotic papyri* and many texts were added to the second edition. Not all papyri have yet been translated, see *Demotic Papyri* preface to second edition on the constantly appearing flow of translations, and Alexander Jones, ‘A Classification of Astronomical Tables on Papyrus’ [hereinafter Jones] in N.W. Swerdlow (ed), *Ancient Astronomy and Celestial Divination* (Cambridge, Mass: MIT Press, 1999) with regard to over 4000 unpublished papyri and thousands of fragments in the Ashmolean museum alone. Jones makes the point that a papyriologist cannot have the requisite astronomical skills to identify and translate relevant papyri. See also Chapter 1 hereof and *Astrological Timing of Rituals* for instances where the timing is coded into the imagery.

<sup>55</sup> For esoteric cryptology see Riffard p.70. For examples of similar encoding in Mesopotamia see Reiner *Astral Magic* Chapter VII and in Egypt John Anthony West, *The Traveller’s Key to Ancient Egypt*, (Wheaton, Ill: Quest Books, Theosophical Publishing House, 1995) [hereinafter West] p.150 and 430.

<sup>56</sup> *Demotic Papyri PCM VII 284-99*. For the Mesopotamian version, see Reiner *Astral Magic* p.108ff and Chapter VIII.

Without further portions it is impossible to establish the purpose of the original but awareness of astrological practice can make a subtle difference to how texts and artefacts are perceived. When Evans, a historian of astronomy, looked at the Bianchi tablet, he recognised the inner rings could have been used to examine synastry of two birthcharts, a technical astrological concept.<sup>57</sup>

One of the most thorough examinations of the zodiac-stone tradition was by Kunz in 1913. He is representative of other writers when he says:

[according to] the astrologers of the ages gone by ... each gem possessed certain planetary attractions peculiar to itself, certain affinities with the various virtues, and a zodiacal concordance with the seasons of the year. Moreover, these early sages were firm believers in the influence of the gems in one's nativity.<sup>58</sup>

Kunz cites Josephus and his insistence that the tradition of associating stones with the zodiac, months and seasons arose out of the Breastplate of the High Priest (hereinafter Breastplate), an example of an object retrospectively acquiring an esoteric history that may be different to its original function.<sup>59</sup>

Ancient texts easily become corrupted by scribal errors and subsequent misunderstandings. It is essential to examine early primary sources as directly as possible although many are preserved as fragments or within later writers. Where

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<sup>57</sup> See Evans p.7. Synastry compares two charts, one method being to superimpose one on another. Evans has not yet replied to my enquiry as to the extent of his astrological knowledge but this is a technical term that can be argued to be accessible to those with some astrological familiarity.

<sup>58</sup> Kunz p.1

<sup>59</sup> Such an association with the zodiac must be a cultural retrojection as, according to present academic consensus, the zodiac had not been established at the time of the Breastplate - although it had been formatted by the time the oral narrative was attested during the Jewish exile to Babylon. See chapter 3 of this dissertation and Neugebauer O. and Richard A. Parker *Egyptian Astronomical Texts III, Decans, Planets, Constellations and Zodiacs* (Providence, Rhode Island: Brown University Press 1969) [hereinafter Neugebauer and Parker] p.203ff and, for an alternative view with regard to a much earlier dating for the Egyptian zodiac, see the series of papers by A.A. Gurshtein, 'The Great Pyramids of Egypt', *Physics Doklady*, Vol.41, No.5, 1996, pp.228-232.

feasible, several translations have been consulted and compared. Books also gain reputations as, or rely upon, ‘secret texts’ containing esoteric knowledge.<sup>60</sup> Writers, ancient and modern, rely on Theophrastus and Pliny neither of whom mentions a zodiac-stone connection although Pliny makes reference to a text by Zacharias the Babylonian, now lost, concerning destiny and precious stones.<sup>61</sup> The Zacharias treatise probably reworked a cuneiform manual on stones, fragments of which still exist, as the Mesopotamians believed that stones could influence the affairs and destiny of a wearer.<sup>62</sup>

Budge illustrates difficulty in establishing attribution. In *Amulets and Superstitions*, which has no bibliography, he cites sources for stones and prophylactic qualities, but in other chapters no sources are given for zodiac-stone attributions that follow, Budge merely citing ‘the old astrologers’.<sup>63</sup> He credits Gadd for ‘many facts concerning ancient Mesopotamian beliefs about precious stones’ but cites no written source.<sup>64</sup> Budge also asserts that astrologers’ belief that ‘each stone possessed a sort of living personality, which could experience sickness and disease, and could become

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<sup>60</sup> Riffard, p.68-69.

<sup>61</sup> Personal perusal of the Theophrastus text shows no astrological references whatsoever, and see Scarborough p.332 and Tester. For Pliny see C. Plinius, *The Second Booke of The Historie of Nature* (1601) trans. Philemon Holland on <http://penelope.uchicago.edu/holland/pliny2.html> consulted 1.1.2006 and Pliny, *Natural History: Books 36-37*, Loeb Classical Library, D.E. Eichholz (trans) (Cambridge: Harvard University Press, 1962 edition) [hereinafter Pliny 37].

<sup>62</sup> Annus, Amar, *The God Ninurta in the Mythology and Royal Ideology of Ancient Mesopotamia* (Helsinki: University of Finland New Assyrian Text Corpus Project, 2002) [hereinafter Annus], p.164.

<sup>63</sup> See Budge Amulets. Budge was keeper of Egyptian Antiquities at the British Museum,

<sup>64</sup> Gadd is deceased and it has not been possible to trace any of his works that specifically relate to precious stones. See Budge Amulets Chapters xv, xxiv and xxv, p. 417-420, p.423-426. Budge cites Groth, *Grundriss der Edelsteinkunde*, Leipzig 1887; Lorenz, *Die okkulte Bedeutung der Edelsteine*, Leipzig 1915; Pachinger, *Glaube und Oberglaube im Steinreich*, the works of Dr. S. Seligmann on the Evil Eye (*Der böse Blick*, Berlin, 1910; and *Die Zauberkräft des Auges und das Berufen*, Hamburg, 1922) none of which are available for consultation in England. See also Theophrastus and Pliny Book II and French and German texts such as Fernand D. de Mely, *Les Lapidaires de l'antiquité et du moyen âge*, 3 vols. (Paris 1896-1902) cited in *The Book of Secrets of Albertus Magnus* Oxford University Press [1973]. Dr. M.L. Stibbe, *Edelsteen en Mens* (no publisher or date) cited in *The Magic of Precious Stones*, Budge Amulets cites four further German sources. These texts are out of print and unavailable from a web search but could usefully form the basis of another study. A. Closs, *Die Steinbücher in kulturhistorischer Uberschau, Joanneum, Mineralogisches Mitteilungenblatt 1*, 34 seiten (Graz 1958) cited in Research Sources for Astrology <http://www.smoe.org/arcana/astrol.5html> [consulted 22.10.2004].

old and powerless and even die', paralleled beliefs in Babylonia in the third millennium BCE and in Egypt and early Christianity but no further details are given.<sup>65</sup> Similarly, in a wide-ranging survey of ancient astrology, Schoener states that in Hellenistic Iatromathematic astrology each stone, plant and animal was assigned to a god but, in an otherwise well-attributed paper, gives no source.<sup>66</sup>

The uncertainty as to date for the *Romance* means that it may or may not encompass the Hermetic tradition that arose out of syncretisation of the plurality of cultures centred in Alexandria but this cannot be pursued at this time.<sup>67</sup> As part of ongoing research into the zodiac-stone tradition, I have already examined the antecedents of correspondence in Egypt and the chain of being in Mesopotamia and this dissertation builds on that foundation.<sup>68</sup>

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<sup>65</sup> Budge Amulets p.323

<sup>66</sup> But see Bouche Leclercq chapter 15 for a detailed examination of Iatromathematic medicine

<sup>67</sup> See the Introduction to Copenhaver, Brian P., *Hermetica* (Cambridge: Cambridge University Press, 1992) and the introduction to Liber Hermetis.

<sup>68</sup> For a deeper discussion on the Egyptian roots of correspondence see the references cited in my articles on <http://www.astrozero.co.uk/articles/Correspondence.htm> [hereinafter Hall Correspondence] and <http://www.astrozero.co.uk/articles/chain.htm> [hereinafter Hall Chain] See also material in Judy Hall, 'The Crystal Zodiac: exploring the origins of birthstones', *The Astrological Journal* Vol.49, No. 2, March/April 2007, p.6-13 [hereinafter Hall Zodiac] and 'The Crystal Horoscope', *The Astrological Journal* Vol.51, No.4, July/August 2007.

## Methodology

This study is approached from a cross-disciplinary, empirico-historical and mythopoeic context and, following Voss, takes up an anagogic position that utilises my own astrological knowledge'.<sup>69</sup>

Phenomenology as a methodological model allows incorporation of artefactual and textual evidence with relevant anthropological material.<sup>70</sup> Such an approach enables 'engagement and participation rather than detached analysis and theorizing'.<sup>71</sup> Simply taking 'evidence' from texts without viewing artefacts can be misleading. Egyptian texts make little mention of turquoise, for example, but the enormous numbers of turquoise scarabs, amulets and jewellery and its dedication to the goddess Hathor from Neolithic times, attest to its value in that world, and demonstrate how artefacts and iconography can elucidate cuneiform, hieroglyphic or demotic texts.<sup>72</sup>

In view of the age of source material, the primary methodology has been that of grounded theory via an extensive literature search through relevant books and scholarly articles supplemented by discussions with academic authors on points arising.<sup>73</sup>

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<sup>69</sup> See Voss, Angela, 'From Allegory to Anagoge: the Question of Symbolic Perception in a Literal World' on <http://www.skyscript.co.uk> consulted 6.3.2007 [hereinafter Voss] particularly p.7; , Wouter J., Hanegraaff, 'The Birth of a Discipline' [hereinafter Hanegraaff Intro] pp. xii-xvii, in Faivre and Hanegraaff, p.xii, and see Nick Campion, 'Editorial', *Culture and Cosmos* Vol.3, No.2, Autumn/Winter 1999 [hereinafter Culture and Cosmos] pp.1-2. See also Jenny Blain, *Nine Worlds of Seid-Magic: Ecstasy and neo-shamanism in North European paganism* (London and New York: Routledge, 2003) p.150 and Wengrow p.606 who cites R.G. Collingwood, *The Idea of History* (Oxford 1946) p.202. Hutton Astral Magic p.260. For a discussion of the insider/outsider dilemma, see also McCutcheon, Russell T. (ed), *The Insider/Outsider Problem in the Study of Religion* (London: Cassell, 1999).

<sup>70</sup> See Naydler Shamanic Chapter 5 especially p.129ff for a detailed defence of the objectivity gained on approaching phenomena with empathy.

<sup>71</sup> Naydler, p.125.

<sup>72</sup> See Pinch Hathor. A tour of any Egyptian museum confirms the ubiquitous presence of turquoise artefacts.

<sup>73</sup> For an explanation of grounded theory see Haig, Brian D, 'Grounded Theory as Scientific Method' at [http://www.ed.uiuc.edu/EPS/PES-yearbook/95\\_docs/haig.html](http://www.ed.uiuc.edu/EPS/PES-yearbook/95_docs/haig.html) and Barbara Kinach, 'Grounded Theory

One of the major difficulties was in obtaining coherent translations, not only from original texts and languages but also of modern scholarly articles that I am not linguistically competent to translate. Assyriologists must speak German as that is the language in which most papers on the subject are written.<sup>74</sup> The same is substantially true for Egyptian material, particularly on stones. As a result, certain texts were inaccessible.<sup>75</sup> It also meant that a weakness in the study was reliance on interpretation by people who were not necessarily familiar with astrological or magical concepts. A major strength, however, was that texts and artefacts were examined by experts in their field notwithstanding that it was based on personal viewpoint.<sup>76</sup>

In this study, following Faivre, astrology and associated stone attributions are approached as part of the notions and currents of the form of esotericism that is based on ‘the doctrine of universal correspondences, living nature, imagination/mediations, and transmutation’, a concordance of traditions and transmission of knowledge that can encompass Corbin’s ‘imaginal realm’.<sup>77</sup> In this view, the practice of astrology is an amalgam of hermeneutic signs and gnosis, the whole universe being alive with correspondences between different levels of reality.<sup>78</sup>

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as Scientific Method: Haig-Inspired Reflections’ on [http://www.ed.uicu.edu/EPS/PES-yearbook/95\\_docs/kinach.html](http://www.ed.uicu.edu/EPS/PES-yearbook/95_docs/kinach.html)

<sup>74</sup> Postgate in personal email correspondence 23.1.07.

<sup>75</sup> I employed a translator for the major sources where texts were available. Due to the limitations of the inter-library loan service and the impossibility of purchasing some texts, certain works remained inaccessible. Due to their rarity, texts could not be copied, and could only be consulted in the university library. Consulting them without a translator present was a pointless exercise.

<sup>76</sup> Texts in the bibliography were supplemented by personal email correspondence with Professors Henig, Postgate, Evans and Pinch.

<sup>77</sup> Faivre p.2-3. For the imaginal world see Faivre p.76 and Henry Corbin, ‘Mundus Imaginalis or the Imaginary and the Imaginal’, Spring 1972 p.1-18 [hereinafter Corbin].

<sup>78</sup> Hanegraaff, Wouter J. ‘On the construction of “esoteric traditions”’ [hereinafter Hanegraaff Esoteric Traditions] pp.11-61 in Faivre and Hanegraaff, p.11; and Faivre p.7

## Chapter 1: Authentic practice and astrologers' apparatus

*Zachalias of Babylon... attributes man's destiny to the influence of precious stones.*

*Pliny*<sup>79</sup>

This opening chapter establishes an affiliation between astrology and stones, moving into speculative areas such as the method of practice of astrology in Graeco-Roman Egypt and Greece.<sup>80</sup> However, it first examines the dating of the *Romance* and commencement of Hellenistic natal, or horoscopic, astrology and the traditions out of which it arose.<sup>81</sup> If the astrological consultation in the *Romance* was rooted in an authentic practice contemporaneous with Alexander's birth, it describes a use of horoscopic and karmic astrology to predict and time that birth before such a practice is generally deemed to have been established in Greece - although classical Greek philosophers such as Plato, Aristotle and Pythagoras exhibit influences from Mesopotamian astro-cosmology long before the Alexandrian conquest.<sup>82</sup> Alternatively, the *Romance* could be retrojecting a practice from a hundred, and potentially several hundred, years after Alexander's birth depending on the date the novel was composed.

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<sup>79</sup> Pliny 37 p.301

<sup>80</sup> See Evans p.36-37. See also Franz Cumont, *Astrology and Religion among the Greeks and Romans* (New York: Dover Publications, Inc. edition, 1960) for a somewhat out-dated view of astrology in Greece, and Tester for an overview of the situation.

<sup>81</sup> Horoscopic astrology pertains to the birthday, in other words natal astrology, and karmic astrology to 'the beginning', seeking the best timing both in electional and event astrology, see Schmidt, Robert H. 'Types of Hellenistic Astrology', *Project Hindsight*, <http://www.projecthindsight.com/articles/types.html> [hereinafter Schmidt Types] consulted 02.05.2007

<sup>82</sup> See Waterfield, Robin, 'The Evidence for Astrology in Classical Greece', *Culture and Cosmos* p.3-15 [hereinafter Waterfield]. Personal horoscopic astrology is deemed to have been popularly practised in Greece and Egypt from circa 280 BCE when the Babylonian priest Berossos founded an astrological school in Kos. See Schoener p.7. Schmidt gives the date as circa 275 BCE. In the *Romance* Nectanebo elects the exact birthtime from his position at Alexander's mother's side during the birth, see Stoneman p.43-44. For a brief overview of philosophical influences see J.S. McMinn 'Fusion of the Gods: a religico-astrological study of the interpenetration of the East and the West in Asia Minor', *Journal of Near Eastern Studies* Vo. XV, Oct. 1956 No.4 pp.201-213 [hereinafter McMinn] p.1

## Locating the *Romance* in historical time

As the Roman geographer Strabo commented: ‘all who wrote about Alexander preferred the marvellous to the true’.<sup>83</sup> An extensive reservoir of material, probably oral, was collated by editors including pseudo-Callisthenes – purported to be Alexander’s historian to give the work authority. That the *Romance* is not a factual contemporary account is agreed, hence it being termed an early ‘novel’ as legendary and historical elements were woven together. Its date is contentious.<sup>84</sup> Scholars including Pingree opine ‘no earlier than second century’, whilst Ausfeld and Pfister argue its core is second century BCE.<sup>85</sup> Speculating that the *Romance* derives from, as yet unexamined, demotic material circulating in the early Hellenistic period after Alexander’s death, Jasnow judges that a date of circa 250 BCE is plausible and that the novel is polemical, presenting Alexander as a true son of Egypt to support Ptolemaic rule.<sup>86</sup>

Stoneman takes the view that non-historical Egyptian elements of the *Romance* are authentic and the work dates to the end of the third century BCE, some fifty years after Alexander’s birth.<sup>87</sup> He cites as ‘crucially Egyptian’ the narrative of the Egyptian priest, Nectanebo, presented as a former ruler of Egypt who flees Egypt

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<sup>83</sup> Strabo 2:1:9 cited in Stoneman p.9. Strabo can be found on *Strabo Geography* (Loeb Classical Edition 1917) on [http://penlope.uchicago.edu/Thayer/E/Roman/Texts/Strabo?1A\\*.html](http://penlope.uchicago.edu/Thayer/E/Roman/Texts/Strabo?1A*.html) consulted 27.04.2006. See also Lynn Thorndike, *History of Magic and Experimental Science during the first thirteen centuries of our era* (New York: Columbia University Press, 1923) [hereinafter Thorndyke] for a survey of stones and magical events associated with Alexander in later works.

<sup>84</sup> See Berg, Beverley, ‘An Early Source of the Alexander Romance’, *Greek, Roman and Byzantine Studies*, Vol. 14, Winter 1973, Number 4, pp.382.387 [hereinafter Berg], p.383 and Thorndyke, Vol. 3 for a discussion as to influence in the Middle Ages.

<sup>85</sup> For dating and content see Stoneman, Pingree Vol.II p.256, Jasnow, and Berg p.382ff who surveys a wide selection of mid twentieth century commentators’ views as to dating and source.

<sup>86</sup> Jasnow p.96 points out that there are thousands of demotic papyri awaiting an editor. See Jasnow for additional evidence supporting this supposition and also for scholars who oppose the idea and p.101 as to dating.

<sup>87</sup> Stoneman p.9

following a vision.<sup>88</sup> The historical Nectanebo II fled after the Persian conquest in 343 BCE, an event post-dating Alexander's birth.<sup>89</sup> There appears little scholarly comment on this discrepancy due, it would seem, to two astrological episodes in the novel being overlooked. It is the 'Nectanebo' element of the story with which we are concerned as it is he who allegedly reads the synastry in the *Romance* with the assistance of the stone horoscope: an astrological element that appears in the earliest recension and which could have a basis of truth unrelated to its supposed exponent. The stone horoscope could also be a retrojection of a practice contemporaneous with the writing of the novel and precedents for the practice will be examined later. Nectanebo's name, as with Callisthenes, follows the established esoteric practice of 'mystic identification' to give authority and continuity to a work.<sup>90</sup> Herein, it represents the astrologer in the *Romance* without implying historicity. An early Ethiopic version of the *Romance* opens with the statement:

There lived in the land of Egypt a king who was ... a famous magician and a sage, and he was deeply learned in the wisdom of the Egyptians. ... skilled in the knowledge of the stars and of their seasons and in the knowledge of the astrolabe and in the casting of nativities... And by his learning and by his observations of the stars Nectanebus [sic] was able to predict what would befall anyone who was about to be born.<sup>91</sup>

Thereby presenting 'Nectanebo' as a learned astrologer at a time when the academic consensus is that there was no astrology in Egypt and little in Greece.

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<sup>88</sup> Stoneman p.36-37

<sup>89</sup> For a discussion as to Nectanebo's historical validity and dates see Stoneman page 8-10 and Berg p.385 who cites Braun, *History and Romance in Graeco-Oriental Literature* (Oxford 1938).

<sup>90</sup> See Berg and Riffard p.68-69 for an explanation of 'mystic identification' and Flowers p.25 for magical authority.

<sup>91</sup> Translation by Budge cited without attribution in Thorndyke II p.555. It has not been possible to obtain Budge's translation.

Berg takes the view that the Nectanebo portion is extracted from an earlier Alexandrian novel but does not state whether the astrological consultation is included in that text.<sup>92</sup> In the next section, therefore, the dating of Hellenistic astrology and possible antecedents in Egypt will be examined to ascertain if an astrological practice was in place during the events outlined in the *Romance* or at the time the novel was written.

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<sup>92</sup> *The Dream of Nectanebo* of which no English translation has so far been obtained. See Stoneman and Berg p.383 for a further discussion.

## Hellenistic astrology and its antecedents

Reputedly, the Alexandrian conquest was instrumental in spreading astrology across the ancient world from Greece to India, implying that a fully formed system existed during Alexander's lifetime. Astrological texts and a lapidary are attributed his tutor, Aristotle, although these may be later pseudo-works.<sup>93</sup>

Hellenistic astrology, however, appears to be a syncretic fusion of Mesopotamian omen, observational and horoscopic astrology with Egyptian additions such as decans and lots, and original Greek contributions including the '*horoscopus*', although decans are also delineated by Zoroaster and Teucer of Babylon amongst others.<sup>94</sup> Academic opinion rarely supports an earlier, uniquely Egyptian or Greek astrological tradition and current consensus relies upon Mesopotamian influence.<sup>95</sup>

The practitioner in the *Romance* uses astrology at a time when the received wisdom is that there was little or no Hellenistic astrology - although Waterfield has demonstrated that there is a considerable hidden history suggestive of classical Greek astrology at

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<sup>93</sup> There is no evidence that these texts are actually penned by Aristotle or that Alexander himself was an astrological authority despite medieval 'translations' and citations of his work, see Thorndyke III, p.255, 259, 260. It is outside the scope of this dissertation to discuss whether all elements and influences of Indian astrology are Hellenistic. For a discussion see Robert Hand, 'The History of Astrology: Another View' Astro Dienst, [http://www.astro.com/people/hand\\_his\\_e.htm?xrn=11781339820.665493641122342](http://www.astro.com/people/hand_his_e.htm?xrn=11781339820.665493641122342) 1995 [hereinafter Hand Astrology] consulted 2.5.2007, Robert H. Schmidt, 'The relation of Hellenistic to Indian astrology', *Project Hindsight* on <http://www.projecthindsight.com/articles/vedic.html> consulted 02.5.07. See also the discussions in Pingree, Campion and Waterfield.

<sup>94</sup> See Schmidt Hellenistic Astrology p.4., Tester p.80, and see the discussion in Campion, Hand History, Tester p.12ff, and Liber Hermetis. The age of the modern twelve-part zodiac is variously said to be between the seventh and fifth centuries BCE. It appears on a cuneiform inscription of 419 BCE and a surviving Mesopotamian 'horoscope' is dated to 410 BCE, well before the birth of Alexander in 356 BCE. For details of early zodiacs and horoscopes and the history of Greek astrology, see Schoener who cites for an early zodiac 'From scroll A of the ruler Gadea of Lagah' 1 17-VI 13 Kaiser, Otto, ed. 1986-1991 pp.23-27, Wilhelm Knappich *Geschichte der Astrologie* Frankfurt/Main 1988 p.39, and for a horoscope Franz Cumont *L'Egypte des astrologues* (Brussels 1937). See also Whitfield, Rochberg-Halton p.121 and Campion. Alexander's birthdate is given in the introduction to Stoneman p.2. See Hand and Rochberg-Halton p.1 who states horoscopic astrology to be a Hellenistic invention. See Francis Schmidt, 'Ancient Jewish Astrology: An Attempt to Interpret 4Qcryptic (4Q186)', trans. Jeffrey M. Green, on <http://orion.huji.ac.il/symposiums/1st/papers/Schmidt96.html> consulted 08.06.2007 [hereinafter Schmidt AJA]. For Zoroaster see *Early Sages* p.23ff.

<sup>95</sup> But see the discussion in the introduction to Liber Hermetis.

least a century before Alexander's birth.<sup>96</sup> The question must, therefore, be asked as to whether horoscopic astrology was actually practised in Greece and Egypt at the time of Alexander's birth in 356 BCE. The stone horoscope practice, if authentic, could be a retrojection but may contain pre-existing esoteric elements.<sup>97</sup>

There is a difference between historical veracity and esoteric validity.<sup>98</sup> A longstanding esoteric tradition attests that astrology came out of Egypt, where astrologers were known as 'Chaldeans'. Considerable ancient material attests to legendary ancient Egyptians astrologers such as Hermes Trismegistus, and Petosiris and Nechepso and, circa 334 CE, Firmicus Maternus revealed 'all that the divine Ancients had discovered in the secret chambers of ancient Egyptian sanctuaries'.<sup>99</sup> A fragment of the work attributed to Nechepso and Petosiris delineates an esoteric lineage from Hermes to the authors.<sup>100</sup> Artepanus, a second century, Hellenistic Jew allegedly held that when Abraham had arrived in Egypt he taught the Pharaoh astrology and that Moses was Hermes Trismegistus, which may reflect a cultural tradition.<sup>101</sup>

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<sup>96</sup> Waterfield. Horoscopic astrology is generally deemed to be a Hellenist creation no older than the fourth century BCE, see Tester who cites O. Neugebauer, *The Exact Sciences in Antiquity*, 2<sup>nd</sup> edn. (Providence: Rhode Island, 1957) p.80, Robert H. Schmidt, 'Hellenistic Astrology: An Overview' *Project Hindsight*, [hereinafter Schmidt 'Hellenistic Astrology'] on <http://www.projecthindsight.com/articles/hellenistic.html> consulted 02.05.2007, *Early Sages* p.xxiii, and see Hand History: the essay forms the introduction to *Early Sages* pp.i-xv and is in rebuttal of a 'large number of factual errors' in an article 'A Brief Introduction to the History of Astrology' (no further details given) [hereinafter Hand History], also Whitfield and Bouche Leclercq.

<sup>97</sup> See also Rochberg-Halton p.121 and Campion. Alexander's birthdate is given in Stoneman p.2.

<sup>98</sup> See Riffard and Hanegraaff p.22-25.

<sup>99</sup> *Mathesis* VII, trans. A-J. Festugiere, *Troise devoirs paiens* La Colombe 1944 cited in Riffard p.72.

<sup>100</sup> Papyrus Fragment CCAG 8, 4:95 in *Early Sages* p.17.

<sup>101</sup> Cited in Zoller, Robert, *Jewish Astrology* (London: New Library Limited, 2004) without attribution to source. See Robert Schmidt, 'Catalogue of Hellenistic Astrologers and their writings', *Project Hindsight* on <http://www.projecthindsight.com/reference/catalog.html> consulted 4.5.07 [hereinafter Schmidt Catalogue] p.1 and Christian Jacq, *Magic and Mystery in Ancient Egypt*, trans. Janet M. Davis (Souvenir Press: London, 1998) [hereinafter Jacq] p.44. Jacq has opined that a detailed study of hieroglyphic texts would be fruitful. In a personal conversation in Egypt in 1987 Jacq gave his view that there was a form of astrology in Egypt prior to Hellenisation but that it was doubtful whether the Egyptians would have divided the practice into astronomy and astrology, seeing it as one integrated discipline.

Herodotus attested to the use of astrology when he visited Egypt circa 350 BCE just after Alexander's birth: 'I pass to other inventions of the Egyptians. They assign each month and each day to some god, they can tell what fortune and what end and what disposition a man shall have according to the day of his birth'.<sup>102</sup> Whilst this is not explicitly horoscopic astrology, it may refer to an indigenous form of Egyptian astrology based on decans and lots as, although there are no extant texts, the material is incorporated in later writers.<sup>103</sup> If these contentions are correct, then 'Nectanebo' could potentially have taken that early system from Egypt to Greece and used it at Alexander's birth.

Plato, teacher of Alexander's tutor Aristotle, writing in fifth century BCE Greece was clearly aware of divination by signs from the movement of the stars, in other words astrology:

To describe the dancing movements of these gods, their juxtapositions and the back-circlings and advances of their circular courses on themselves; to tell which of the gods come into line with one another at their conjunctions and how many of them are in opposition, and in what order and at which times they pass in front of or behind one another, so that some are occluded from

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<sup>101</sup> Classical Review (unknown author and issue) citing Pingree's translation *The Thousands of Abu Ma'shar* (London: Studies of the Warburg Institute, 1968) [hereinafter Pingree Abu Ma'shar]. It has not yet been possible to confirm the reference. See Schmidt Catalogue p.2, Campion, and Evans p.2 for a discussion as to the dating and authorship of this document. Campion cites Otto van Hosen Neugebauer, *Greek Horoscopes*, The American Philosophical Society, Philadelphia 1959, no.137, p42. Cumont supports the 'about the year 150 BCE' date, see p.43 (Dover Edition). See Hand p.7 and Whitfield p.26 with regard to further ancient texts for and against the practice of astrology. See also Evans.

<sup>102</sup> Herodotus cited in Whitfield p.26 (no further source given).

<sup>103</sup> Schmidt Catalogue p.1. Some later texts such as Valens incorporate earlier material from this system.

our view to reappear once again, thereby bring terrors and portents of things to come to those who cannot reason.<sup>104</sup>

Whether Plato is referring to omen-related ‘signs’, purely Greek astrology or a system ‘inherited’ from Babylon is not clear but belief that astrology had antecedents in Egypt continued for at least a millennium: the ninth century Arabic astrologer Abu Ma’shar asserting that Hermes was the son of an Egyptian who learned astrology in Babylon.<sup>105</sup>

The cynic philosopher Diogenes Laertius alleged that, according to Aristotle, Socrates’ death in 399 BCE was forecast from his birth chart by a ‘Chaldean’.<sup>106</sup> For Hand, horoscopic astrology begins in the third phase of Mesopotamian astrology from circa 450 BCE.<sup>107</sup> Assuming that this view, upheld by other scholars, is justified and Diogenes is correct, Socrates could have had his chart read at an early stage in the development of Hellenistic horoscopic astrology, which must then have reached Greece either direct from Mesopotamia or via Egypt well before Alexander conquered Babylon in 331 BCE.<sup>108</sup> Socrates’ natal chart reading could however, as with Alexander, be retrojection.<sup>109</sup>

Diodorus Siculus (90-21 BCE) wrote that ‘there is perhaps no land where the order and movement of the stars are observed so exactly as in Egypt. [Astrologers]

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<sup>104</sup> Zeyl, Donald J., (trans), ‘Timaeus’, 40c-d, pp. 1224-1291 in John M. Cooper (ed) *Plato Complete Works* (Indianapolis: Hackett Publishing Company) 1997) [hereinafter Plato Complete Works] p.1244. Waterfield p.7 relies upon his own translation of the same passage.

<sup>105</sup> See Waterfield with regard to cultural transmission and see Pingree Abu Ma’shar.

<sup>106</sup> See Hand and Rocherg-Halton p.1 who states it to be a Hellenistic invention.

<sup>107</sup> Hand p.6 follows Van der Waerden but no attribution is given. See also Champion.

<sup>108</sup> Persia conquered Babylonia and Egypt in 539 BCE. For a discussion see Waterfield and Thomas McEvelley *The Shape of Ancient Thought* (New York: Allworth Press, 2002) [hereinafter McEvelley] particularly ‘Diffusion channels in the pre-Alexandrian period’ pp.1-22. See also Henri Frankfort, ‘Monumental Architecture in Egypt’, *The American Journal of Semitic Languages and Literatures* Vol.58, No.4 (Oct.1941) pp.329-358. Frankfort has demonstrated a cultural exchange stemming back to pre- and proto-dynastic Egypt but his argument regarding cultural exchange acting as an early catalyst for Egyptian development does not appear to have been taken up by later scholars.

<sup>109</sup> See Evans p.1 citing O. Neugebauer, ‘Greek horoscopes’, *Memoirs of the American Philosophical Society* *xviii* (1959). This does not however rule out the possibility of the contemporaneous existence of earlier horoscopes.

have kept records in which these observations have been written down for an incredible number of years. Here one finds information on ... the good or bad influence of each star.’<sup>110</sup> This is indicative of an enduring tradition that there were ancient Egyptian astrologer- or astronomer-priests as shown on Egyptian statues.<sup>111</sup> In the view of Jacq, Spell 144 of the Book of the Dead describes an Egyptian magician-priest, in an act of astral magic, observing the position of the stars and then consulting his astrological books, available only to those who have been initiated for many years, ‘in silence and in secret’. If Jacq’s judgement is correct, knowledge of astrology appears to be an essential aspect of the practice of magic: ‘familiarity with the stars is indispensable if one is to use the forces of the cosmos, to grasp the light and seize the moon in one’s hand’ – an esoteric concept shared with Mesopotamia.<sup>112</sup>

The Greek astronomer and mathematician Eudoxus (c.408-347 BCE), having studied in Egypt, purportedly stated that the Chaldeans ‘predict and mark out the life of every man on the basis of his birthdata’.<sup>113</sup> In the second astrological episode in the *Romance*, ‘Nectanebo’ predicts the future for the child being born according to the sign rising from moment to moment, a demonstrably first century BCE practice.<sup>114</sup> A horoscopic text dating to the mid-Herodian period found with other astrological fragments at Qumran relates physiology and spiritual destiny to the moment of birth

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<sup>110</sup> Jacq, p.44. Jacq cites I.71 and 49 for this reference which has yet to be checked. Archaeologists have yet to identify that information or the golden circle in the courtyard of the tomb of ‘Ozymandias of Thebes’ - the Ramesseum - which was, according to Diodorus, 365 cubits in circumference and divided into 365 parts, each one of which had written alongside it the rising and setting of the stars with the predictions which Egyptian astrologers drew from them.

<sup>111</sup> See for example the illustration of the High Priest of Heliopolis in his star-decked leopardskin robe in Erman, Adolf, *Life in Ancient Egypt* New York, reprinted Dover 1971) p.297.

<sup>112</sup> See Jacq p.44 and Reiner *Astral Magic*, Chapter VI.

<sup>113</sup> Eudoxus work is lost and this comment survives in Cicero, *De div.ii. 42.87* cited in *Classical Review*: New ser. Vol.20. No.3 p.403 in an untitled review article [hereinafter Unknown Classical Review] on <http://www.jstor.org/view/0009840x/ap020474/02a00720/I?searchUrl=http%3a/> consulted 14.5.2007. It has not been possible to access the preceding page to ascertain the author.

<sup>114</sup> Stoneman p.43-44. For the effects of the rising sign and the decans see *Early Sages* particularly p.23, p.50, p.71ff.

and the rising sign.<sup>115</sup> The predictions are specific, paralleling the *Romance*. A typical example from Qumran is:

He who is born on day X of the week in (the sign of) Jupiter or (the sign of) the moon will be a leader and wise, will take two wives... at the age of 57 he will be an officer in the king's treasury or in his palace to run the affairs of state and will die at the age of 70.<sup>116</sup>

In the Qumran system, each sign also has an animal allotted, reflecting Egyptian astrology and extant zodiac boards, potentially a cross-cultural fertilisation.<sup>117</sup>

Fragments from Qumran can be read in the context of conception, rather than birth, astrology. The ancients attributed to Zoroaster, and also the Egyptian school of Nechepso and Petosiris, a system by which the sun passing through the decans during gestation causes the foetus to 'ripen' imparting specific qualities.<sup>118</sup> In the *Romance*, 'Nectanebo', having prophesied Alexander's birth from 'intercourse with an incarnate god', effectively elects the conception time by impersonating that god and impregnating Olympias.<sup>119</sup> Valens, a second century Hellenistic astrologer, apparently gives the date of his own conception which would imply that the conception date had import.<sup>120</sup> Whilst conception astrology cannot be further explored here, it would bear closer examination.<sup>121</sup>

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<sup>115</sup> See Schmidt AJA.

<sup>116</sup> Greenfield, J., and M. Sokoloff, 'Astrological and Related Omen Texts in Jewish Palestinian Aramaic', *Journal of Near Eastern Studies*, Vol. 48, No.3 (Jul.1989) pp.261-214 [hereinafter Greenfield and Sokoloff] citing J. Gruenwald, 'Further Jewish Physiognomic and Chiromantic Fragments', *Tarbiz* 40 (1970-71) 301-19 – the text of which is in Hebrew and therefore inaccessible to me.

<sup>117</sup> See Schmidt AJE p.2, and Tools of the Trade later in this chapter

<sup>118</sup> See Schmidt AJA, and see also Greenfield and Sokoloff and J. Allegro, 'An Astrological Cryptic Document from Qumran', *JSS* 9 (1964) 291-94 cited in Greenfield and Sokoloff which has not yet been possible to obtain.

<sup>119</sup> *Romance* p.38-41.

<sup>120</sup> See Riley, Mark, *A Survey of Vettius Valens*, California State University, Sacramento (source unknown) p1. Source unstated so the reference cannot be confirmed.

<sup>121</sup> It may link into a possible early Jewish practice referred to in Ekeziel considered in chapter 3 hereof

Astrological theory mushroomed in Roman times and is in part preserved in poems and treatises, portions of which are earlier but which can only be accessed through later Arabic and Indian texts rather than actual horoscopic readings of the time.<sup>122</sup> The earliest extant Egyptian Hellenistic horoscope dates to 38 BCE but this cannot be taken to indicate that Graeco-Egyptian horoscopic astrology itself is not earlier as lack of evidence does not rule out previous practice.<sup>123</sup>

In early astrological works, stars as well as planets are concatenated with gods and stones. An ‘aberrant’, turn of the millennium work by the Stoic Manilius may incorporate pre-Hellenistic Egyptian material and it is Manilius who gives us a link between a star and stones and a potential remnant of an esoteric rite:<sup>124</sup>

From Cassiope come the gifts ... which gleam in the temples ... where ... the fires of gems flash forth light out of shadow... from Cassiope... precious stones have been spread over head, neck and hands.<sup>125</sup>

Valens, a resident of Alexandria, journeyed through Egypt and studied with living teachers of the old traditions, being one of the main sources for the tract attributed to Nechepso and Petosiris.<sup>126</sup> Adjuring his readers to secrecy as the material is part of the mysteries, he implies that his work is for esoteric purposes rather than public consumption. Valen’s teaching is claimed to be transmitted down a line of succession beginning with Hermes to adepts who separate themselves from the uninitiated and keep the knowledge secret, a common magical stricture:

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<sup>122</sup> Neugebauer and Parker p.204 and see Liber Hermetis.

<sup>123</sup> Neugebauer and Parker p.217

<sup>124</sup> See Schmidt Hellenistic Astrology.

<sup>125</sup> Manilius, *Astronomica* 504-525, G.P. Goold (ed and trans), (Loeb Classical library, Harvard University Press 1997) [hereinafter Manilius] p.343. For the adjuration to secrecy see 263.19-24 and 251.18-23

<sup>126</sup> Hand p.8. See the discussion in Evans p.2 with regard to dating and historical validity of this work and see Bouche Leclercq, Bibliography.

I adjure them by the sacred circle of the sun, by the varied paths of the moon, by the powers of the five other stars, and by the circle of the twelve signs to keep these matters secret, never to share them with the ignorant or the uninitiated, and to remember and to honor the one who inducted them into this art.<sup>127</sup>

This parallels much earlier Egyptian adjurations such as that in the Book of the Dead: ‘this is a great secret. Let no one see it... He who knows and guards the secret will continue to live’.<sup>128</sup>

It is Valens who notes concatenations of metals, stones and colours with planets, a connection that can be hypothesised to be taken from an ancient esoteric tradition reaching back to Egyptian and possibly Mesopotamian practices.<sup>129</sup> Valens also records ‘perpetual tables’ used by ‘Egyptian men of old’ far more accurate than demotic tables available to him and it appears such tables were still in use in 81 CE, which would suggest that astronomical observations and calculations could have been made in Egypt prior to Hellenisation.<sup>130</sup> Whilst Jones asserts that no extant astronomical papyri predating the Alexandrian conquest have been yet identified, specifically astronomical and cosmological building orientations are now being recognised, as is astronomical symbolism in ancient texts and iconography.<sup>131</sup> The

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<sup>127</sup> Valens Book I p.1-7. But see Tester p.49 who warns against reading this as an indication of Egyptian astrology. See Riffard for the common stricture of secrecy.

<sup>128</sup> Spell 162, Jacq p.45

<sup>129</sup> Valens Book I p.1-7

<sup>130</sup> Cited in Neugebauer and Parker p.236, and see Jones.

<sup>131</sup> Jones p.301 and see Helaine Selin (ed), *Astronomy Across Cultures* (Dordrecht: Kluwer Academic Publishers) [hereinafter Selin], Donald V. Etz, ‘A New Look at the Constellation Figures in the Celestial Diagram’, *Journal of the American Research Centre* 1997 p.143-161 [hereinafter Etz], Mosalem Shaltout and Juan Antonio Belmonte, ‘On the Orientation of Ancient Egyptian Temples (1) Upper Egypt and Lower Nubia’, *Journal for the History of Astronomy*, No.36 pt. 3, 2005 pp.273-298, Jose Lull, ‘A Firmament above Thebes, uncovering the Constellations of the Ancient Egyptians’, *Journal for the History of Astronomy* xxxviii 2006 p.373-392, Gregg DeYoung, ‘Astronomy in Ancient Egypt’ pp.475-505 in Selin, J.D. Degreef, ‘A Predynastic Egyptian Star clock: Three Archaic Egyptian constellations used as seasonal markers? on <http://www.catchpenny.org/thoth/3arch.htm> consulted 1.1.2007, R.O. Faulkener, ‘The King and the Star-Religion in the Pyramid Texts’, *Journal of Near*

rising of a particular pole star and placement of certain planetary gods, for instance, as in the tomb of Seti I, indicates a specific timing but, at this stage, it is impossible to surmise whether specifically astrological conclusions were drawn.<sup>132</sup>

The apparent lack of Egyptian astrological source material may be due to astrological works not being recognised as such.<sup>133</sup> To an, admittedly subjective, modern astrologer's eye the following undated demotic text, although somewhat garbled, could be horoscopic and predictive:

From 53 years and 9 months on Hermes took the period... then to Helios 19 months, which would be 57 years 8 months. In this period assigned to Helios, that is to 19 months, devote yourself to what you seek. After this he assigned to Ares 15 months... this is a hostile period. Then to Selene 25 months... they are good. Then to Zeus 12 months... they are good. Then to Kronos 30 months... they are bad for the body, within them also are dangerous points.<sup>134</sup>

The translator makes the comment that it appears to be a fragment from an astrological work about the influence of the planets upon periods of life but does not identify it as potentially relevant to a personal chart reading.

In claiming distant Egyptian and Mesopotamian roots, Hellenistic astrology fulfils a criterion for an esoteric practice.<sup>135</sup> These claims carry forward into present day astrology, although the adjuration to secrecy and the passing on of tradition in

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*Eastern Studies*, Vol.25, No.3 (Jul. 1966) pp.153-161, Georges Daressy, 'L'Egypt Celeste', BIFAO Vol.12 (1916) pp.1-34, For astrological identification of previously unrecognised artefacts see Clark Hopkins 'Astrological Interpretations of some Phoenician Bowls', *Journal of Near Eastern Studies*, Vol.24, No.1/2 (Jan-April 1965) pp.28-36.

<sup>132</sup> Notwithstanding, astronomical imagery is often described by authorities as merely 'deities', see for example Reeves, Nicholas and Richard H. Wilkinson, *The Complete Valley of the Kings: Tombs and Treasures of Egypt's Great Pharaohs*, (London: BCA, 1996) p.138 where the ceiling of Seti I's tomb is labelled 'astronomical texts in the upper half with deities below' but see Etz p.143 who identifies this ceiling as the earliest known Egyptian representation of the five visible planets.

<sup>133</sup> See Jones.

<sup>134</sup> *Demotic Papyri* PGM IV 835-49, Betz p.54.

<sup>135</sup> See Riffard p.65-66.

direct succession - further criteria that applied at least in part to ancient astrology - do not.

Whilst an exact date for the practice of horoscopic astrology in Egypt and Greece cannot yet be securely established, in its fully developed form it is unlikely to have predated Alexander's birth but was certainly in place during the period when root material for the *Romance* was being formulated and, therefore, could retroject an authentic practice that may preserve ancient stone lore. The hypothesis will, therefore, be pursued that the stone horoscope could have been fact rather than fiction, although most probably was not employed by 'Nectanebo', whether the historical character or another astrologer, at Alexander's birth.

## The gods of the months and decans

As in Mesopotamia, the gods of Egypt were, for the most part, identified with individual stars or planets.<sup>136</sup> However, in Mesopotamia whilst the gods had influence over stars, in Egypt the gods *were* stars.<sup>137</sup> An affiliation between gods and solar months was firmly established by 1350 BCE.<sup>138</sup> The deities associated with the portion of the sky that rose with the sun, from which the twelve-sign zodiac would be established, watched over the world as demonstrated by a water-clock of Amenophis III, and Rammeside ‘star clocks’ a century later.<sup>139</sup> Sacred time was measured by the rising of the sun and the decans:

Your work will endure with the lord...

Its years are those of *akhet* [literally: sunrise]

Its months are those of the decan stars.<sup>140</sup>

The *Book of Hermes Trismegistus* opens with an account of decanate rulers that includes both colour and stones. In the third decan of Aries, Venus, for instance, is dressed in rose pink and wears emeralds – planetary correspondences that endure to the present day.<sup>141</sup> Herodotus indicates that knowledge of the decan tradition survived for a considerable time, and a demotic papyrus showing the planets in relation to the gods and the zodiac in relation to Egyptian months is dated to the third century BCE

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<sup>136</sup> See Bomhard, A.S. von, *The Egyptian Calendar, a work for eternity* (London: Periplus 1999) [hereinafter Bomhard] particularly chapter 3, Reiner Astral Magic, Lindsay p.366.

<sup>137</sup> Lindsay p.366 and Reiner Astral Magic. See however Erik Hornung, *Conceptions of God in Ancient Egypt: the One and the Many*, trans. John Baines [Ithaca: Cornell University Press, 1971] p.80-81 who takes the view that only a few important stars were designated as gods.

<sup>138</sup> See Evans, James, *The History and Practice of Ancient Astronomy* (Oxford: Oxford University Press, 1998) [hereinafter Evans History] p.39 ff. For the Mesopotamian zodiac see Lindsay, for the Egyptian connection see Charlotte R. Long, ‘The Gods of the Months in Ancient Art’, *American Journal of Archaeology* 93 (1989) pp.586-595 [hereinafter Long]. The debate with regard to the origins of the zodiac cannot be pursued here.

<sup>139</sup> See Bomhard chapter 2.

<sup>140</sup> Assman, Jan, *The Mind of Egypt*, trans. Andrew Jenkins (Cambridge, Mass: Harvard University Press 2002) [hereinafter Assman] p.61 and, citing P. Monter: “Le rituel de la foundation des temples Egyptiens” in *Kemi* 17 (1964), p.79

<sup>141</sup> Liber Hermetis, p.1.

and a coffin interior to the first century.<sup>142</sup> Earlier charting of the sun's progression through the constellations is still clearly visible, accompanied by what would become zodiac imagery on ceilings of Theban tombs reopened by archaeologists.<sup>143</sup>

Without implying linear progression, the association between gods and solar months was reiterated in Ptolemaic times, possibly incorporating Greek festivals, with the gods of the month processing around the ceiling of Edfu Temple built between 170 and 163 BCE. The concatenation was recorded in amended form by Manilius as a pairing of a 'tutelary deity' with each sign, a pairing that had nothing to do with planetary rulers.<sup>144</sup> So, for example, the god Neptune – unknown to the Egyptians - is given dominion by Manilius over Pisces although the planet Neptune – invisible to the naked eye and unknown in antiquity - would not become the astrological co-ruler of Pisces for almost two millennia. On certain artefacts the god Mercury, who celebrated his festival in May, was linked to the month of May and to the sign of Gemini, which it, as a planet, ruled. Similarly, Ptolemy attributes to 'the Chaldeans' a system of 'lords of the triplicities' in which a planet is designated as a ruler of signs sharing the same element, and also the notion of rulership over 'terms', a sub-division of the zodiac circle in the same way that the gods of the decans ruled portions of the sky and, later, the zodiac, which may well explain how stones attributed to planetary gods became attached to zodiac signs.<sup>145</sup>

The Hellenistic god-month pairing may have a separate Greek root, or one that developed out of a common source, Plato having suggested circa 400 BCE that

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<sup>142</sup> Neugebauer and Parker p.217.

<sup>143</sup> Rawlinson, George, trans, *History of Herodotus* (London: John Murray, 1862) 4 vols. Vol.II Chapter 4, p.4. (hereinafter Herodotus). The constellations are clearly visible on the ceiling of the tombs of Nacht and Ramses II from personal observation 24.12.2007.

<sup>144</sup> Manilius II: 433-454

<sup>145</sup> See Rochberg-Halton p.125, citing Ptolemy *Tetrabiblos* 1:2. She takes the view out that, notwithstanding, this does not imply a Mesopotamian origin for terms. See also Reiner *Astral Magic*.

each month a festival should be held in honour of one of the twelve gods who ruled the twelve tribes, but association of the months with the Olympic pantheon was not adopted.<sup>146</sup> There is a cross-cultural similarity here with the Breastplate of the High Priest in which each stone was connected with a tribe.

By the first century BCE a calendar frieze catalogued the Greek festival year interspersed with signs of the zodiac. A third century BCE mosaic from Spain depicts gods of the months riding on signs of the zodiac with the seasons in the central space, and an 'altar' from the time of Hadrian shows gods of the months around the rim of a circular vessel with zodiac signs on the drum beneath.<sup>147</sup> Stones could have been placed or thrown into the bowl or onto the mosaic, as a divinatory tool or horoscopic layout.<sup>148</sup> That such a supposition has not been made may be due to ignorance of the possibility rather than consideration and rejection of the hypothesis.

The gods of the months confirm a deity-sign-or-constellation concatenation and, if a similar association can be established between gods and stones, this could support a contention that the stones in the *Romance* and PGM CX correspond with established planetary deity-stone attributions.

The gods of the solar months were different to gods of the decans that appear on extant horoscopic boards, coffin lids and astronomical ceilings.<sup>149</sup> These decanal gods are deemed to be an Egyptian contribution to Hellenistic astrology, each ruling a portion of a sign and calculated on a fixed point according to the rising constellation.<sup>150</sup> However, decans are not merely abstract points in the sky. They are,

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<sup>146</sup> See Long p.592. Long cites Laws 828 with no further attribution but see Plato Complete Works Bk VIII p.1491. Plato distinguishes between heavenly and underworld gods such as Pluto who belongs to the twelfth month.

<sup>147</sup> See Long p.592

<sup>148</sup> See Tools of the Trade and the mantic arts below.

<sup>149</sup> See, for example, Neugebauer and Parker p.9, 11, 13, 15, 43, 105ff.

<sup>150</sup> See Lindsay, p.309ff and Liber Hermetis.

as with all gods of Egypt, divine beings: ‘inherent in ancient Egyptian thinking was the belief that deities were manifest... The rising of a decan in the sight of the hour-priest is thus an epiphany in which the decanal deity manifestly participates’.<sup>151</sup>

Dividing the sky into thirty-six portions, the gods of the decans were each allotted ten degrees of the ecliptic, or zodiac circle, and were later incorporated through works attributed to Nechepso, Hermes Trismegistos and Hephaestion of Thebes into Hellenistic astronomy and hermetic astrology.<sup>152</sup> Decans also form part of the amuletic tradition and stones engraved with the god of the decan under which a person was born were worn to cure or ward off ailments connected to that part of the zodiac, a practice that may underlie the zodiac-stone concatenation.<sup>153</sup>

The question next has to be asked as to whether there is any additional material suggestive of use of a stone horoscope or an attribution of specific stones to gods, planets or signs and, if so, whether there is consensus across sources as to these planetary markers or whether choice of stones was random.

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<sup>151</sup> Locher, Kurt, ‘The Decans of Ancient Egypt: Timekeepers for Worship, or Worshipped Beyond Time’, pp.429-434 in Selin [hereinafter Locher].

<sup>152</sup> See *Liber Hermetis* in which minimal attributions are made. According to Bouche Leclercq Chapter 10 each decan had its own stone.

<sup>153</sup> See Lindsay. An early dynastic ceiling showing the decanate gods and planets was inset with lapis lazuli and turquoise, suggesting that there may have been a connection between the decans, gods and stones, see Neugebauer and Parker p.12. See also the introduction to *Alfonso Lapidary* for continuity of tradition.

## Sky and stones in the Hellenistic world and beyond

Stone and metal concatenation with the luminaries and the planets is an ancient one, ‘poets sang of the golden Sun or the silvery Moon or spoke of Mars’ iron long before astrological chemistry assigned each metal to a specific planet’ and, according to the Book of Enoch, the Watchers, a race of fallen angels, made known to man the metals of the earth and the art of working them, introducing them to both stones and astrology.<sup>154</sup>

Identification of stones in ancient texts is problematic, the nomenclature being misleading, but in various translations and recensions of the *Romance* stones differ only slightly:

<b>Planet</b>	<b>Stoneman<sup>155</sup></b>	<b>Dowden<sup>156</sup></b>	<b>Pingree<sup>157</sup></b>
Sun	crystal	crystal	crystal
Moon	diamond	adamant	diamond
Mars	hematite	hematite	red iron-ore [hematite]
Mercury	emerald	smargados [emerald]	emerald
Jupiter	air-stone	air-stone	(untranslated)
Venus	sapphire	lapis lazuli	sapphire
Saturn	orphite	serpentine	serpentine
Ascendant	white marble	white marble	(not given)

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<sup>154</sup> Bouche Leclercq chapter 10 and see Anon: ‘Zosimos of Panopolis and the Book of Enoch’ on <http://soc.world-journal.net/hermetica/bookofenoch.html> consulted 15.8.2007 for the Enochian reference and Garth Fowden, *The Egyptian Hermes: A historical approach to the late pagan mind* (New Jersey: Princetown University Press, 1986) [hereinafter Fowden] p.120 ff for details of Zosimos of Panopolis.

<sup>155</sup> Stoneman p.38

<sup>156</sup> Dowden, Ken, ‘Pseudo-Callisthenes, The Alexander Romance’ in B.P. Reardon (ed), *Collected ancient Greek novels* (Berkeley 1989) p.657 cited in Evans.

<sup>157</sup> Pingree p.256

‘Sapphire’ in ancient texts can relate to any blue stone but particularly lapis lazuli and the two are often conflated.<sup>158</sup> Adamant, clear quartz, is the most likely stone for the ‘diamond’ of Stoneman and Pingree as the Egyptians did not know diamond or true sapphire.<sup>159</sup> Smargados, often translated as emerald, was a generic name referring to various pronounced green stones, including local Egyptian quartzes from which amulets were formed which, to the naked eye, resemble opaque, uncut emerald - harder and difficult to engrave.<sup>160</sup> Sapphire or lapis lazuli to Venus, hematite (iron-ore) to Mars and ‘emerald’ to Mercury are all ancient attributions arising from Mesopotamian stone lore, with sapphire, lapis and hematite carrying forward into the present day.<sup>161</sup>

The *Romance* is not the only Hellenistic source concatenating stones with the horoscope. In a Graeco-Egyptian papyrus dated to the second or third century we are told that:

A voice comes to you in conversation. Lay out the stars on the board in their natural order, with the exception of the sun and the moon. Make the sun gold, the moon silver, Kronos [Saturn] of obsidian, Ares [Mars] of yellow-green

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<sup>158</sup> Lucas is of the opinion that the sapphire mentioned in Pliny is almost certainly lapis lazuli, see p.399.

<sup>159</sup> Lucas p.386

<sup>160</sup> For the difficulty of identifying stones in classical authors see the introduction to Pliny. See also Jorge Luis Borges, ‘The Lapis Lazuli of the ancient world’, reply to Edward H. Schafter ‘Up from Ultraism’ (August 13, 1970) in *The New York Review of Books* Vol.15, No.8, November 5 1970 on <http://www.nybooks.com/articles/10780> consulted 2.4.2005 and editor’s note in Henry Cornelius Agrippa, *Three Books of Occult Philosophy*, editor Donald Tyson (St Paul: Llewellyn Publications, 2004) p.59 [hereinafter Agrippa]. For a discussion on Smargados see Theophrastus note 23 p.97. Caley states that hard green quartz was used for Greek amulets. See Lucas p.189 for local Egyptian beryl and the unlikelihood of anything but inferior quality emerald (a form of beryl) being obtained from the mines. The use of aventurine for Egyptian statues and amulets is from personal observation and from Lucas, as is the use of clear quartz and the similarity between opaque, uncut inferior emerald and Aventurine (green feldspar).

<sup>161</sup> See references in the introduction to this dissertation.

onyx, Aphrodite [Venus] of lapis-lazuli streaked with gold, Hermes [Mercury] of turquoise, make Zeus [Jupiter] of a [dark blue] stone...<sup>162</sup>

Apart from lapis lazuli to Venus, the attributions do not concur with the *Romance*, although ‘reddish onyx’ could be hematite, but they are suggestive of the use of stones to represent planets. Two of the colours, red for Mars and lapis blue for Venus, concur with Mesopotamian attributions and one, red, with Valens.

According to Kotansky, PGM CX breaks off at: ‘but the horoscope...’ but Packman, who included additional fragments, ends with: ‘and the horoscope, in accordance with (nature?)... let it lie...’ opening the way for alternative interpretations as to its function.<sup>163</sup> It could be postulated to be instructions for laying out stones on a board to represent planets as in the *Romance*. Kotansky opines that this incomplete papyrus contains instructions for a special kind of astrological divination in which ‘the client participates in an auditory revelation of a god’. It could, however, as Evans postulates, be the astrologer who is guided by a divine voice in a tropological or anagogic experience that could be facilitated by the use of stones as potent metaphors for the planets and the divine forces that lay behind or within them depending on how deeply the astrologer and his client penetrated the experience.<sup>164</sup> As Evans surmises:

‘An astrological consultation ... must have been a psychologically powerful experience. One entered a dark chamber of the temple, illuminated by a flickering lamp... In the small circle of light lay the astrologer’s board... The priest was austere and impressive with the golden seven-rayed star of Serapis

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<sup>162</sup> *Demotic Papyri* PGM CX 1-12, Betz p.312. Packman, see note 161, translates ‘reddish onyx’ for Mars and ‘a whitish stone’ for Jupiter.

<sup>163</sup> Packman, Zola M. ‘Instructions for the use of planet markers on a horoscope board’ *Zeitschrift für Papyrologie und Epigraphik*, lxxiv (1988) 85-89 cited in Evans, ‘p.4. It has not been possible to obtain the original article but Evans confirmed the translation in a personal email.

<sup>164</sup> See Voss p.4 and Chapter 4 of this dissertation

on his diadem. He lay aside the sheaf of papyrus planetary tables he has previously consulted, retaining only the sheet on which he had summarized the results of his computations. Then he took out a small amulet casket... Opening it he poured out the coloured stones, engraved with magical signs and the names and images of the planetary gods.<sup>165</sup>

If Evans is correct in his judgement, such an experience would be profoundly mystical and anagogic and PCM CX could be the instructions for a ritual setting out of such a horoscope.<sup>166</sup> Packman renders the second sentence more literally than Kotansky: ‘Let the stars be set upon the board where (they belong) by nature’ and goes on to suggest that planets and stars are to be arranged in their acknowledged order in their sphere of origin.<sup>167</sup> Evans surmises that ‘natural order’ refers to the connection between planet, or luminary, and stone. However, the suggestion could be made by an astrologer looking at the same text that the stars – although planets and luminaries are more appropriate terms – be set out according to their position in the heavens at the time of birth. A supposition supported by use of planetary glyphs for the sun and moon in the papyrus. As Abram has pointed out, ancient scripts use glyphs to remind the reader of the inherence of a ‘more than human field of meaning’ and the wider associations of the ideogram rather than merely the visible entity.<sup>168</sup>

A link may be postulated between PCM CX and the work of the Egyptian Petosiris, who was also instructed in astrology by a voice from the heavens, and PCM CX could incorporate a lost and, as yet, unidentified fragment of Petosiris.<sup>169</sup> If this

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<sup>165</sup> Evans p.37. Evans points out that the *Romance* specifically mentions a small circle of lights.

<sup>166</sup> See Evans.

<sup>167</sup> Confirmed by Evans in personal email.

<sup>168</sup> Abram, David, *The Spell of the Sensuous: perception and language in a more-than-human world* (New York: Vintage Books 1997) [hereinafter Abram] pp.9-10

<sup>169</sup> See Evans p.4 who cites Ernestius Riess, ‘Nechepsoodnis et Petosiridis fragmenta magica’, *Philologus*, Supplement 6 (1892) 325-94. It has not been possible to obtain this reference and the suggestion that it could be linked is my own.

were to be the case, then the practice could be contemporaneous with the earliest attestation of the *Romance*.

Colour played an important part in medico-astro-gemmological tradition as planets and signs had colour correspondences attributed to them that extended to stones and in Greece Plato assigned colours to the celestial spheres.<sup>170</sup> In Egypt green and blue stones signified resurrection and rebirth, hematite strength and support, while carnelian and jasper were connected with energy, blood, strength and power, and aquamarine was used in cultic images carried in jars - in present-day astrology aquamarine is associated with the sign of Aquarius, the water-carrier.<sup>171</sup> Egyptian colours forming part of an elaborate magical and amuletic framework were different to modern perception.<sup>172</sup> Orange, yellow and red were described by one word, linked to fire, and red was associated with chaos and evil. Black and green, linked to growth and regeneration were positive and powerful, whilst blue and turquoise were the heavenly colours particularly associated with the sky and the gods.<sup>173</sup> One of the earliest concatenations in Hellenistic astrology occurs in Valens, who also sets out the reasons for planetary colour attributions by ‘the ancients’:

[They made] the star of Kronos [Saturn] dark since it is a sign of time (for the god is slow)... the star of Zeus [Jupiter] bright, for, it is a bestower of life and good things. The star of Ares [Mars], tawny-orange, for the god is fiery and

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<sup>170</sup> See Budge *Amulets* pp.416-420 and 423-426, Plato, *Republic* Bk.10 cited in Bouche Leclercq. Bouche Leclercq also cites Ptolemy and ‘coloured rays’ but without attribution. The reference appears to be to *Tetrabiblos* Book II.9 p.193, trans. F.E. Robbins (Cambridge, Mass: Harvard University Press 1998, Loeb edition)

<sup>171</sup> See Ikram, Salima, *The Mummy in Ancient Egypt Equipping the dead for eternity*, (London: Thames and Hudson, 1998) [hereinafter Ikram] p.137. For reference to aquamarine and its use for cult objects such as water jars see Helen Whitehouse, ‘A Remarkable Gem in Paris’ pp. 303-313 in Elizabeth Goring, Nicholas Reeves and John Ruffle (eds), *Chief of Seers: Egyptian Studies in memory of Cyril Aldred* (London: Kegan Paul International, 1997)

<sup>172</sup> See Ikram

<sup>173</sup> Pinch *Magic* p.81. For Mesopotamian colour correspondences see R. Campbell Thompson, *A Dictionary of Assyrian Chemistry and Geology* (Oxford: Clarendon Press, 1936) [hereinafter Campbell Thompson] p.xxxvii ff.

sharp and effective... [and] the depriver of good things and of life. The Sun, most transparent, through the pure and eternal light in him. Aphrodite [Venus], multi-coloured in body since she has sway over desire ... she is allotted the circle after the middle defining zone of the Sun, and taking up the effluents of the stars above her and under her, she brings the diverse desires and activities to completion. And they made the star of Hermes [Mercury] pale-yellow resembling bile (for it has mastery over speech and bitterness)<sup>174</sup>

The action of Venus in ‘taking up the effluents’ of the stars may underlie Valens’ attribution of this planet to ‘precious stones’, reflecting astrological correspondence.<sup>175</sup> Valen’s attribution of minerals, colours and stones, although minimal, occurs at the start of his treatise, which would suggest he gave it import:<sup>176</sup>

<b>Planet</b>	<b>Stone</b>	<b>Metal</b>	<b>Colour</b>
Sun	-	gold	yellow
Moon	-	silver	leek-green
Saturn	‘authority over stones’	lead	--
Zeus	-	tin	grey/white
Mars	-	iron	red
Venus	emeralds and precious stones	-	white
Mercury	-	copper	-

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<sup>174</sup> Valens p.71-72. The Moon has no colour attribution in this portion of Valens. Marilyn at Pronoia kindly referred me to Pingree’s reference to Teukros as the earliest Greek source for metals and planets in Appendix II *Albumasaris de revolutionibus nativatum* (no further details available). However, it has not yet been possible to obtain this reference.

<sup>175</sup> See the section on correspondence later in this dissertation.

<sup>176</sup> Valens p.1-7

The ‘authority over stones’ attributed to Saturn by Valens connects directly into Mesopotamian stone lore discussed in Chapter 4 and to one of the Egyptian glyphs for that planet, a block of stone.<sup>177</sup>

A translation of a mid-second century Indo-Hellenistic text contains several ‘historical’ attributions of colours, stones and minerals, Libra, for instance, is associated with touchstones, gold and jewels; Scorpio with stones generally; Capricorn with minerals, lead and iron; the Sun with gold and copper; the Moon with jewels and pearls and Venus with ‘heaps of jewels’ and diamonds. The author, Sphujidhvaja, points out that each object, whilst pertaining to a sign also relates to a planet.<sup>178</sup> He allots colours to ‘the *horas*’ and there are many references to various minerals, which could indicate that it is founded upon an organised system.<sup>179</sup> It could also, incorporate native Indian elements but it is beyond the scope of this dissertation to pursue this further.

The most frequently cited ancient source for zodiac and stone attributions, after the Breastplate, is the Roman geographer, Pliny (23-79 CE). However, whilst Pliny provides evidence in his fulminations against the Magi and their ‘abominable falsehoods’ that they were using stones for magical, medical and astrological purposes, he gives no direct attributions of stones to signs but, notwithstanding, draws on lore from Sotacus, a Greek writer (third century BCE).<sup>180</sup> Pliny’s most intriguing

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<sup>177</sup> The attribution of emerald to Venus, however, repeated by Lilly affiliates directly to a modern birthstone. It is the stone for Taurus, ruled by Venus, although Budge Amulets gives emerald to Venus’ other sign, Libra, which may be a residue of an early concatenation, see the official American Jewellers list of Birthstones on <http://www.americangemsociety.org/birthstones.htm>, and see Hall Zodiac. For the Saturn symbol see George R. Hughes, ‘A Demotic Astrological Text’, *Journal of Near Eastern Studies*, Vol.110, No.4, pp256-264, p.260

<sup>178</sup> Pingree p.21

<sup>179</sup> Semi-precious stones are frequently minerals in their raw state, hematite being iron ore for instance, and galena lead. No definition is given of a *hora*.

<sup>180</sup> See Pliny 37 p.205. See also Martyn Smith, ‘Elusive Stones’ pp.105-117 [hereinafter Smith] p.113 in Benjamin Acosta-Hughes, Elizabeth Kosmetatou, and Manuel Baumbach (editors), *Labour in Papyrus Leaves*, (Washington, D.C. Centre for Hellenistic Studies, Trustees for Harvard University,

reference is to Zachalias of Babylon, who wrote several volumes on stones, apparently attributing man's destiny to the influence of precious stones.<sup>181</sup> Pliny, however, gives no further details. This could relate to stone lore of Mesopotamia or Egyptian decan and stone attribution, or indeed an early Greek lapidary said to be based on Mesopotamian lapidaries.<sup>182</sup> Few references can be interpreted as directly 'astrological', Pliny speaks of fluorite dedicated to Jupiter, protests against the Magi's insistence that amethyst engraved with the sun and moon is a protection against spells, as is a smargados engraved with an eagle or scarab beetle (symbols for Scorpio); amazonite is held in high regard by the Assyrian god Baal and much favoured in religious observances; and panchrus (unidentifiable) appears in a poem dedicated to Venus.<sup>183</sup> *Solis gemma* appears to be moonstone, and Pliny opines that selenite contains a likeness of the moon that waxes and wanes. Both of these minerals are, in modern times, viewed as belonging to the moon, although moonstone can occur in a yellow, sun-like form.<sup>184</sup> *Veneris crinis* or 'lock of Venus' is unidentifiable.<sup>185</sup> Pliny discourses about stones illustrating *sympathia* and *antipathia*, concepts allied to correspondence.<sup>186</sup> In view of lack of direct astrological correspondences, however, Pliny cannot be the source of the zodiac-stone tradition, or the demotic papyrus or *Romance* - no matter how late it was penned - but he does indicate continuity of tradition from earlier writers.

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distributed by Harvard University Press, Cambridge, Mass, 2004) [hereinafter Acosta-Hughes] for a discussion as to Pliny's sources and ancient knowledge.

<sup>181</sup> Pliny 37, p.301. Zachalias work is now lost. Zachalias was probably a Jew living in Assyria sometime after the Greek conquest, see John E. Gilmore, 'Babylonia under the Greeks and Parthians', *English Historical Review*, Vol. 7, No.25, 1892 p.4 and see John Pollini, 'The Tazza Farnee: Augusto Imperatore "Redeunt Saturnia Regna!"', *American Journal of Archaeology*, Vol. 96, No. 2 (April, 1992) pp.283-300.

<sup>182</sup> See Annus p.164. This area would repay further study if appropriate translations could be obtained.

<sup>183</sup> Pliny 37 p.177, 265, 295, 309. The imagery may indicate astrological timing as yet unrecognised.

<sup>184</sup> Pliny 37 p.311 and see Lilly p.82 for an attribution of selenite to the moon.

<sup>185</sup> Pliny 37 p.315.

<sup>186</sup> Correspondence is discussed in chapter 4 hereof. See Pliny 37 p.207 and translator's note re *Astronomia IV.926*.

Of Budge's unattributed list of astrological stones only the moon, Venus and Mars correspond to the *Romance*, and the sun, Saturn and Mars to the demotic papyrus. Without Budge's source, it is impossible to consider the implications. In an early Greek lapidary seven powerful zodiac stones are used as phylacteries for protection:

<b>Sign</b>	<b>Stone</b>
Aries	hematite
Taurus	mede [unidentifiable]
Cancer	aphroselinite [possibly moonstone]
Leo	chrysolith [probably peridot]
Virgo	'Arabic' ['like an ivory fossil', possibly magnestite]
Sagittarius	céraunie [unidentifiable]
Capricorn	ostracite [possibly onyx] <sup>187</sup>

Aries' correspondence with hematite, an ancient Mars-stone attribution as the planet rules Aries, correlates with the Mars stone in the *Romance* and PGM CX. The stones for the Seven Circles (celestial orbs) are given as:

Sun	heliotrope
Moon	crysolith [possibly peridot]
Mercury	hematite
Venus	'Egyptilla' [possibly lapis lazuli]
Mars	sard [deep blood-red quartz]
Jupiter	'herbeuse' ('grassy')
Saturn	agate

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<sup>187</sup> *Lapidaries Grecs*: 'Damigeron-Evax' p. 232, translation by Hayley Maund amended by my own suggestions.

A mid to late third century BCE papyrus may preserve remnants of esoteric stone lore with cosmic connotations. Esoteric knowledge was often concealed within exoteric forms and, as with images, was intended to magically invoke an imaginal archetype.<sup>188</sup> This *Lithika* of ancient gems can be read as cosmological poetry in miniature, signifying purposeful design in the cosmos.<sup>189</sup> Illustrating the complexity of Graeco-Egyptian thought, it demonstrates esoteric, ideological and political narratives allegorically interwoven into what is, at face value, a collection of interesting stones.<sup>190</sup> One cabochon resembles an astronomer's globe and 'represented the Pleiades and Hyades'.<sup>191</sup> Kuttner takes the view that 'these old and alien historic stones imply that meanings are transportable through time and across cultures'.<sup>192</sup> Stones engage all the senses, sometimes substituting for contact with live flesh, and, in wearing a stone, the wearer takes on its specific associations, which can be argued to be an esoteric concept.<sup>193</sup> The epigrams parallel earlier works and draw on a prior source.<sup>194</sup> Hidden meanings abound. A gem featuring a carving of Neptune

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<sup>188</sup> The epigrams were found in 2001 and authorship, whilst disputed, is generally attributed to the Macedonian poet Posidippus of Pella who wrote poetry for the Ptolemies at Alexandria. See David Petrain, 'An introduction to Posidippus' in *Classics* an on-line journal, Center for Hellenic Studies [hereinafter Petrain] [http://www.chas.harvard.edu/publications.sec/classes.ssp/issue\\_Iposidippus/issue.html](http://www.chas.harvard.edu/publications.sec/classes.ssp/issue_Iposidippus/issue.html) consulted 09.03.2007. See also Smith p.107, and Kathryn Gutzwiller, 'Introduction' in Gutzwiller Posidippus pp.1-16 [hereinafter Gutzwiller Introduction] for dating and authorship. See also Dorothy J. Thompson, 'Posidippus, Poet of the Ptolemies' in Gutzwiller Posidippus, pp.269-283 p.281 for a discussion of Egyptian imagery within the epigrams. See Naydler *Temple*, Jeremy Naydler, *Ancient Egypt and Modern Esotericism*, (Oxford: Abzu Press, 2006), Brede W. Kristensen, *Life Out of Death*, trans. H.J. Franken and G.R.H. Wright (Louvain: Peters Press 1992) p.185 and West for concealment of esoteric meaning and invocation of imaginal archetypes.

<sup>189</sup> Gutzwiller Introduction p.14.

<sup>190</sup> Smith p.117 and see Peter Bing, 'The politics and poetics of Geography in the Milan Posidippus' pp.97-118 [hereinafter Bing] in Gutzwiller Posidippus p.123-124 for the ubiquitous cultural perception of the connection of Alexander to gems.<sup>190</sup> Petrain p.3. For its use as Ptolemaic propaganda see Bing p.122 and p.135, and Susan Stephens, 'Battle of the Books' p.248 in Gutzwiller Posidippus.

<sup>191</sup> See Kuttner p.151. A cabochon is a rounded stone without facets. No citation is given for the Pleiades reference.

<sup>192</sup> Kuttner, p.153.

<sup>193</sup> Kuttner p.143.

<sup>194</sup> Smith p.107 and Gail Hoffman, 'An Archaeologist's Perspective on the Milan Papyrus', in Acosta-Hughes, pp.302-308 [hereinafter Hoffman]. See Gutzwiller Introduction p.5 concerning the engraved amethyst belonging to Alexander's sister..

(Poseidon), for instance: ‘mythopoetically endorses all artists, for Poseidon’s hand, carving rocks with a trident, consummates the series of artists’ hands gouging gems with little chisels; this geography, divinely engraved, elegantly concatenates microcosm and macrocosm, epigrammatic with epic creation’.<sup>195</sup>

Whilst the epigrams have no direct relevance to the stone horoscope as such, they indicate the importance given to stones in that period, and their extensive use for amulets, and the like, which incorporated magical and, potentially, astrological correspondences - the term *lithika*, inscribed at the start of the papyrus, is used of magical works.<sup>196</sup> It is in the subtext and imagery of the epigrams themselves that astrological connections can be made as they evoke cosmological phenomena.<sup>197</sup> Although stones are found within earth and water, the poetry recalls the brilliance of the celestial sphere, and the ideological narratives associated therewith, and demonstrates how ‘deities shape our environment’.<sup>198</sup> The structure of the *Lithika* has been suggested to be associated with ‘the ability of humans to see larger meaning and design through natural and accidental signs’, which could be construed as divination.<sup>199</sup> Thus far, it has not been possible to find an academic suggestion that these epigrams pass on esoteric lore.<sup>200</sup> The hidden meaning behind an epigram can, however, become clearer when viewed through a Platonic metaphor, as with the following epigram:

Pegasus etched upon misty jasper – the artist’s  
hand and mind, working together, have caught it

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<sup>195</sup> Kuttner p.145

<sup>196</sup> Hoffman p.307

<sup>197</sup> Bing, p.120

<sup>198</sup> Gutzwiller, Kathryn, ‘Literariness of the Milan Papyrus’ pp. 287-319 [hereinafter Gutzwiller in Gutzwiller Posidippus p.302-303.

<sup>199</sup> Gutzwiller p.312.

<sup>200</sup> M.Lefkowitz, ‘From Diotima: Women and Gender in the Ancient World’ on [www.stoa.org](http://www.stoa.org), D. Schur, M. Smith, E. Kosmetation and B. Acosta-Hughes, all cited on Center for Hellenistic Studies [www.harvard.edu.org](http://www.harvard.edu.org)

superbly: Bellerophon has fallen to Cilicia's  
Aleian Plain, his colt has pranced off into the deep  
blue sky – and so he carved him, on this ethereal stone,  
free of the reins, shuddering still, still, at the bit.

14.II:33-8<sup>201</sup>

From the Platonic viewpoint, the 'winged steed' is the poetic and, therefore, superior soul who has attained the heavens.<sup>202</sup> Stoics, by contrast, regarded seals and amulets as being 'true impressions stamped on the soul'.<sup>203</sup> Mythic components of the ambiguous epigram could be conveying hidden astronomical information.<sup>204</sup> There are parallels here with Manilius' later description of a specific constellation rising:

You may well believe that under this constellation was born Bellerophon, who flew amid the stars and laid a road to heaven: the sky was a field over which he sped, whilst land and sea lay far beneath his feet, and his path was unmarked by footprints. By examples such as these are you to mark the rising figure of the Charioteer.<sup>205</sup>

The epigrams cannot be taken at face value as they serve a cosmogonic as well as political or philosophic function, and the poem may be transmitting ancient knowledge to invoke a magical meaning. 'To choose, embed, juxtapose a word, or an epigram, remake older metaphors', and this is gem magic.<sup>206</sup>

Posidippus is by no means the only poet to incorporate stone lore. *Kerygmes*, of unknown authorship, most probably dated to second century BCE Alexandria,

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<sup>201</sup> Nisetich translation in Gutzwiller p.20

<sup>202</sup> See Kuttner p.158. Space precludes a further discussion of the Platonic concept.

<sup>203</sup> See Kuttner note 68 p.158 for a further discussion of Stoic concepts.

<sup>204</sup> See Santillana, Giorgio de and Hertha von Dechend, *Hamlet's Mill* (London and Basingstoke: MacMillan, 1969) for a discussion on how myth conveys astronomical information through the centuries.

<sup>205</sup> Manilius 5, 95-119, p309

<sup>206</sup> Kuttner p.163

draws on an apocryphal Socratic text that relied on earlier Mesopotamian sources.<sup>207</sup> It attributes stones to months but is impossible to pursue further at this time.<sup>208</sup> Lists from both Mesopotamia and Hellenistic Egypt unite zodiac signs with gods and stones, the first stone book going back to the origins of cuneiform writing.<sup>209</sup> Harpocraton attributes to Nechepso stone and planet concatenations ‘according to their effluvia’.<sup>210</sup> In a ‘sacred book of Hermes Trismegistus’, thirty six prescriptions (relating to the decans) associated parts of the body with precious stones. One, the first decan of Aries, prevented headaches: ‘Engrave it... on a stone of Babylon, well-chosen, and after placing it upon the plant of Mars, enclose the whole in an iron ring and wear it’.<sup>211</sup> Here we have a concatenation, recognisable by any modern astrologer, of Mars, the ruling planet of Aries the sign that rules the head, with iron (hematite), the stone of Mars.<sup>212</sup> In an exemplification of sympathy at work, stars or planets were believed to make organs sick and remedial stones concatenated with those stars healed them.<sup>213</sup> Unfortunately, texts that are available are not always given in full. A ritual prayer to Marduk, for example, contains the lines:

Like alabaster let my light shine...

Like lapis-lazuli may my life be precious in the sight.

The translator states that there follow three short sections of ceremonies in which stones and gods are concatenated, but no detail is given.<sup>214</sup> These lists draw together

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<sup>207</sup> See Annus p.164

<sup>208</sup> *Lapidaries Grec.* My translator has been unable to translate the archaic academic French nomenclature.

<sup>209</sup> See Reiner and Weiner.

<sup>210</sup> See for instance Weiner and Postgate for Mesopotamia and Bouche Leclercq chapter 15 for Egypt and Harpocraton and Firmicus references.

<sup>211</sup> Bouche Leclercq cites *Anal Sacr.*, V.2 pp.284-290. This does not appear to be the same text as the *Liber Hermetis*.

<sup>212</sup> See Bills p.213ff and p.313ff

<sup>213</sup> See Bouche Leclercq chapter 15 and Reiner *Astral Magic*.

<sup>214</sup> King, Leonard W., *Babylonian Magic and Sorcery* (York Beach, ME: Weiser Books 2000) p.63 (first published 1896)

age-old magical practices, lapidarial compendiums, hemerological traditions and astrological timing, and ‘ritualistic restrictions’ that, whilst there is no consensus, point to an ancient tradition underlying attributions of stones to gods and planets.<sup>215</sup>

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<sup>215</sup> Zweilein-Diehl, Erika, ed., *Magische Amulette und andere Gemmen des Instituts für Altertumskunde der Universität zu Köln* would have been extremely useful as it contains a list of stone attributes ‘natural and supernatural’ but which could only be accessed via Brashaer’s review article that gave no details.

<sup>215</sup> Reiner *Astral Magic* p.130-131, Reiner *Astrology* p.592-3, and Reiner *Fortune Telling*.

## Tools of the trade

For ancient astrologers to practice their craft, tools would be required although there is comparatively little extant material.<sup>216</sup> At least one horoscope permanently incised into stone has been found and others may be as yet unidentified.<sup>217</sup> In Mesopotamia, planetary positions were permanently recorded on clay tablets and in Egypt three hundred plus sets of birth information were graffitied onto walls, doodled onto ostraca and scribbled on papyrus, hardly the most durable material. Most were recovered from rubbish dumps suggesting that these are astrologers' working notes rather than finished pieces of work for the client.<sup>218</sup> Actual charts could have been sketched on papyrus or scratched onto dusty ground or a tray of sand as a basis for a verbal discussion with the client that would leave little trace – present day chart readings are often verbal and face-to-face.

There is phenomenological evidence for such practice in the Near East. Although not contemporaneous, Al-Uqlidist, a tenth century Arabic mathematician, reported his dissatisfaction with use of a *takht*, sand-covered board, because not only did one's fingers get dirty and calculations blow away, but 'it is seen between the hands of the misbehaved who earn their living by astrology in the streets'.<sup>219</sup> Such practices are enduring.<sup>220</sup> Precursor 'casting fields' have been identified in Mesopotamia, a tool that could well have been used for popular practice of astrology in the streets of Egypt, Greece and Rome, leaving little trace.<sup>221</sup>

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<sup>216</sup> See Evans for a comprehensive survey

<sup>217</sup> Neugebauer, O., 'A Horoscope Gem' *American Journal of Archaeology*, Vol.73, No.3 (Jul. 1969) pp.361-362.

<sup>218</sup> See Jones.

<sup>219</sup> See Evans who cites A.S. Saidan (ed and trans.), *The Arithmetic of Al-Uqlidist* (Dordrecht and Boston, 1978), no page given.

<sup>220</sup> Personal observation shows that present day Egyptians still use a finger in dusty ground to illustrate a point.

<sup>221</sup> See Chapter 3 for precursor casting fields, and Evans for instances of graffitied circles in Rome and elsewhere.

One of the most compelling pieces of evidence for a chart being represented on a horoscope board as described in the *Romance* was the discovery of an ivory and gold astrologer's board from circa 170 CE identical to that described in the *Romance*. The board is Graeco-Egyptian with an outer ring with gods of the thirty six decans surrounding a zodiac band and the luminaries in the centre. If used to lay out a chart, recognisable planetary markers would have been required.<sup>222</sup>

A marble board found in Rome has two inner bands, and there are other similar ancient artefacts.<sup>223</sup> A painted and gilded glass plaque from Tanis contains an inner circular band surrounding an empty area, with a clockwise zodiac around which is an outer band with figures. This plaque appears to have been part of the contents of a private house. Petrie's dig description states:

Within ... are twelve compartments... These compartments contained the [zodiacal signs] ... laid on in gold foil... Aries is perfect, the ram running to the left... Next to that we may perhaps discern the horns and fore-part of Taurus... Except perhaps some of the legs of Cancer, nothing but unintelligible scraps of gilding remain until we reach Capricornus: there is here the goat to the left, with a dolphin's tale arching up into the sky... Aquarius is not intelligible.. and Pisces is entirely lost... Within these are two more circles of gilding... the central object of gold foil and paint is too much injured for any immediate understanding ...<sup>224</sup>

Petrie took the view that the heads in the outer band were the 'gods of the months', but Neugebauer disputed this view, first making the judgement that they may have

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<sup>222</sup> For a concise though non-scholarly precis of the decans see <http://www.tarotpassages.com/liber-t-c.htm> consulted 24.10.2004 and see also Locher and see Bombard p.50ff.

<sup>224</sup> Petrie, W.M. Flinders, *Tanis* Part 1, 1883-84 (London 1889) pp.48-49 cited in Neugebauer and Parker p.102-3. The bands would allow for synastric comparison.

represented planets and luminaries ‘in their houses or exaltations’ but then being uncertain as to exactly what was represented.<sup>225</sup> Nonetheless, the plaque bears a striking resemblance to the board in the *Romance*. A marble plaque, now lost, had an inner and outer circular band around a central area on which were busts of the sun and moon. The outer band was decorated with the signs of the zodiac and the inner band had twelve zodiac animals known from early Hellenistic works.<sup>226</sup>

If these boards are combined with the thousands of ‘magical gems’ with planetary gods and glyphs engraved upon them, it is possible to join Evans in picturing an ancient astrologer calling on planetary gods and ritually invoking properties of stones to assist the work of horoscopic divination.<sup>227</sup> The description of the board in the *Romance* could well in itself have set a precedent for use of such a board.<sup>228</sup>

Having established that an authentic basis for the casting of a stone horoscope potentially existed at the time the *Romance* was written, the question can now be raised as to whether there were any earlier artefacts or practices that correlate to zodiac boards and use of stones for divination and this is addressed in Chapter 3 but it is first necessary to place stones in a mantic context.

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<sup>225</sup> Neugebauer and Parker p.102-3.

<sup>226</sup> See Neugebauer and Parker.

<sup>227</sup> See Evans.

<sup>228</sup> Pliny refers to a board that, whilst it does not immediately suggest laying out a horoscope, nevertheless indirectly implies a connection between stones and planetary gods. A ‘gaming board’ was carried in procession with an unspecified ‘set of pieces’. The enormous board was made of two precious, unidentified, minerals and on it rested, *inter alia*, a large gold moon, three gold figures of Minerva (used interchangeably with Mercury), Mars and Venus, and, on top, a ‘sundial’ and pearl portrait of Pompey. Pliny 37 p.175-177. Artefacts such as this and one labelled ‘sundial’ showing the equinoctial points and solstices may in fact have been horoscopic boards but the boards would need re-examining with an expert eye.

## Chapter 2: The mantic arts

*'There are many and diverse methods of prophecy, O queen' ... 'One may interpret horoscopes, or signs, or dreams; one may utter oracles from the belly or prophesy from the fleece of a lamb, and there are casters of nativities...'*

*Nectanebo*<sup>229</sup>

The stone horoscope and the divinatory framework in which it is set can be postulated to have its roots in magical thinking. The above conversation, between 'Nectanebo' and Alexander's mother, illustrates the wide diversity of mantic arts in the Hellenistic world.<sup>230</sup> In Hellenistic theurgy, mystic knowledge of stones is used to 'open and close the powers, is conferred by the gods, and is realized in ecstasy coming from beyond the magician himself'.<sup>231</sup> This chapter will endeavour to establish a concatenation between stones, magic and divination in the ancient world.<sup>232</sup>

Divination took place within a 'sanctioned magico-religious framework', the foundation of magic being 'a latent potency in things... beyond the more obvious effect such entities exert in their normal intrasocial use'.<sup>233</sup> There was a belief that, as with the gods, stars could imbue ordinary substances and objects with supernatural power, and that stones inscribed with the name of a god would draw down the protection of that deity.<sup>234</sup> A demotic papyrus gives details of a rite whereby the signs

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<sup>229</sup> Stoneman p.37.

<sup>230</sup> See the epigram at the start of this section.

<sup>231</sup> Hull p.41 citing Iamblichus without attribution.

<sup>232</sup> Houtman, C., 'The Urim and Thummim: A New suggestion', *Vetus Testamentum*, Vol.40, Fase 2 (Apr. 1990) pp.229-232 [hereinafter Houtman]. Houtman cites H. Bachtold-Staubli (ed) *Handwörterbuch des deutschen Aberglaubens V*, (Berlin 1933) cols 576ff but it has not been possible to obtain this reference.

<sup>233</sup> Reiner Fortune-Telling p.30. Finkelstein ANE p.595.

<sup>234</sup> Reiner Astral Magic p.13, Winter p.50-51 and Kieckhefer p.13.

of the zodiac were inscribed with cinnabar (from which mercury is obtained) on twelve leaves of laurel which were then placed on the head to facilitate dream interpretation.<sup>235</sup>

Magic was an integral part of the ancient world, a Pharaoh of Egypt possessed, circa 3266 BCE, a book that 'hath effects upon the heart of the gods', and natural magic can be argued to be one of the foundations behind the use of stones with a horoscope.<sup>236</sup> Magic has been the source of a protracted academic debate that cannot be pursued here but as Gager points out:

The debate about magic is no recent development. What is recent is debate about its definition and even its very existence... We are trapped by language; the moment we speak of 'magic', we are forced into a particular tradition of ideology and scholarship where magic is not only different from other human activities, most notably religion, but also, depending on the particular stream within the tradition, either developed prior to it (Frazer) corruptly degenerated from it (Barb), or functionally separate from it (Malinoswki).<sup>237</sup>

Egypt afforded magic (*hike* or *heka*) a recognized and central place in human life and an integral part in religion as it was one of three creative and supportive powers that stood beside the sun god and accompanied him on his daily journey.<sup>238</sup> Amulets, imbued with *heka* and engraved with magical formulae, were in Egypt, Greece and Mesopotamia crafted from stones that were from earliest times perceived to have magical properties in their own right.<sup>239</sup> Lapidary texts begin 'the nature of the

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<sup>235</sup> See note 27, Waterfield p.15.

<sup>236</sup> See Hull p.27 and Kieckhefer p.13 for natural magic.

<sup>237</sup> Gager, John G., 'Review: A New Translation of Ancient Greek and Demotic Papyri Sometimes Called Magical', *The Journal of Religion* Vol.67, No.1 (Jan 1987), pp.80-86 p.80. For a discussion on the place of natural magic in the ancient world see Kieckhefer chapters 1 and 2.

<sup>238</sup> See Hornung p.208 for a discussion of magic preceding creation. See also Hall Correspondences for a discussion and references on *heka*.

<sup>239</sup> Reiner Astral Magic p.127ff. and see Kierckhefer p.13.

stone is....’ and LK A9, for example, states that a particular stone was to ‘assure that the god would be favourable to the man’.<sup>240</sup> According to Psellus, Teucer of Babylon gave figures for each decan which, if carved into a ring, would ‘avert terrible things’ but there is no indication as to whether it was carved into stones, or at an auspicious time.<sup>241</sup>

Such correspondences can be postulated to be extremely ancient indeed and, as will be demonstrated, were reinforced by impregnating objects by magical means with energy from stars and gods at astrologically propitious times.<sup>242</sup>

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<sup>240</sup> Reiner *Astral Magic* p.20ff.

<sup>241</sup> *Early Sages* p.72.

<sup>242</sup> See Reiner *Astral Magic* and Bonner, particularly the introduction p.2ff and see the *demotic papyri* for astrological timings.

## **Magic and the amuletic tradition**

An amulet is ‘a charm, often inscribed with a spell, magic incantation or symbol, and believed to protect the wearer against evil, or to provide aid and magical benefits’.<sup>243</sup>

Hutton, having examined texts rather than artefacts, suggests that amulets can be regarded as ‘proto-talismans’ but amulets have a three thousand year plus history in their own right, much of which is imprinted in the iconography engraved upon them.<sup>244</sup> It has been suggested that lapis lazuli ‘jewellery’ worn by Inanna during her descent into the Mesopotamian underworld was amuletic in function and that a late Babylonian text may indicate that binding lapis on a finger facilitated communication between wearer and god.<sup>245</sup> In Middle Kingdom Egypt lapis, jasper and turquoise beads were hung around the neck and wrist of newborns for protection, much as is still done today in India, which can be suggested to be a precedent for the practice of birthstones.<sup>246</sup> Egyptian amulets dating to the eight century BCE have been found in Greece, indicating cross-cultural fertilisation, and Graeco-Egyptian amulets were, therefore, part of an international tradition of magic with considerably older roots.<sup>247</sup>

The power of an amulet arose out of ‘natural’ rather than demonic magic.<sup>248</sup> Inherent properties such as shape, colour and ‘right material’ - stone or pseudo-stone – combined with stellar irradiation guaranteed magical benefits.<sup>249</sup> Solar symbols were, for instance, commonly shown on the amulet that protected the head of an

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<sup>243</sup> Ikram p.137.

<sup>244</sup> See Hutton *Astral Magic* p.14 and Andrews, Carol, *Amulets of Ancient Egypt*, (London, Trustees of the British Museum Press, 1994) [hereinafter Andrews], p.8.

<sup>245</sup> See Winter p.51.

<sup>246</sup> Winter p.50. The suggestion as to a precedent for birthstones is my own.

<sup>247</sup> Pinch *Magic* p.165 and see Bonner p.324 for a detailed discussion of the history and function of amulets. See also Fritz Graft, ‘Panel Discussion: “Magic in the Ancient World”’, *Numen*, Vol.46, No.3 (1999), pp.291-325, and H.S. Versnel, ‘Some Reflections on the Relationship Magic-Religion’ [sic], *Numen*, Vol.38, Fase 2, (Dec.1991) pp.177-197

<sup>248</sup> Kierckhefer p.13 and 26 and see Reiner.

<sup>249</sup> Ikram p.137-138 and see Andrews p.6ff and p.102-106 for details of the function and use of various stones.

Egyptian mummy, indicating a celestial connection and Mesopotamian amulets were inscribed with gods.<sup>250</sup>

In Egyptian medicine no part of the body was without its god and lists of tutelary deities go back to the Pyramid Texts and were inscribed on stone amulets. In later times, the signs of the zodiac were also allocated to the body.<sup>251</sup> Such medico-magical amulets, as with protective amulets, were carefully crafted and consecrated in accordance with astrological timing in the same manner as a statue of a god, with the ultimate purpose of the amulet being ‘made alive’.<sup>252</sup> Zwierlein-Diehl has demonstrated that slight variations in the rendition of astrological symbols on Graeco-Egyptian gems are intentional, expressly indicating the time of day rituals were to be conducted.<sup>253</sup> The same ‘judicious timing for the use of the star’s influence’ applied in ancient Mesopotamia.<sup>254</sup> In Roman times, amulets worn as signet rings were an extension of the wearer’s personality *and* a shrine to the god concerned.<sup>255</sup> By this time, specific designs were regularly found on particular stones, Jupiter on milky chalcedony (quartz), Helios (sun) on bloodstone and Mercury on amethyst, but, as with the earlier Mesopotamian amulets and seal stones, there was no consensus.<sup>256</sup>

Commenting on an ideological narrative central to the concatenation between stones and sky, Struck states:

‘the significance of the theurgist’s symbol [magical amulet or talisman] lies in its claim of a direct and ineffable connection to the god... The symbol

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<sup>250</sup> Ikram p.144

<sup>251</sup> See Dawson, Warren R., ‘The Magicians of Pharaoh: the Frazer Lecture 1936’, *Folklore*, Vol. 47, No.3 (Sept. 1936) pp.234-262

<sup>252</sup> See Pinch Magic p.119 and see Bonner p.2 and Reiner Astral Magic.

<sup>253</sup> Zwierlein-Diehl, Erika (ed), *Magische Amulette und andere Gemmen des Institus fur Altertumskunde der Universitat zu Kohn* cited in Brashear p.179.

<sup>254</sup> See Reiner Astrology.

<sup>255</sup> See Henig, Martin and Arthur MacGregor, *Catalogue of the Engraved Gems and Finger-Rings in the Ashmolean Museum II Roman*, (Oxford: Archaeopress, 2004), especially the introduction.

<sup>256</sup> See Henig especially p.22, Magical Amulets, and Campbell-Thompson

becomes a part evoking the whole, a node where the god's ineffable and incorporeal being becomes fully present to us in the moment'.<sup>257</sup>

In Egypt and Greece chains of cosmic sympathy were constructed. Those in Egypt arose out of colour connections and in Greece the emanationist perspective of Proclus and Plotinus, for example, united entities on different levels of being that had affinities one with another.<sup>258</sup> The Greek chain for the moon began with the goddess Selene, descended through the Form of the Moon, the moon in nature, the Apis bull, vegetative power in general, the moon fish, silver and selenite, creating a direct presence of 'the One' on and in the earth.<sup>259</sup> It was chains such as these that underlay amulets and brought together power of the god with a planet and a stone. This idea was articulated by Alexander's tutor, Aristotle, and his teacher Plato and was still strong in the Middle Ages when Aquinas stated that 'when a mineral is formed in the ground... these processes can be traced to the influence of the heavenly bodies, which affect all things on earth by their passing through the sky'.<sup>260</sup>

In ancient Mesopotamia power was infused into an amulet by leaving it out under the stars but in Egypt consecration rituals drew down the power of the god into the stone.<sup>261</sup> In one creation epic, part of a Memphis 'mystery play' read at consecration ceremonies, Ptah creates a further generation of gods and:

He placed the gods in their shrines... he modelled their bodies as their hearts desire. And so the gods entered into their bodies, in the forms of every sort of wood, of every sort of mineral, as every sort of clay, as everything which

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<sup>257</sup> Struck p.129

<sup>258</sup> For Egypt see Pinch Magic p.81-82

<sup>259</sup> Greek chain reconstructed by Struck, see Struck p.129.

<sup>260</sup> Aquinas, Thomas, *On the Occult Works of Nature* cited in Kieckhefer p.131.

<sup>261</sup> Reiner Astral Magic p.126-9

grows upon [the earth], in which they had come into being and assumed form.<sup>262</sup>

In other words, the gods were in their statues no matter from what material they were made. Statues were then placed under the sun or moon to be energised or re-vitalised.<sup>263</sup>

Reiner points out that magical working at the popular ‘fortune telling’ level was rarely written down, presumably passing through an oral tradition due to illiteracy but a few texts are available.<sup>264</sup> In Mesopotamia cylinder seals were said to determine the fate of the wearer and requests were made to Sin, the moon god, and Shamas, the sun, for lunar or solar irradiation, and invocations were made to Ishtar (Venus) and Nabu (Mercury) for benefic influence. Whilst saying she did not want to lead her listeners astray into astral religion, Reiner nevertheless states that ‘we are bound to consider such prayers as appeals to the planetary aspect of the deity addressed when their concern is with establishing a favourable moment for making magic more efficacious, a moment established with reference to celestial movements, however unsophisticated astronomically’, which could be regarded as astral magic.<sup>265</sup> Reiner also highlights the fact that the Babylonians believed that ‘illness drizzled down from the udders of heaven, rained down from the stars or sprang from the bowels of the earth’ – liminal places where the gods dwelled and stones were formed. Stones linked to specific stars or gods were considered most efficacious as offerings or healing amulets.<sup>266</sup>

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<sup>262</sup> Mythological text from the Shabaka stele now in the British Museum. See Kaster, Joseph, *The Wisdom of Ancient Egypt*, (London, BCA, 1995) p.59

<sup>263</sup> See for instance the Temple of Abydos on which the solar regeneration ceremony is pictorially inscribed alongside the stairs leading to the roof – personal observation December 2007. It is this ceremony that Derchain (see the conclusion hereof) suggests was perpetuated by Iamblichus.

<sup>264</sup> Reiner *Astral Magic* p.127 and 89, and Reiner *Astrology* p.594

<sup>265</sup> Reiner *Astrology* p.594.

<sup>266</sup> Reiner *Astrology* p.594 and Reiner *Astral Magic* p.89

The body of knowledge that lay behind Egyptian amulets, a considerable portion being from an oral tradition, passed into *Cyranides*, a first or second century hermetic compilation work ascribed to Hermes Trismegistus, in which already established god/goddess (or planet) and stone concatenations are to be found:

If someone bears the right eye (of the bird) under a stainless sapphire, in which Aphrodite [Venus] is engraved, the bearer will be charming, he will be famous amongst people and he will gain every lawsuit.<sup>267</sup>

There is hidden symbolism here, a bird pertaining to the element of air but a bird is also a solar symbol that can be traced back to Egypt and it has been established that a bird above a fish indicates the sun sinking below the water at sunset.<sup>268</sup> It may also be that the bird is a dove, an ancient symbol for Libra, a sign viewed as charming and connected to law and fame.<sup>269</sup> The ancient attribution of Venus to sapphire has already been noted and sapphire is a birthstone for Libra.<sup>270</sup> Waegeman takes the view that ‘stones having a certain divinity are for sure planet stones having an astrological significance’ and if he is correct this very specific timing may in itself be a continuation of Egyptian ritual and astrological timing.<sup>271</sup>

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<sup>267</sup> Waegeman, Maryse, *Amulet and Alphabet: Magical Amulets in the First Book of Cyranides*, (Amsterdam: J.C. Gibben, 1987) [hereinafter Waegeman] p.7-8

<sup>268</sup> Waegeman p.224. Waegeman cites Anna Roes, ‘Birds and Fishes’, *Jaarbericht van het genootschap, Ex Oriente Lux* 10 (1945-1948), pp.461-472.

<sup>269</sup> See Bills, the identification with Libra is my own.

<sup>270</sup> See the American Jewellers’ Association official list of birthstones on <http://www.americangemsociety.org/birthstones.html> consulted 10.5.06

<sup>271</sup> Waegeman p.224. The supposition of specific timing is my own.

## **Astrological timing of rituals**

According to Reiner, it was only with the assistance of astrology that the most efficacious moment for harnessing the assistance of the planetary aspect of the deity could be ascertained.<sup>272</sup> Early Babylonian medical texts using stones make judicious use of astrology and incantations specifically instruct: ‘From on high in the sky may the thousand stars incant it and may the moon god incant it. And it remains under the stars’, clearly demonstrating a link between objects in the sky such as stars and the gods themselves.<sup>273</sup>

In Egypt, and in Mesopotamia, from the earliest times the belief prevailed that there were lucky and unlucky days as cuneiform and papyric calendars attest.<sup>274</sup>

Magical connections were further reinforced through engraving onto the stones. This use of astrology was retained into medieval times, becoming conflated with gem-magic.<sup>275</sup>

The magical or amuletic tradition and its timing cannot be further discussed here but it can be postulated that the stone horoscope arose at least in part out of this longstanding magical connection between sky, stones and *katarche* and, with the passing of texts such as *Cyranides* into Arabic and medieval magic, a vital esoteric component of ancient lore was not lost. The mantic arts may, however, provide further links between stones and the sky and would bear further investigation.

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<sup>272</sup> Reiner Astrology p.595

<sup>273</sup> Reiner Astral Magic p.50

<sup>274</sup> See Bombard, Reiner Astral Magic, Flowers p.259ff and Liber Hermetis chapter XII.

<sup>275</sup> Ryan, W.F. ‘Alchemy, Magic, Poisons and the virtues of stones in the old Russian *Secretum Secretorium*’, *Ambix*, Vol.37, Pt.1, March 1990 [hereinafter Ryan] p.49

## Divination by stones

The Urim and Thummim (hereinafter U&T) discussed in chapter 3, have been suggested to be a form of cleromancy, divination by stone lots, textual evidence showing that other ancient Near Eastern cultic practices also used this divinatory method.<sup>276</sup> The U&T bears close parallels with a Mesopotamian psephomancy tradition, divination by ritualised casting of stones, and, the two may share cultural roots. In the *Romance* and the U&T, stones are associated with the ritualist's garment.<sup>277</sup> 'Nectanebo' draws the board and stones out of his robe and the U&T are carried in the pouch of the Breastplate. The words Urim and Thummim are 'semantically related to the Akkadian designations of alabaster (great lamp) and hematite (truth stone)' so there may be cultural transmission.<sup>278</sup> In the *Romance*, Hematite represents Mars and Nectanebo's 'white marble' ascendant marker could be alabaster - closely resembling marble and found in abundance in Egypt - a stone whose name means 'life' and which Egyptians believed could support transformation.<sup>279</sup> In psephomancy text LKA 137, the ritualist calls on Shamash, the sun god, for assistance in an act of astral-magic:

I called upon you, O Shamash...

I carry the Star [unclear]

I carry the Star, I touch my forehead (with it)...

Give me a ruling, O Bel, reveal to me hidden things

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<sup>276</sup> See Kitz, Anne Marie, 'The Plural Form of Urim and Thummin', *Journal of Biblical Literature*, Vol.116, No.3 (Autumn 1997), pp.401-410 [hereinafter Kitz] p.403 and p.410

<sup>277</sup> The ritual is preserved in LKA.137. See Hurowitch p.269 and I.L. Finkel, 'In Black and White, Remarks on the Assur Psephomancy Ritual', *Zeitschrift Fur Assyriologie Und Vorderasiatische Archäologie*, 1995 Vol. 85 [hereinafter Finkel] p.276 for opposing interpretations of this ritual.

<sup>278</sup> See Hurowitz, Victor Avigdor, 'The Mesopotamian God Image, from Womb to Tomb', *Journal of the American Oriental Society*, Vol.123, No.1 (Jan-Mar 2003) pp.147-157 p.156 and p.272

<sup>279</sup> See Naydler *Shamanic* p.162

By day and night impart to me the things of secret lore.<sup>280</sup>

Finkel provisionally envisages: ‘The psephomancer using a piece of ritual apparatus in the shape of a star, perhaps fashioned of rock crystal or the like, which would function as or symbolize a means of communication with Samas [sic] in Heaven’.<sup>281</sup>

The ritual, which could be said to illustrate a cosmogonic connection between sky and stones in the context of divination, continues.

Draw on the ground [these] seven gods

Sin [the moon], Samas [the sun], Adad, Marduk [Jupiter], Urasgubba, Dagan and Nabium [Mercury]

I drew them, and now I am lifting up the stones...

Let the stone-of-desire jump up...

On the appropriate day you draw these seven gods on the ground...

Afterwards you put the enquiry to the gods and it will be reliable.<sup>282</sup>

According to Finkel, in the preparatory ritual the diviner draws a casting field upon the floor or a cloth, comprising seven rectangles for gods, the diagram for which is highly unusual and takes up almost half the tablet.<sup>283</sup> Upon this field, the stones would be cast three times, each god having his own territory.<sup>284</sup> So far as can be ascertained, despite the extensive interest of Mesopotamia in celestial omens, no academic source has yet hypothesised that these seven rectangles for gods could relate to the five visible planets and the luminaries, nor that the casting field could be a precursor that was reconceptualised as a horoscopic board in Hellenistic astrology.<sup>285</sup> If Finkel’s judgement that the answer was provided by a stone that fell into a space occupied by

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<sup>280</sup> See Finkel, words in parenthesis as given by Finkel.

<sup>281</sup> Finkel p.272

<sup>282</sup> See Hurowitz p.270 and Finkel.

<sup>283</sup> Finkel p.272

<sup>284</sup> Finkel cites Livingstone but on examination this text contains no further elucidation.

<sup>285</sup> See Chapter 3.

one of the gods is correct, this ritual with its invocation of the gods associated with planets and luminaries, the assistance of a star and the use of stones, could well provide a precedent for a later stone horoscope.

Another fragmentary and difficult to decipher early text directs a priest to ‘draw up two tablets, place them in front of the star, and you will see a sign’ but there is no indication of what these tablets might be or how the sign will make itself known.<sup>286</sup> Two other tablets, one Seleucid and the other neo-Babylonian, are incised with twelve square boxes further divided seven times that could be drawn upon a board or upon the ground. Although designated a mantic practice when found, these tablets were then demonstrated to be games, and yet could still have been used to make forecasts with astragali.<sup>287</sup> Impetrated omens such as these, commonly found in the ancient world without instructions for use, can easily be mistaken for ‘games’ rather than casting fields.

In an excavation of an Early Dynastic city in Southern Mesopotamia, a grave was uncovered with a precise arrangement of stones, including one black and one white pebble and nine other coloured pebbles including lapis and carnelian.<sup>288</sup> Stone rarely occurs in that location and must have been imported over a considerable distance. Whilst there is no evidence as to whether these stones were used for divination or protection, from as early as 3200 BCE Mesopotamian stone lapidaries existed giving properties of stones that were an important part of cultic practice and these stones could have had ‘a semantic value’.<sup>289</sup> Texts contain precise instructions for foundational deposit offerings of stones when erecting a temple but give no reason for selection of specific stones. Such stones could have endowed properties or been

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<sup>286</sup> Reiner, *Fortune Telling* p.26.

<sup>287</sup> See Hurowitz and his citations.

<sup>288</sup> See Postgate for further details.

<sup>289</sup> Winter p.50

specifically linked to the god(s) to whom the temple was dedicated.<sup>290</sup> As with the Hellenistic epigrams of Posidippus, the source of stones was clearly significant.<sup>291</sup> The practice, and extant Mesopotamian texts linking divisions of the zodiac with specific stones, demonstrates a concordance between stones, sky and gods. In Postgate's judgement, such texts post-date Alexander and early Greek lapidaries, and may point to cross-cultural fertilisation, but follow on from earlier Mesopotamian stone-lists.<sup>292</sup>

In an Egyptian burial dated to the Eighteenth dynasty, a box of pink and green stones could be cleromancy pieces, Meskell suggesting they had magical significance and that their owner, Maya, may have been one of the seers or wise women of the village, women diviners being documented at that time.<sup>293</sup> Tomb assemblages were a matter of personal choice rather than standardised cultic response to death and it can be speculated that these stones were valued for their personal significance. Burials at Deir el Medina illustrate that it was not just those who held a high place in society who wore amuletic stones and were intimately engaged with the forces of magic. Magic, as with the gods, pervaded the whole of Egyptian life.<sup>294</sup>

It can be seen that there are parallels and a potential common source for ritualised divination practices that could have passed into Hellenistic Egyptian astrology and the ideological narratives behind this concatenation are, together with relevant mythology, pursued further in chapter 4.

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<sup>290</sup> See Winter and Postgate.

<sup>291</sup> See Postgate p.212.

<sup>292</sup> See Postgate.

<sup>293</sup> Meskell, Lynn, 'Intimate Archaeologies: The Case of Kha and Merit', *World Archaeology*, Vol.29, No.3 (Feb.1998) pp.363-379 [hereinafter Meskell].

<sup>294</sup> See Frankfort, Henri, *Ancient Egyptian Religion* (1948) p.13 cited in Wengrow p.607 and Meskell p.366-368.

### Chapter 3: Accoutrements of priestly power

*From the stones which the High Priest wore (these were sardonyxes and I hold it superfluous to describe their nature, since it is known to all), there emanated a light, as often as God was present ... emitting a radiance sufficient to give light even to those far away, although the stone previously lacked this splendour.*

*Josephus.*<sup>295</sup>

The most frequently cited source of the zodiac-stones concatenation is the Breastplate of the High Priest, a potential cross-cultural fertilisation of sky and stone connections and possible primary source for the stone horoscope of ‘Nectanebo’ but which may set no precedent for either.<sup>296</sup> As can be seen from the Roman Jewish historian Josephus quotation above, the stones of the Breastplate were said to shine with God’s presence, conflating stones and deity.

A hearsay account of the Breastplate as an oracle is also found in Josephus: ‘God announced victory by means of the twelve stones worn by the High Priest on his breast... the Greeks called this pectoral ‘logeion’ or oracle’.<sup>297</sup> Josephus is not a reliable source but is indicative of the length of time over which cultural memory of a practice endures. As the twelve stones became foundation stones for the New

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<sup>295</sup> Josephus, *Antiquities* in ‘Complete Works of Flavius Josephus’ on <http://www.giveshare.org/library/josephus/ant-3.html> consulted 22.5.07 [hereinafter Josephus] p.294

<sup>296</sup> For ‘popular’, non-academic, presentations of the Breastplate as a source for birthstones see previous citations and, for example, [http://www.gemstone.org/gem-o-rama/gem-o-rama\\_birth.html](http://www.gemstone.org/gem-o-rama/gem-o-rama_birth.html) consulted 18.5.07 and for the Breastplate see Kunz and <http://www.jewishencyclopedia.com/view.jsp?artid=52&letter=U> [hereinafter Jewish Encyclopedia] consulted 3.3.2006

<sup>297</sup> Josephus p.242

Jerusalem in Revelations, the tradition quickly passed into Christian texts and was maintained for two millennia.<sup>298</sup>

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<sup>298</sup> See Kunz and also J.J. Kent, 'History of the Breastplate of the High-Priest' on <http://www.jjkent.com/articles/history-Breastplate-high-priest.htm> consulted 27.11.2005

## The Breastplate of the High Priest

Josephus offers a glimpse into perceived cosmological connotations of a stone-studded symbol of priestly power:

The vestments of the high-priest being made of linen signifies the earth, the blue denotes the sky... the ephod, ...the universe of four elements ... the breastplate to be placed in the middle of the ephod to resemble the earth, for that occupies the middle place in the world; and the girdle... signifies the ocean for that goes about everything... And the two sardonyxes that were in the clasps on the high-priest's shoulder, indicate to us the sun and the moon. And for the twelve stones, whether we understand by them the months or the twelve signs of what the Greeks call the zodiac, we shall not be mistaken in their meaning.<sup>299</sup>

Whether this was popular opinion at the time Josephus was writing or a continuation of earlier orthodox tradition is unclear.<sup>300</sup> Such an association with the zodiac must be regarded as a cultural retrojection, however, as the academic consensus is that the zodiac had not been formulated at that time.<sup>301</sup> Nevertheless, the correlative thinking that creates a vertical correspondence between Breastplate and cosmos, and an example of 'as above so below', is illustrated by the first century Hellenised Jewish Stoic philosopher Philo, who explained that when the High Priest put on his vestments:

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<sup>299</sup> Josephi, Flavii, Dindorf, Parisii, (ed), 1887, vol.ii p.97 'Antiq. Jud.' Lib. Iii, cap.7, para.7 (*Antiquities of the Jews*) cited in Kunz p.309.

<sup>300</sup> Josephus, Flavious, *Bellum Judaicum* V.5.5. cited in Robert Zoller *Jewish Astrology* (London: New Library Limited, 2004) [hereinafter Zoller] p.12

<sup>301</sup> See Neugebauer and Parker p.203ff although the zodiac had been formatted by the time the oral narrative was committed to paper during the Jewish exile to Babylon. Space does not allow a further discussion as to the origins of the zodiac but see Evans History for a summary of a current thinking and the citations in note 19 herein.

He ought straightway to become one who bears in his mind the original pattern, so that he is in a sense transformed from being a man into the nature of the cosmos, and becomes... a little cosmos.<sup>302</sup>

This is correspondence and something that can perhaps best be termed anagogy, concepts that underpin astrology and the animated cosmos.<sup>303</sup>

The Breastplate incorporated cultic elements from Mesopotamia and Egypt. Although lost at the Babylonian exile, its description was preserved in the Torah for continuity of tradition.<sup>304</sup> If a concatenation between stones and months existed in Judaism, it could have found its way into the astrological practice in the *Romance* as there were many Hellenised Jews in Alexandria. An ‘astrological treatise’ said to have been addressed by Solomon to his son Roboam purportedly preserved Jewish astrological lore and planet-stones concatenation, but may be a later pseudo-work particularly as the same lapidary contains the ‘Nectanebo’ casket list.<sup>305</sup>

The instructions contained in Exodus 28: 15-30 for fabricating the Breastplate are specific:

And thou shalt set in it settings of stones, even four rows of stones: the first row shall be a sardius [sardonyx], a topaz, and a carbuncle [garnet/carnelian]: this shall be the first row.

And the second row shall be an emerald, a sapphire, and a diamond. And the third row a ligure, an agate, and an amethyst. And the fourth row a beryl, and an onyx, and a jasper; they shall be set in gold in their enclosings.

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<sup>302</sup> See chapter 4 correspondence section regarding ‘as above so below’. Regarding Philo, Stuckrad cites ‘Translation Goodenough 1953-68, vol.8: 210ff’ but gives no further details. It is most probably Erwin R. Goodenough, *Jewish Symbols in the Greco-Roman Period* but it has not yet been possible to confirm the reference.

<sup>303</sup> These concepts are examined in chapter 4 and see Voss p.2

<sup>304</sup> Geller, M.J. ‘The Influence of Ancient Mesopotamia on Hellenistic Judaism’ in *Civilisations of the Ancient Near East*, Vol. 1 p.43-54 [hereinafter Geller]

<sup>305</sup> See *Lapidaries Greco* p.43.

And the stones shall be with the names of the children of Israel, twelve,  
according to their names, like the engravings on a signet.<sup>306</sup>

The nomenclature differs in practically every biblical translation so it is impossible to make any comparisons with stones in the *Romance*.<sup>307</sup> There is, however, clearly no connection to the zodiac in the biblical passage and the alleged precedent must be a later appendage.

According to Exodus 28.10, the ephod that accompanied the breastplate had onyx mounted on the shoulders engraved with the names of the tribes ‘according to their birth’, which could potentially be regarded as related to order, time or season. By the time Exodus was attested during the Exile, the Jews would have encountered the Mesopotamian zodiac and it could have become part of the cultural norm, particularly as there are astronomical texts in Aramaic, colloquial language of Mesopotamia at the time, and there is potential here for retrojection of a zodiac-Breastplate concatenation.<sup>308</sup> Mesopotamian astronomy had a profound effect on the Jewish cultic calendar.<sup>309</sup> If the Breastplate incorporated elements of an earlier Egyptian seasonal calendar, as suggested by Millar, the correlation would presumably have been lost with the calendric change.<sup>310</sup> Millar uses the cardinal points, presumably based on the position of the sun, and the ‘portions’ allotted to the tribes in Ezekiel although this is not explained. Such a positioning may be cosmological but it is not specifically

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<sup>306</sup> King James translation

<sup>307</sup> See Kunz p.301. Since his list the differences have proliferated and it is impossible to establish exactly which stones were in the Breastplate.

<sup>308</sup> Greenfield and Sokoloff.

<sup>309</sup> See Geller p.43-54

<sup>310</sup> For the Egyptian seasonal suggestion see Millar, F. Graham, ‘Breastplate of the High Priest, which tribe to which jewel?’ on *Lexiline*, <http://www.lexiline.com/lexiline/lejxi25.htm> consulted 21.10.2006 [hereinafter Millar]

astrological or, as far as can be ascertained, esoteric, but it does illustrate popular notions concerning the Breastplate.<sup>311</sup>

It is in the prophet Ezekiel that a potentially direct connection between time of birth, stones and God is found:

You were in Eden, the garden of God,  
Every precious stone was your covering,  
Carnelian, chrysolite, and moonstone, beryl, onyx, and jasper, sapphire [or lapis lazuli], turquoise, and emerald;  
And worked in gold were your settings and your engravings.  
On the day that you were created they were prepared...  
You were on the holy mountain of God;  
You walked among the stones of fire.

Ezekiel 28:13-14 (NRSV)

Again translation problems occur, the King James version rendering lines 5 and 6: ‘the spindles you wore were made for you on the day of your birth’. The ‘day you were created’ suggests conception, although arguably could be birth, but ‘the day of your birth’ indicates the possibility of a stone for the month, or day, of birth, which could be preserving an ancient custom of a specific stone marking birth, or a connection to the planet ruling the hour of birth, as later Rabbinical texts stress that the *mazzal* of the hour determines destiny.<sup>312</sup>

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<sup>311</sup> This could usefully be pursued through Jewish esoteric literature at some time in the future.

<sup>312</sup> Lack of space precludes a discussion as to Jewish attitude to divine election and free will but see Stuckrad p.27. For hour of birth see Stuckrad p.26. Lack of access to Rabbinic writings has made it impossible to follow up this idea further at the present time. See Schmidt AJA p.4 for conception astrology rather than time of birth.

This particular portion of Ezekiel appears to have been penned during his exile in Babylon, sometime after his call to prophesy in 593 BCE, an event accompanied by cosmological signs and zodiacal and stone imagery:

A stormy wind came out of the north, a great cloud with brightness around it and fire flashing forth continually, and in the middle of the fire ... gleaming amber [also translated as 'awesome crystal']. In the middle of it ... four living creatures... the four had the face of a human being [Aquarius], the face of a lion on the right side [Leo], the face of an ox on the left side [Taurus], and the face of an eagle [Scorpio]

This is the fixed cross of astrology.

... the wheels and their construction, their appearance was like the gleaming of beryl... over the heads of the living creatures there was... a dome, shining like crystal... Above the dome [was] a throne, in appearance like sapphire... Like the bow in a cloud on a rainy day, such was the appearance of the splendour all around. This was the appearance of the likeness of the glory of the Lord.  
[Ezekiel 1]

This text illustrates cultural borrowing as it parallels an earlier Babylonian text setting out cosmology of the worlds that links stones to the heavens and gods to constellations set therein.<sup>313</sup>

The upper heaven is Luladanitu stone of Anu...

The middle heaven is Saggilmut stone [amber] of the Igigu.

Bel sat on a throne within

On a dais of lapis lazuli.

He made glass and crystal shine inside it

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<sup>313</sup> For the cultural transmission see Annus, p.191

The lower heaven is jasper of the stars.

He drew the constellations of the gods on it...<sup>314</sup>

Ezekiel and the Breastplate epitomise the divine connection to stones found throughout the Old and New Testaments. They illustrate the difference between prophesy and divination. The Lord speaks directly to Ezekiel and gives him prophetic visions that he passes on to the people. The High Priest is not spoken to directly, he uses a divining tool through which God reveals his purpose and prognostications.<sup>315</sup> That tool, whilst having no direct connection with the zodiac, nevertheless has a relevance to stones and contemporaneous mantic practices.

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<sup>314</sup> Livingstone p.82

<sup>315</sup> For instances of consulting God with the Breastplate see Judges 1:1-20, 18:28, I Samuel 23:9-11, 30:7-8, and see Jewish Encyclopedia for Illustrations of High Priest wearing Breastplate also [http://www.gemstone.org/gem-o-rama-gem-o-rambirth\\_plate.html](http://www.gemstone.org/gem-o-rama-gem-o-rambirth_plate.html) and <http://www.israelbiblicaltours.com/Eilat%20Photos/Tabernacle%20of%20Moses/tab> consulted 22.9.2006, Ezekiel: Encyclopaedia Britannica 1995 edition Vol.4 p.644, Albertus Magnus; Anon: *Dress and Breastplate of the High Priest* <http://www.ohiograndchapter.org/dress.htm> consulted 27.11.2005, Evans Jewels, Millar, T. Lewis, *Breastplate of the High Priest* in Bible History on line <http://www.bible-history.com>.

## The Urim and Thummim

The Breastplate also contained the U&T, an enigmatic feature of Jewish cultic practice – no one is certain precisely what these were, or indeed if they were plural, but amongst suggestions are that they were meteorites or precious stones.<sup>316</sup>

Augustine is alleged to have said, circa 400 CE, that ‘some described a stone that changed colour’, once again supporting the longevity of tradition and cultural memory.<sup>317</sup>

By consensus and further textural evidence, the U&T are regarded by most biblical scholars as ‘a means of enquiry of the will of the Lord’, a ‘distinctive symbol of the priest in his capacity as the giver of oracles’, a method of divination sanctioned by biblical authority.<sup>318</sup> Little is known as to how it functioned.<sup>319</sup> The Talmud is reputed to describe it ‘as a kind of ouija board’ with messages spelled out for the High Priest.<sup>320</sup> A mysterious or flashing light features in many post-biblical descriptions of the oracle in use and it has been suggested the name means ‘perfect lights’, but this is not evident in biblical passages.<sup>321</sup>

Mesopotamian sources describe an *elmeshu* stone that shone which also functioned as an oracle so there may be syncretistic fusion of elements occurring here.<sup>322</sup> Also found in Mesopotamia literature is the ‘Tablet of the Destinies’, one of

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<sup>316</sup> See Jewish Encyclopedia. For a discussion as to whether the Urim and Thummim were singular or plural objects, see Houtman and also Kitz, Musss-Arnolt, W. ‘The Urim and Thummim: A Suggestion as to Their Original Nature and Significance’, *The American Journal of Semitic Languages and Literatures*, Vol. 16, No.4 (Jul. 1900) pp.193-224. Houtman takes the view that, as a gift from God, it is plausible to consider them a ‘medium of heavenly origin’, Houtman, p.230.

<sup>317</sup> Kunz. This reference is still being checked as it is given in Latin without source.

<sup>318</sup> Lewis.

<sup>319</sup> For a discussion on Jewish divination practices see Hurowitz, Victor Avigdor, ‘Review: True Light on the Urim and Thummim’, *The Jewish Quarterly Review*, New. Ser., Vol.88, No. 3/4 (Jan-April 1998) pp.263-274) [hereinafter Hurowitz U&T]. Hurowitz states it appears ten times, Kitz seven.

<sup>320</sup> It has not been possible to confirm this, see Dennis, Rabbi Geoffrey W. *Urim and Thummim* on [www.pantheon.org/articles/urim\\_and\\_thummim.html](http://www.pantheon.org/articles/urim_and_thummim.html) consulted 2.3.2006

<sup>321</sup> See Hurowitz p.265ff and Kitz p.402.

<sup>322</sup> See Hurowitz p.269.

the ‘cosmic bonds’ that chained together the portions of the Mesopotamian cosmos which Marduk (Jupiter) claimed for his own. This act may indicate another cross cultural borrowing by the Jews, or an earlier common source. It gave Marduk the authority to ‘set the celestial bodies in the sky’ and regulate astronomical cycles.<sup>323</sup> The tablet later passed into the domain of Ninurta (Saturn). Muss-Arnolt makes the judgement that the Tablet of the Destinies and the U&T ‘revert to the same fountain-head and origin’.<sup>324</sup> He takes the view that this is an extremely ancient ideological narrative that stems back to an age when ‘mysterious personality and power were attached to lifeless matter’. Whether or not that matter was lifeless is discussed in the next chapter.

Ancient divinatory practices such as the U&T and Nectanebo’s stone horoscope may well have shared a common archaic root source. However, it would appear that, whilst the Breastplate might have been interpreted at a later date as appertaining to the zodiac and birthstones, these were retrojected ideas rather than being a demonstrable cultic practice at the time the Breastplate was constructed. The stones of the Breastplate are, therefore, unlikely to be a primary source for planetary gems in the *Romance* or PGM CX but may be precedents for magical stone lore that passed into Hellenistic astrology.

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<sup>323</sup> Jewish Encyclopedia p.6 and see Annus p.149 who cites Dalley, 1997:170 but no further details are given. See Muss-Arnolt p.205 for the connection with Kingu.

<sup>324</sup> See Muss Arnolt page 211ff for a further discussion.

## Chapter 4: The animated cosmos

*Alexander, I have many times written to you that the essence of the whole world is one and that there is no variety in its substance but only in the manifestation and that it is in its form and elements that it varies.*

*Pseudo-Aristotle*<sup>325</sup>

The ideological narrative set out above was ancient when Parmenides (c.475 BCE) introduced the ‘many worlds as one world’ concept that was extended under the influence of the Pythagoreans and other Greek philosophers.<sup>326</sup> In some narratives the ‘essence’ is a subtle substance, such as Aristotle’s indestructible ‘aether’, or is divine, the Stoic ‘divine breath’ or pneuma that filled the gap between earth and sky in a dynamic continuum which ensured sympathy of the whole and its parts.<sup>327</sup>

In the view of sixth century BCE Presocratic Anaximenes: ‘underlying nature is one and infinite’. He identified the cohesive factor as air - a substance that condensed into stone - and which can be equated to the Egyptian god Shu, the atmosphere or breath of life, who separated earth from sky and created an *above* and a *below*.<sup>328</sup> Anaximenes’ view is in contrast to Plato who saw the element condensing into stones as water and Anaxagoras who, whilst denying any imputation of life in the material of the cosmos, nevertheless saw stars as ‘fiery stones’ carried by rotation of the aether, some of which fell to earth as meteorites.<sup>329</sup>

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<sup>325</sup> Ryan p.49

<sup>326</sup> For a non-academic discussion as to this, see for instance Randall, Alan F., ‘Parmenides’ Principle’ p.3 on <http://home.ican.net/~arandall/Parmenides/Parm-comment.html> consulted 28.10.2004, and see also M.R. Wright, *Cosmology in Antiquity* (London: Routledge, 1995) [hereinafter Wright] Chapter 4.

<sup>327</sup> See Wright chapter 4 and 5.

<sup>328</sup> Faivre p.3 and see Parkes p.79 and see also Naydler *Shamanic* p.17-19.

<sup>329</sup> Plato p.1252 and see Wright p.170.

In this chapter we will briefly examine the mythological basis for concatenation of sky and stones. First however, we review a fundamental precept of the stone horoscope. In attributing specific stones to horoscopic factors, astrologers and magicians draw on consonance between microcosm and macrocosm - perceived correspondences between zodiac signs, stars and planets and stones, minerals, and the like – although there is no universal consensus.<sup>330</sup> It is, however, an example of correlative thinking uniting microcosm and macrocosm: an assumption of analogies and symmetries linking the divine, planetary spheres and earth through which ‘oneness’ can be experienced above and below, a reification that can be regarded as entering the imaginal realm or an experience of *participation mystique*.<sup>331</sup> The ecstatic, shamanic, communication with the divine that can arise from this worldview has been depicted as:

[giving] himself up to ecstasy, which frees him from the trammels of his flesh and lifts him, far above the mists of our atmosphere, into the serene regions where move the everlasting stars...there he partakes of the life of these luminous gods, which from below he sees twinkling in the radiance of the ether; ... he participates in their divinity, and receives their revelation in a stream of light, which by its brilliance dazzles even the eye of reason.<sup>332</sup>

This is far removed from the sober language usually employed by Cumont, who is apparently quoting Plato who upheld a picture of the heavenly bodies as ‘visible gods’ animated by ‘divine minds’ rotating in celestial spheres.<sup>333</sup> This ‘fervent

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<sup>330</sup> See Kieckhefer p.134.

<sup>331</sup> Parkes p.77, Faivre p.76, Abram p.57, and Lucien Levy-Bruhl, *How Natives Think* (Princeton, Princeton University Press, 1985 reprint) p.77

<sup>332</sup> This quotation is cited in McMinn as being from Cumont, Franz, *Astrology and Religion among the Greeks and Romans* (New York, G.P. Putnam’s sons 1912) p.144-45. However, the Dover Publications Inc. edition, 1960 [herein Cumont] has no such page numbers and it has been impossible to check the reference, the nearest being p.30 where the paraphrased passage is attributed to Plato *Epinomis*.

<sup>333</sup> See Dodds p.220

contemplation of the wondrous spectacle of harmonious movements' leads to a mythopoetic view of the universe, and direct experience of an enlivened, gods-infused cosmos.<sup>334</sup> It is mirrored, without a divine context, by a spontaneous phenomenological experience of Abram, a modern sleight-of-hand magician on an anthropological fieldtrip:

I was no longer simply beneath the night sky, but also *above* it – the immediate impression was of weightlessness. I might have been able to reorient myself, to regain some sense of ground and gravity were it not for a fact that confounded my senses entirely: between the constellations below and the constellations above drifted countless fireflies, their lights flickering like the stars, some drifting up to join the clusters of stars overhead, others, like graceful meteors slipping down from above to join the constellations underfoot... I felt myself at times falling through space, at other moments floating and drifting... [it] held me in a sustained trance. Even after I crawled back to my hut and shut the door on this whirling world, I felt that now the little room in which I lay was itself floating free of the earth.<sup>335</sup>

According to Hull, 'the one who perceives the nature of the mystic bonds which tie everything from the lofty stars to the earth bound roots in one throbbing identity [is] seer, philosopher and magus'.<sup>336</sup> These cosmotheistic and meaning-full perspectives are explored in this chapter, as is animism and the notion of a vertical chain of existence with relevance to the stone horoscope.<sup>337</sup> Such an experience of a god-infused world is subjective and archaeologists have a tendency to be 'so locked into

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<sup>334</sup> McMinn.

<sup>335</sup> Abram p.4

<sup>336</sup> See Hull p.34. Hull is here discussing a passage in the Jewish Wisdom of Solomon but the viewpoint is applicable to the contemporaneous Middle Eastern World.

<sup>337</sup> For cosmotheism see Assman. See also Schoener p.8 and Stuckrad p.5

objectivity that the subjective experience is excluded', which can negate the emotive dimension of the past and 'preclude the empathy necessary for historical insight' or, it can be argued, metaphysical gnosis.<sup>338</sup> Standing in mythopoeic cognition affords tangible participation in ancient ideas, as when Frankfort handled a Mesopotamian cylinder seal and allowed his senses to react to images thereon, thus moving him into a phenomenological experience of the animated cosmos.<sup>339</sup> However, ancient peoples may have moved beyond such sense perception into anagogy, a *living mystical experience* of the sacred infusing the cosmos. According to Hull, the 'common magical device of pretending to be the god' reflects this but 'pretending' could perhaps have been better expressed as 'identifying with' or 'being' the god as that *becomes* or partakes of the qualities in an anagogic communion that encompasses an act that is 'both mystical and power producing'.<sup>340</sup>

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<sup>338</sup> Meskell p.377, and see Wengrow p.607 and Riffard.

<sup>339</sup> See Wengrow p.602 who cites Frankfort's personal correspondence with his friend van Regteren Altena.

<sup>340</sup> Hull p.34

## Correspondence, signatures and sympathy

In examining Mesopotamian culture, Parpola has stated that:

strange and exotic features conceal within themselves an invisible world of ideas more familiar to us, which resurfaces in new garments but largely identical in content in classical antiquity. In Mesopotamia the visible and invisible worlds were connected with each other through a complex system of symbols, images, metaphors, allegories and mental associations.

He is of the opinion that ‘unravelling this symbolic code opens the way to the core of Mesopotamian culture, the world of ideas hidden behind the conventional and alien surface’ – in other words, esotericism.<sup>341</sup> It can be argued that it also opens the way to understanding the phenomenological and ideological basis of the stone horoscope. An Egyptian Hellenistic text asks, ‘what is the human body but a constellation of the same powers that formed the stars in the sky?’<sup>342</sup> Although post-dating the *Romance*, the text goes on to say ‘he who knows Mars knows the qualities of iron [hematite] and he who knows what iron is knows the attributes of Mars’, which epitomises a foundational precept in attributing stones to planets:

Affinities and antipathies to the human constitution are to be found in these crystallized representatives of the subtle, invisible influences emanating from our planetary system. They are the mediums for the transmission of corresponding attributes and influences of existing powers and potencies, and

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<sup>341</sup> Parpola, Simo, ‘The Mesopotamian Soul of Western Culture’. Lecture at Harvard University 1.11.2000 <http://www.bethsuryoyo.com/currentevents/simolecture/lecture.html> consulted 3.12.2006. p.2

<sup>342</sup> Paracelus, source unattributed and therefore not checked, cited in Thomas H. Burgoyne, Henry Wagener and Belle Wagener, ‘The Light of Egypt’, Vol.II ‘Alchemy Part II’ on *The Light of Egypt*, Chap.VIII [hereinafter Alchemy] p.1 on <http://www.worldwideschool.org/library/bvooks/phil/paranormalphenomenaoccult/The/html> consulted 12.03.2007 [hereinafter Alchemy] p.1

if carried or worn upon the person, they will bring the person in direct rapport with the invisible forces within the universal system.<sup>343</sup>

The concept of correspondence is fundamental to the astrological notion of a reciprocal relationship between earth and sky and to the concept of stones corresponding to a planet or sign. Essentially, the law of correspondence reflects the belief that heavenly influence, in whatever shape or form a culture prescribes it, is acting in, and can be perceived through, forms in the physical world: a concept not limited to astrology as, for instance, when expressed by a Stoic: ‘ever consider the Universe as One Living Being, with one material substance and one ethereal. Thus the macrocosm (the greater world) is always seen as revealed in the microcosm (the lesser world)’.<sup>344</sup>

Based on a form of cognition in which man and nature are complementary rather than separate, ‘correspondence is predicated on the social acceptance of a stated affinity existing between two or more types of “being”, “object”, or “activity”’.<sup>345</sup>

Ancient cosmological theorising rests on understanding the essential linkage of the minutely small with the immensely large.<sup>346</sup> As Rochberg-Halton explains:

‘analogy between the macrocosm and microcosm, which implied that man’s soul was a reflection of the cosmic soul, provided the rationale for direct stellar influence upon society and the individual. The microcosm-macrocosm analogy is therefore embedded within the astrological interpretation of the cosmos and man’s relation to it.’

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<sup>343</sup> Alchemy p.9

<sup>344</sup> Marcus Aurelius cited without source in Alan Oken, *Complete Astrology* (New York, Bantam Books 1980) p.5

<sup>345</sup> Ruggles, Clive L. N. and Nicholas J. Saunders, *Astronomies and Cultures* (Colorado: University Press of Colorado 1990) [hereinafter Ruggles] p.7

<sup>346</sup> Wright p.3

Pointing out that this idea is found in Democritus (c.460-400) who called the individual a *mikros kosmos*, or microcosm, she opines that the basic idea of an intimate relationship between the heavens and man may be older.<sup>347</sup> In my own research, I have taken this back another two thousand years in Egypt where it formed part of a magical worldview reiterated in Mesopotamia as the basis for the Chain of Being.<sup>348</sup> In Egyptian coronation and renewal rites, a Sed Festival united Above and Below and the earth was ‘infused with the fructifying energies of the spirit realm’.<sup>349</sup> To Naydler:

‘in a macrocosmic experience of landscape people saw universal, spiritual forces active and immanent in the desert and flood, the course of the sun, the dome of the sky, and throughout the phenomenal world... for the ancient Egyptian, a metaphysical world poured into the physical, saturating it with meaning’.<sup>350</sup>

Correspondence is examined here in the light of a non-mechanistic concatenation that draws together, or reveals, a connection between stones and sky. In Proclus, for instance, each god has sympathetic, representative stones that can, according to a late Hermetic dialogue, be used to imprison in a consecrated statue or amulet the souls of beneficent daemons or angels, whereas in earlier Egyptian and Mesopotamian rituals, a statue or amulet became imbued with the living presence of the god.<sup>351</sup> In Hellenistic Greece, metals, minerals and precious stones had a particularly powerful sympathy with the spiritual realms.<sup>352</sup>

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<sup>347</sup> Rochberg-Halton p.117 and see Wright p.56, and p.34 for Democritus.

<sup>348</sup> See Hall Correspondence and Hall Chain

<sup>349</sup> Naydler Shamanic p.88

<sup>350</sup> Naydler Temple p.11

<sup>351</sup> See Dodds p.293 and see also Hall Correspondence and Hall Chain.

<sup>352</sup> See Hull p.11

Briefly stated, the astrological law of correspondence is seen as: ‘as above, so below’ and it is not so much that what *happens* above effects below but rather that what *is* below is a reflection of what *is* above. It is a term ‘used to denote the ‘occult’ or ‘hidden’ relationships between natural forms and spiritual causes, or between the microcosm and the macrocosm, which is observed acting through “Sympathy” expressed in the “Chain of Being”’.<sup>353</sup>

However, magical workings and the amuletic tradition imply that what is below had power to effect above as well. In Thales cosmogony, for instance, ‘the lives of the stars are fed by exhalations from the sea’.<sup>354</sup> Reputed to arise in the Emerald Tablet of Hermes Trismegistus, this doctrine passed virtually unchanged from the Hermetic to the modern astrological world.<sup>355</sup>

There is attestation of the concept of correspondence in Egypt from the earliest times:

If I live or pass on, I am Osiris.

I enter in and reappear through you.

I decay in you, I grow in you,

I fall down in you....

The gods are living in me for I live and grow in the corn that sustains the

Honoured Ones....

I have entered the Order,

I rely upon the Order,

I become Master of the Order,

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<sup>353</sup> Gettings, Fred, *Dictionary of Astrology* [London: Routledge and Kegan Paul 1985] [hereinafter Gettings] p.80

<sup>354</sup> Wright p.60

<sup>355</sup> For an in-depth discussion see Skyscript Astrological Forum: ‘Correspondence’ <http://skyscript.co.uk/forums/viewtopic.php?t=517&sid=1509b28891588117b3653f62475499a2> (posted 18 July 2004), consulted 20.11.2004 and Hutton Astral Magic.

I emerge in the Order.

I make my form distinct

Coffin Text 330 c.1759 BCE<sup>356</sup>

And in Mesopotamia it was specifically stated:

The signs on earth just as those in the sky give us signals

Sky and earth both produce portents

Though appearing separately, they are not separate (because) sky and earth are related.

A sign that portends evil in the earth is (also) evil on earth,

One that portends evil on earth is evil in the sky.<sup>357</sup>

Belief in correspondence appears to be unaffected by whether the divine force is perceived as immanent or transcendent: that is to say, whether it is found within the created world or stands apart from it. In the context of stones representing planets in the *Romance* and the demotic papyrus, a stone is cosmogonic, the inference being that the influence of the planet or zodiac sign then manifests on the earth through that stone.

The term ‘rulership’ is widely used of planets and signs to indicate ‘particular relationships and congenialities’ that occur through the ancient doctrine of signatures.<sup>358</sup> ‘Every material form bears an outer stamp of the planetary or zodiacal principle which underlies... its quintessential nature - represented within the form’.<sup>359</sup>

The doctrine of signatures may also underlie stone connections to planets and gods.

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<sup>356</sup> Rundle Clark, R.T. *Myth and Symbol in Ancient Egypt* (N.Y: Thames and Hudson, 1959) [hereinafter Rundle Clark] p.142.

<sup>357</sup> K.6476, Oppenheim, p.204

<sup>358</sup> Gettings p.274 and p.299

<sup>359</sup> See Gettings

Paracelsus suggested that this is ‘the science which teaches one to know the stars, what the heaven of each may be, how the heaven has produced man at his conception, and in the same way constellated him’.<sup>360</sup> However, the ancients would not have analysed the concept in quite this way and Winter takes the view that lapis lazuli was prized for ‘multivalent associations’ and innate underlying sacred properties of which the external appearance was a reflection, so its selection was more purposeful than is comprehensible to modern day perception.<sup>361</sup> Under the doctrine of signatures and the law of correspondence, the glittering, golden crystalline protrusions of deep blue lapis lazuli, for example, could be said to be an epiphanical representation of the heavens. In Egypt and Mesopotamia, the colour blue was associated with cosmic phenomena and described physical qualities of stellar gods.<sup>362</sup> In the fifth dynasty Pyramid Texts, the oldest extant corpus of religious and funerary literature, it is said that:

The King controls the god,  
 The King has power over the Ennead,  
 The King makes lapis-lazuli grow, ...  
 The King has united the heavens...<sup>363</sup>

In the Hibis hymn to Amun, the Ogdoad (gods) recite that: ‘his bones are silver, his skin gold, his hair is real lapis lazuli’ whilst in the songs of Isis and Nephthys, the goddesses address their brother Osiris in similar fashion: ‘your hair is of lapis lazuli... your vertebrae [are] made of turquoise.’<sup>364</sup> The ancient Egyptians, whilst poetic in

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<sup>360</sup> Cited in Gettings p.299 without further attribution

<sup>361</sup> Winter p.53-3 and 57

<sup>362</sup> Ikram p.138

<sup>363</sup> Utterance 319, Faulkner, R.O., *Ancient Egyptian Pyramid Texts* (Oxford: Oxford University Press 1969) p.101.

<sup>364</sup> Davies, ‘The Temple of Hibis in El Khargeh Oasis’ cited in Mark Smith, *On the Primaeval Ocean, The Carlsberg Papyrus* (Copenhagen: The Carstein Institute of Near Eastern Studies, University of Copenhagen, 2002, Museum Tusculaneum Press) [hereinafter *Primaeval Ocean*]

utterance, were also literal.<sup>365</sup> This is correspondence in action: the god in the heavens is made of lapis, and the stone carries the qualities of the god on earth. Similarly, a planet carries the god and shines qualities upon the earth.

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<sup>365</sup> See Assman and Hornung.

## Mythological beginnings

Stone is the most common celestial substance in the ancient world.<sup>366</sup> This is hardly surprising when stones literally fall out of the sky.<sup>367</sup> Tektites from a strewfield in the Libyan desert were, for example, used in Tutankhamon's funerary mask and could have a function other than purely decorative.<sup>368</sup> In early Egypt the sky was turquoise and in Mesopotamia lapis lazuli, although such descriptions need not be taken literally as 'these ideas seem to be more in the nature of a metaphor than an engineering description of the sky's substance and structure'.<sup>369</sup>

The stone sky was indirectly known in classical Greece through the cosmology of Plato, Aristotle and crystalline spheres that ascended from the material earth to 'the intelligible One'.<sup>370</sup> Many cultures see the creation of humankind as autochthonous, and in Greek mythology Deucalion and Pyrrha repopulated the earth after the flood by throwing stones, 'the bones of their mother', over their shoulders, from which human beings sprang.<sup>371</sup> Conversely, gods and humans turned to mountain, tree and stone.<sup>372</sup> The atomist Lucretius envisaged wombs in the earth that nourished the first life forms and crystals found within pockets of the earth were viewed as having grown imbued with life.<sup>373</sup> In Ovid, stones were regarded as

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<sup>366</sup> See Metevelis, Peter, 'The Lapidary Sky over Japan', *Asian Folklore Studies*, Vol. 59, No.1 (2000), pp.79-88 [hereinafter Metevelis] p.83, Pinch Hathor p.278 for 'the Field of Turquoise' as the dwelling place of the dead.

<sup>367</sup> Annus p.150

<sup>368</sup> BBC 2 documentary 17.3.2006, title unknown.

<sup>369</sup> See Jacobsen Review p. 142, Winter p.47, Pinch p.278 and Metevelis p.81

<sup>370</sup> See Voss p.2 and see Edward Rosen, 'The Dissolution of the Solid Celestial Spheres', *Journal of the History of Ideas*, Vol.46, No.1 (Jan-Mar 1985) pp.13-31.

<sup>371</sup> Wright p.60.

<sup>372</sup> See Wright p.68.

<sup>373</sup> Wright p.61

formerly ‘alive and suffering’, carrying perhaps a remnant of Mesopotamian *Lugale* mythology, and flint, bluestone, adamant, and marble had aetiological histories.<sup>374</sup>

The cosmos was perceived as ‘sustained and ruled by a huge number of independent forces’ that became epitomised by gods, planets, luminaries and stones.<sup>375</sup> It is not surprising, therefore, that in Mesopotamian and Egyptian cosmogony, earth and sky were once conjoined but became separated by a god. Indeed, in Egypt the earth *was* a god, Geb, and the sky a goddess, Nut.<sup>376</sup> Vegetation grows out of Geb’s backbone, from his ribs barley springs and his body yields metals and stones: earth and sky are alive and divine.<sup>377</sup> These creation myths are not homogenous, but do indicate that from the beginning, earth and sky were conflated.

In the opening to the Mesopotamian epic *Lugale* it is stated that: ‘Ninurta, the foremost one possessing great might, plundered the mountains at his back’.<sup>378</sup> Ninurta, the astrological Saturn, did battle with a cohort of rebellious – and very much alive - stones and, on his victory, became ‘the master of the secret lore’. He assigned to certain stones a beneficial role and to others a malefic in the same way that some planets came to be looked on astrologically as benefics and others malefics.<sup>379</sup> Such beneficence does not always correlate between planet and stone. Hematite, for example, was blessed by Ninurta as ‘worthy of respect, whose surface reflects the light’ whereas Mars, to whom the stone is attributed, is not regarded as benefic astrologically speaking.<sup>380</sup> Annus takes the view that the *Lugale* stone list had a

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<sup>374</sup> Wright p.68.

<sup>375</sup> Finkelstein ANE p.593, and Metevelis p.84. See Metevelis for the survival of contexts, associations and synapses with other motifs.

<sup>376</sup> See Jacobsen review article and see Naydler Shamanic and Temple.

<sup>377</sup> See Naydler Temple p.14 and *Primaeval Ocean*.

<sup>378</sup> Geller p.216. See Arnold and Godzin Gould. For the magician functioning at the spatial boundary of the community see Abram p.6 and see Geller p.215.

<sup>379</sup> Anon, ‘Ninurta as God of Wisdom’ on <http://www.gatewaybabylon.com/essays/wisdomninurta.html> consulted 3.1.2007

<sup>380</sup> Winter p.46

theological genesis that correlated particular ‘blessed’ stones for creating statues of specific gods, which would suggest an early concatenation between gods and stones.<sup>381</sup> Pointing out that stones were offered during Mesopotamian coronations with the stated intent of being ‘for the flesh of the gods’, Annus makes the judgement that the Mesopotamian tradition survived in the latter Hermetic one, which would have incorporated Hellenistic Alexandrian works. Early Mesopotamian mythology has other stone lore, Gilgamesh, for instance, meets a wondrous jewel-bearing tree and uses a mysterious stone to gain passage to an imaginal world, motifs that may conceal profound esoteric truths.<sup>382</sup>

According to Geller, the word <sup>kus</sup>*umma* [sic], used in *Lugale*, was a leather pouch containing precious metals and he suggests that the text can be read as saying that at the opening of the pouch in which the stones were kept, Ninurta pronounced their fate. Similarly, in Egypt gold dust and precious stones were kept in small bags.<sup>383</sup> This would suggest that a tradition of keeping stones and other precious objects in a pouch could be a precedent for the bag in which ‘Nectanebo’ kept his stones, and for the Breastplate and containers for psephomancy or clereomancy stones.

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<sup>381</sup> See Annus p.164-167 and Winter p.49.

<sup>382</sup> See Dalley, Stephanie (trans), *Myths from Mesopotamia* (Oxford: Oxford University Press 2000)

<sup>383</sup> Wilkinson, J. Gardner, *The Ancient Egyptians, their life and customs*, (reprinted London: Studio Editions, 1990) p.148.

## The animated universe

We now have to approach the most fundamental concept underlying the stone horoscope, that which is usually referred to as animism. One dictionary defines animism as ‘the theory which refers organized life and its movements to a *separately existing* [my italics] immaterial soul, and holds that all objects possess natural life’, which offers no explanation for the stone horoscope, and another: ‘belief in a supernatural power that organizes and animates the material universe’, which may go some way towards an explanation but still involves separation from the natural world.<sup>384</sup> Cumont states that animism ‘regarded as divinities animals, plants and stones... and believed them to have mysterious relations with mankind’ which provides a rationale for the zodiac-stone concatenation.<sup>385</sup>

According to Abram the mechanistic and determinate modern worldview that regards anything ‘mysterious, powerful and beyond human ken’ as supernatural does not approach the *experience* of an animated universe.<sup>386</sup> As a modern shaman and anthropologist reported, ‘when you ask a Lailea who she is, she’ll tell you: The mountains am I, the river am I, the eagle am I, the rock am I’.<sup>387</sup> Similarly, ‘to the ancient Egyptian, everything has life’.<sup>388</sup> There is identification with the whole as later epitomised in the Gnostic Gospel of Thomas:

I am the All; the All has come forth from me, and the All has attained unto me.

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<sup>384</sup> Dawson, Lawrence H. (ed), *Nuttall’s Everyday Dictionary* (London: Frederick Warne & Co. Ltd. No date given). Catherine Soanes and Angus Stevenson (eds) *Concise Oxford English Dictionary* (Oxford: Oxford University Press 2004 edition). See also Ingold pp.42-47.

<sup>385</sup> Cumont p.10.

<sup>386</sup> Abram p.8

<sup>387</sup> Villoldo, Alberto, *The Four Insights* (Carlsbad: Ca. Hay House, 2006) p.17

<sup>388</sup> Jacq p.14

Cleave a (piece of) wood: I am there. Raise up the stone, and ye shall find me there'.<sup>389</sup>

Guthrie defined animism as 'attributing characteristics of living things (e.g. sentience and spontaneous motion) to inanimate things and events' but in this he too is approaching the ancient world from a modern perspective.<sup>390</sup> Asking for instance 'are *all* stones alive', as one modern anthropologist apparently did, could be posing the wrong question.<sup>391</sup> This is a worldview that may be better perceived as an animated, and participatory, universe.<sup>392</sup> In an animated universe things are not inanimate, life-less or non-sentient, although some substances may at any given moment be quiescent and inert and others aroused and active. *Everything* has life and fluidity and, in Mesopotamia and Egypt, is moved by the gods which takes us nearer to why a stone can stand in the place of a planet and speak. Jacq quotes an early Egyptian text on the origin of precious stones used for magical purposes in which the stones are the initiators of the contact:

Precious stones come to you,  
they float on the wave for you from the interior of the mountains,

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<sup>389</sup> Schoedel, W.R. (trans), *Gnostic Gospel of Thomas* (in course of publication: Brill) Line 77. Translation taken from <http://www.goodnewsinc.net/othbooks/thomas.html> which states 'the following is a fresh translation, made from the Coptic text published by Messrs. Brill of Leiden. In the preparation of this versi the following six translations have been consulted, in addition to be published by Messrs. Brill: English by W. R. Schoedel, French by Doresse and R. Kasser, German by J. Leipoldt and Hans Quecke Danish by S. Giversen. The numbering of the sayings is that of the Brill edition'. The saying is now in common parlance.

<sup>390</sup> Guthrie, Stewart 'Rethinking Animism', *The Journal of the Royal Anthropological Institute*. Vol.7 No. 1 (Mar.2001) pp.156-157. p.157, and see 'Animism', *Catholic Encyclopedia* on <http://www.newadvent.org/cathen/01526a.htm> consulted 11.3.2007

<sup>391</sup> See, for instance, the discussion on animism in Peter Nabokov, *Where the lightning strikes: the lives of American Indian sacred places* (New York: Penguin Books, 2006) [hereinafter Nabokov] p.29ff. Nabokov p.29 refers to the 'are all stones alive' incident but without attributing the Hallowell source.

<sup>392</sup> See Wright p.7 and the discussion in Nabokov p.30-34.

making themselves the protectors of the thickets of papyrus at the leaves of the first door of the necropolis.<sup>393</sup>

In a fourteenth century BCE Caananite mythological text the god speaks through:

Speech of tree and whisper of stone

E'en of the deeps with the stars:

Yea, a thunderbolt unknown to heaven

A word not known to men.<sup>394</sup>

In this metaphysical view, all is one and best approached through anagogic perception, *participation mystique*, or what Abram, speaking from Merleau-Ponty's concept of *flesh*, calls an inherently participatory universe.<sup>395</sup> In Abram's judgement, 'perception always involves, at its most intimate level, the experience of an active interplay, or coupling, between the perceiving body and that which it perceives'. If this judgement is correct, a stone on a horoscopic board would perceive and participate in, and be perceived and participated in, as both planet and querent.

Naydler takes the view that if we treat 'sense-perceptible events in isolation from their mythological components' we 'cut out the living heart of reality', suggesting that 'failure to appreciate the epistemological premises of the ancient Egyptian worldview not only results in our misunderstanding it, it also helps to perpetuate our ignorance of the metaphysical aspects of reality of which they were so

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<sup>393</sup> Jacq p.69 citing Goyon *Rituels* p.49 but no textual identification is given. This imagery has further cosmological significance that cannot be pursued here.

<sup>394</sup> Mendelsohn, Isaac, *Religion of the Ancient Near East* (New York: Liberal Arts Press 1955). The contents of this text are said to be much older than the first written version.

<sup>395</sup> Abram p.5. *Flesh* is a concept that appears to suffer in translation and which Merleau-Ponty did not live long enough to fully develop but see Maurice Merleau-Ponty, *The Visible and the Invisible* (Evanston: Northwestern University Press 1968) [hereinafter Merleau-Ponty] pp.127-129, 132-33, 138-153, and see also Stephen J. Smith 'Gesture, Landscape and Embrace: a phenomenological analysis of elemental motions', *The Indo Pacific Journal of Phenomenology* Vol.6, Edition 1, May 2006 pp.2-10 for a description of *flesh* in phenomenological experience. *Flesh* is perhaps closest to the ancient Egyptian concept of *heka*, See chapter 2 and Merleau-Ponty p.139. This concept would repay further study.

intensely aware, and towards which the limited outlook of naïve empiricism is totally uncomprehending'.<sup>396</sup> If Naydler is correct, it is possible to immerse oneself in tropological perception where a symbol speaks, or to move beyond it into a mystical, anagogical world where a stone *is* a god or a planet and where its placement on a board brings alive a moment in time and graphically portrays cosmic forces at work in a moment of *participation mystique*.<sup>397</sup> This is the divinatory mode of consciousness that the Platonist Iamblichus describes as 'suspended from the Gods, spontaneous and inseparable from them' in which the deepest meaning of a symbol can be penetrated because there is no separation between personal perception and the cosmos.<sup>398</sup> However, when sharing a concept with the uninitiated laity in the form of a client, magicians or astrologers may have used a tangible symbol such as an amulet or planetary stones set out on a board, to induce a tropological experience or an anagogic moment, particularly if the symbol spoke through the astrologer and words were spontaneously uttered that were 'shocking in their truth'.<sup>399</sup> This is the moment when, according to PCM CX, 'a voice speaks': the gods make themselves known. Whether in his manipulations 'Nectanebo' attained this state is debatable, but the tools of his trade could, it can be argued, have been intended to assist the astrologer in moving beyond everyday perception and into a state where he could have been moved by the gods as part of an anagogic and animated cosmos in a magical tradition that stretched back into the depths of pre-historical time.

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<sup>396</sup> Naydler Temple p.25

<sup>397</sup> See the discussion in Greenwood, Dr. Susan, 'The Nature of Magic: an anthropology of consciousness', text of a talk at Treadwells, Covent Garden, May 2005 [hereinafter Greenwood] on [http://www.philhine.org.uk/writings/ess\\_naturemagic.html](http://www.philhine.org.uk/writings/ess_naturemagic.html) consulted 02.05.2006 p.3 citing Levy-Bruhl but no reference given

<sup>398</sup> Iamblichus, *On the Mysteries*, I.III trans. T. Taylor (Frome, Somerset 1999) cited in Voss p.4.

<sup>399</sup> Voss p.4

## Conclusion

*Intrinsic to “esotericism” [is] the doctrine of universal correspondences, living nature, imagination/mediations, and transmutation.*

*Faivre*<sup>400</sup>

As has been demonstrated, the concept of correspondence, fundamental to an esoteric notion of a stone and sky concatenation, was prevalent throughout the ancient world. Hanegraaff, however, warns that assumption of unity and coherence is becoming less tenable as research in esotericism progresses and approaching the overarching question posed at the beginning of this dissertation from different standpoints produces varying answers.<sup>401</sup> When the external perspective of scholars such as Hornung, Assman and Hutton is employed and texts rather than artefacts and symbolic representations are evaluated, the historian finds ‘speculative cosmography’ and little continuity of esoteric tradition. When the internal perspective of Naydler and others is applied and the structure of thought examined, artefacts and iconography are regarded as metaphors for esoteric beliefs, and anagogy and cross-cultural transmission of ancient knowledge, although somewhat modified and reconceptualised over the years, is recognised.<sup>402</sup> In this respect, the work of Hutton, for example, has been extended through identification of symbolic imagery and

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<sup>400</sup> Faivre p.2

<sup>401</sup> Hanegraaff Introduction p.xiv.

<sup>402</sup> See Hutton, Assman, Jan Assman, *Moses the Egyptian* (Cambridge, Mass: Harvard University Press, 1998); Erik Hornung: *The Secret Lore of Egypt: its impact on the West*, trans David Lorton (Ithaca: Cornell University Press 1999); Naydler Temple, Naydler Shamanic, Jeremy Naydler, *On the Divinity of the Gods* (Oxford: Abzu Press 1994); Jeremy Naydler, *Ancient Egypt and the Soul of the West* (Abzu Press: Oxford,1996); Jeremy Naydler, *Plato, Shamanism and Ancient Egypt* (Oxford: Abzu Press, 2005); Jeremy Naydler, *Ancient Egypt and Modern Esotericism* (Oxford: Abzu Press 2006), Randall Styles, *Making Magic: Religion, Magic and Science in the Modern World* (Oxford: Oxford University Press, 2004) [hereinafter Styers].

metapoeic context suggestive of concealed astral timing of rituals in both Egypt and Mesopotamia.

The cultural diversity of the Hellenistic world and its intellectual centre in Alexandria drew together earlier practices from Egypt, Mesopotamia and Judaism and assimilated and reconceptualised esoteric lore from around the empire the roots of which would repay further study. That lore was incorporated into Hellenistic astrology and, although diluted and at times disregarded, can be said to have passed into the modern world as astrological and magical correspondences that still pertain through, for example, the modern notion of birthstones.<sup>403</sup> Such correspondences, whilst appearing to be exoteric and part of popular culture, conceal esoteric origins. The notion that lapis lazuli - sacred to Inanna in Mesopotamia from no later than 3000 BCE and ‘the hair of the god’ in Egypt from around the same time - had a particular affiliation with the planet Venus, and that hematite was linked to Mars, passed into seventeenth century literature as astrological correspondences that still pertain today - although the anagogic ideological narrative that lay behind the notion of correspondence has for the most part been lost.<sup>404</sup>

The origins of lapidarial texts and ritual practices are enmeshed within multiple traditions of the secondary texts and cultures in which they are reproduced and, due to cross cultural fertilisation and syncretism and despite some striking similarities, at this stage it is virtually impossible to say exactly what the individual precedents were for astrological traditions and stone practices in Hellenistic Greece without a more extensive study.<sup>405</sup> In particular early Greek, Mesopotamian and

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<sup>403</sup> See Brill, Alan Richardson, *The Magician's Tables* (London: Hamlyn 2007), and Melody, *Love is in the Earth* (Wheat Ridge, Co: Earth-Love Publishing House) 1995) for examples of modern astro-gemmological correspondences.

<sup>404</sup> Lilly pp.75 and 68. Bills p. 79 and 62

<sup>405</sup> Such a study would require extensive translation of existing scholarly works.

Egyptian lapidaries and pre-Hellenistic magic remain to be thoroughly examined although, as has been shown, there is material suggestive of metaphysical tenets and belief in ‘natural sympathies’ from that era and earlier.<sup>406</sup> Further examination of the cross cultural fertilisation between Indian astrological stone lore and that of Hellenism could also be fruitful, seeking precedents and establishing dating for that tradition, as would extension into Hermetic and Arabic lore. It has, however, despite their ubiquitous citation, ancient and modern, as primary sources been possible to definitively eliminate Pliny and the Breastplate of the High Priest as precedents for a zodiac-stone concatenation.

The question of when and to what extent the irrational was stripped out of astrology, which could be examined in depth, would repay additional study as it may have been religion rather than rationality that, at least partially, suppressed it and its underlying ideological narratives.<sup>407</sup> However, belief in sanctified objects, magical and astrological correspondences and the infusion of stellar influence is tenacious – early Christian magic itself endorsed amulets infused with such virtue - and can be suggested to have passed to initiates as a secret doctrine that, whilst it becomes visible from time to time, came to be regarded by Christianity and Islam not as natural magic but demonic and therefore unacceptable.<sup>408</sup> In late antiquity, Augustine rails against it, Porphyry protests, and, conversely, Iamblichus supports the creation of ‘receptacles’

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<sup>406</sup> See Scarborough p.333 and, for metaphysical tenets, Riffard.

<sup>407</sup> See Hutton *Astral Magic* for a summary of eight hundred years of Christian planetary magic and its Islamic foundations.

<sup>408</sup> See Meyer, Marvin and Richard Smith (eds), *Ancient Christian Magic: Coptic Texts of Ritual Power* (San Francisco: HarperSanFrancisco 1994). This hypothesis would require further research to substantiate but the hypothesis is supported, so far astrological texts are concerned, by Lilly, and, where magical correspondences are concerned, by Alan Richardson in personal correspondence regarding his forthcoming book: *The Magician's Tables*. Richardson's perspective is that of an internal practitioner and researcher.

from stones with ‘intimate affiliations with the gods invoked’.<sup>409</sup> At least one Iamblichean ritual is suggested to have been taken directly from an ancient Egyptian act of astral magic and Hermetic astrology and Neoplatonism preserved esoteric notions that, despite and in some cases because of, the conflict between paganism, Christianity and Islam, continued at least into the Middle Ages.<sup>410</sup> In 1326 a Papal Bull was issued to stamp out the practice of planetary magic, implying that it was still popular.<sup>411</sup> In Islam, according to Zoller, an exposition of Islamic magical teaching by the fourteenth century historian Ibn Khaldun, listing extant ‘Chaldean books’, attested to continuing belief that ‘spirituality of the stars’ could be used for magical influence despite, in the ninth century, Al-Kindi having attempted to find a rational Aristotelian explanation for previously unexplained phenomenon.<sup>412</sup> Medieval lapidaries like that of King Alfonso and texts such as Aquinas, Magnus and Agrippa demonstrate continuity in the belief that stones have virtues and effects and can be irradiated by the stars.<sup>413</sup>

It could be argued that virtually all cultures have sought to control, suppress or manipulate the irrational in one way or another but belief in the irrational is enduring. A century ago Victorian occult practices reflected ‘a modern sensibility that remained immured in and fascinated by the performance of the irrational even as it

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<sup>409</sup> See St Augustine, *Confessions*, trans R.S. Pine-Coffin (London: Penguin, 1961) and *City of God* p.389, Gregory Shaw, *Theurgy and the Soul: The Neoplatonism of Iamblichus* (Pennsylvania: Pennsylvania State University Press, 1995) [hereinafter Shaw], see p 167 and p.47

<sup>410</sup> Phillippe Derchain, ‘Pseudo-Jamblique ou Abammon’, *Chronique d’Egypte*, 38 (1963): 220-26 cited by Shaw.

<sup>411</sup> See Dodds, E.R., ‘Theurgy and Its Relationship to Neoplatonism’, *The Journal of Roman Studies*, Vol.37, Parts 1 and 2 (1947) pp.55-69 p.64 and Hutton *Astral Magic* p.17.

<sup>412</sup> See Zoller, Robert (trans), and Robert Hand (ed), *Al-Kindi On the Stellar Rays* (Berekeley Springs, Ca: Project Hindsight, Latin Track, Vol.1, The Golden Hind Press, 1993) pp.xiv and xiv-xix.

<sup>413</sup> See Alfonso Lapidary and Wyckoff, Evans *Medieval Lapidaries* and Donald Tyson (ed) and James Freake (trans), *Three Books of Occult Philosophy written by Henry Cornelius Agrippa of Nettesheim* (St Paul, MN: Llewellyn Publications 2004)

sought to measure, understand, and to some extent control or manipulate it'.<sup>414</sup>

Googling 'birthstones' reveals 103,000 websites offering information on this modern remnant of esoteric zodiac-stone lore, and Amazon lists 1436 birthstone titles which, even allowing for duplication, suggests continuing popular interest.

In establishing provenance for 'Nectanebo', it has been shown that scholars appear to have overlooked the discrepancy in the dates of Alexander's birth and the departure of the historical Nectanebo from Egypt. The use of the name is, however, in keeping with the esoteric practise of lending authority to a text by appending a 'mystical name'. A potential link between material from Qumran and other ancient astrological texts and the election of Alexander's birth has also been identified and would repay further scrutiny.

As far as the specific question posed with regard to the *Alexander Romance* is concerned, archaic ideological narratives and ancient traditions concatenating sky and stones can be seen to be embedded, but an actual astrological practice is more difficult to substantiate, partially due to disputation over the commencement of horoscopic astrology. Notwithstanding, as has been demonstrated, there is material suggestive of a proto-horoscopic astrological system at the time of Alexander's birth and Hellenistic astrology was certainly in place when the novel was first attested. Additional boards to those indicated by Evans have been identified, suggesting that they may have been in more common use than previously supposed. That astrological readings form part of the earliest portions of the *Romance* – within a century of Alexander's death – suggest that there may have been a system of horoscopic astrology earlier than is

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<sup>414</sup> Owen, Alex, 'Occultism and the 'Modern' Self in *Fin-de-Siecle* Britain, ' cited in Martin Daunton and Bernhard Rieger (eds), *Meanings of Modernity, Britain from the late Victorian Era to World War II* (Oxford: Berg, 2001) 71-96, particularly 73-74, 88, cited in Styers p.19. Styers also cites Pamela Thurschwell, *Literature, Technology and Magical Thinking, 1880-1920* (Cambridge: Cambridge University Press, 2001) in the same reference.

generally accepted. This study has identified what may be a lost fragment of Petosiris and Nechepso in a demotic papyrus concatenating stones and planets, earlier artefacts and texts providing precedents and, judging from later citations, the novel itself became a precedent for zodiac-stone lore.

If Riffard's trans-historical tests are applied, mythical origins, chains of initiation, secret books, mystical names, anagogic translation and magical usage have been shown to have been part of the rationale that underlay the stone and planet affiliations in the *Romance* and later astrological and magical correspondences.<sup>415</sup> Regardless of the age and authenticity of the practice described in the *Romance*, therefore, rather than stripping astrology of its esoterica, in concatenating stones and planets the authors of the *Romance* and the demotic papyri and Hellenistic writers such as Valens and Manilius can be said to have perpetuated correspondences that formed part of a continuing tradition of esoteric lore, suggesting that Riffard's hypothesis of concordances between the esoteric ideas of different cultures may be correct.

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<sup>415</sup> Hanegraaff p.25

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