

Nicholas Campion
The Golden Age of Astrology
Chapter 2 (not published)
Islam: the Struggle of Reason and Faith
9231 words

In the name of God, Most Gracious, Most Merciful

1. Say: I seek refuge
 With the Lord of the Dawn,
 2. From the mischief
 Of created things;

*One skilful in this Science may evade many effects of the Stars, when he knows their Natures,
 and diligently prepares himself to receive their effects.¹*

Medieval Islam was noted for its toleration of other faiths, in part drawn from its respect for any religion with a sacred text. In this regard, it was welcomed by many who suffered from the dogmatic inflexibility of the Roman emperors, not to mention their penchant for excessive taxation. While it is well known that such liberalism extended to Jews and Christians, the planet-worshipping Sabians of Harran, in northern Syria, who were incorporated into the Islamic realm in 640, were later also included on the grounds that their prophet was Hermes and their scripture was the *Corpus Hermeticum*.² Remarkably, then, astral theology was given official sanction by the political authorities..³

The theologically safe position for any Islamic astrologer was to explore the unfolding of God's divine plan, and avoid any interference in it which might second-guess his right to control the future. Sura CXIII, 1-4, for example, warns against the dark arts: 'Seek refuge With the Lord of the Dawn, from the mischief of created things; from the mischief of darkness as it overspreads; from the mischief of those who practise secret arts'. Simply, only God can know the future. Like the Christian and Jewish Gods, though, their Islamic counterpart spoke in signs. The Arabic for cosmos, *'âlam*, shares a root with both *'ilm* (knowledge) and *'alâma* (sign, mark). Cosmos, in Arabic can therefore be understood as the means by which one obtains knowledge, particularly knowledge of God, a position very close to the Platonic view. The world, or

1 Ptolemy, Claudius, 'Centiloquium', para 5, in Partridge, John, *Mikropanastron*, London, 1679.

2 Pingree, David, 'The Sabians of Harran and the Classical Tradition', *International Journal of the Classical Tradition*, Vol. 9, no 1, Summer 2002, pp. 22-3; Green, Tamara, *The City of the Moon God: Religious Traditions of Harran*, Leiden: Brill, 1992.

3 For general information on much of what follows see the article on Islamic Cosmology in Hetherington, Norris D., *The Encyclopaedia of Cosmology: Historical, Philosophical and Scientific Foundations of Modern Cosmology*, New York 1993, pp. 322-329 and Steele, John M., *A Brief Introduction to Astronomy in the Middle East*, London: Saqi Books, 2008. For Islamic philosophy in general see Fakhry, Majid, *A History of Islamic Philosophy*, New York: Columbia University Press 1983. For Islamic cosmology in general and Neoplatonism in particular see Nasr, Seyyed Hossein, *An Introduction to Islamic Cosmological Doctrines*, New York: State University of New York Press 1993. For biographical details of the astrologers of the Islamic world see Rosenfeld, Boris A., Ekmeleddin Ihsanoglu, *Mathematicians, astronomers, and other scholars of Islamic civilisation and their works (7th - 19th C.)*, Istanbul: Research Centre for Islamic History, Art and Culture, 2003.

everything other than God, is therefore a means for God to speak to humanity, and all natural phenomena are therefore signs, *âyat*, of the divine. Astrology itself was known as *Ahkam al-Nudium*, literally, the decrees of the stars. Even human actions may be read as divine omens. As Surah XV 73-7 warned, 'And we turned (the Cities) upside down, and rained down on them brimstones hard as baked clay. Behold! In this are signs for those who by tokens do understand...Behold! In this is a sign for those who believe'. The divine message, of course, is that God cannot be resisted, and those who mistakenly try will be destroyed by his armies. Surah XV1.49, reinforcing similar texts in the Old Testament, warns all living things, including the angels, to bow down before God. For those Islamic Platonists who were to come later, the stars and planets, being alive, were also subject to this command. Surah X.101 does seem to promise wisdom from the stars, but only for the true believers. Of course, it would be a matter of individual judgement whether this wisdom could, or should, be derived from the casting of horoscopes, rather than the simple contemplation of God's splendour. Even Surah 85, which is titled 'Al-Buruj', the Zodiac, has nothing explicit to offer astrologers who might be looking for divine approval, being more concerned with the wonder of God's creation than any technical means of reading his signs. For the devout, then, that astrology, with all its complexities, was essentially redundant. As the preamble to Surah XLV reads, 'The Signs of God are everywhere: His power, wisdom and goodness are shown through all Creation and in Revelation'. In other words, the pious believer has no need of anything other than simple faith. The tensions opened by the Islamic encounter with astrology were therefore very similar to those faced by Christianity: there can be no other source of authority but God and the development of learning as a whole was thus faced with the constant dilemma that any search of natural causes can seem to detract from God's ability to intervene spontaneously in any level of existence as, and when, he wishes.

A strictly Islamic cosmology naturally required the faithful to live in harmony with the stars, these being such a dramatic indication of the wonder of God's creation; human beings might not be able to tell the future through the stars, but they should be guided by them. A general knowledge of the heavens without any particular knowledge of geometrical models and mathematical calculations was considered an accessory of the devout lifestyle.⁴ This generated a market for learned treatises which, from the eighth century, were compiled across the Islamic world, from Spain to central Asia. A typical text included such information as the sun's passage through the twelve zodiac signs, associated meteorological information, lunar phases, the moon's location in the twenty-eight lunar mansions, the rising and setting of prominent stars through the year and the direction of winds. Such material could then be distilled into almanacs of which the best-known representative, the tenth century *Calendar of Cordova*, was arranged for the lunar year. Observation of the moon itself was vital, for the month, and therefore the entire religious calendar, was based on the first observation of the rising crescent new moon. The daily prayer cycle was tied to the sun with five critical moments: sunset, nightfall, daybreak (to be completed by sunrise), shortly after midday, and, almost impossible to calculate, the time when the shadow of any object has increased beyond its midday minimum by the length of the object. The notion of correct orientation in space, important in all religious traditions,

4 For this and the following paragraph see King, David, 'Folk-Astronomy in the Service of Religion: The Case of Islam', in Ruggles, Clive and Nicholas Saunders, *Astronomies and Cultures*, Niwot, Colorado: University Press of Colorado 1993, pp. 124-138.

also became much more complex due to the importance of the *qibla*, the direction from any location in the world to the Kaaba, the massive cubic granite building which sits at the centre of the mosque in Mecca. Prayer, ritual sacrifice and burial were all to be conducted facing in the *qibla* while other acts, such as performing bodily functions should, the rules stated, be perpendicular to it. Knowledge of where, exactly, the *qibla*, lies, is of crucial importance for the pious Muslim. On a spherical planet, though, the *qibla* is exceptionally difficult to locate - there may be more than one candidate, and the rising and setting of the sun, stars and the direction of the winds might all be used. The Kaaba itself, which was a pagan shrine before being appropriated by Mohammed, may have been constructed to align with the rising of the fixed star Canopus, the summer sunrise, midwinter sunset and the southernmost midwinter moonset, which brings it into the archaic tradition of megalithic culture. It has also been suggested that the whole of pre-Islamic Mecca was aligned, following the Kaaba, with the spring equinox.⁵ Islamic cosmology was unambiguously heir to an ancient tradition in which human life was designed to correspond to the celestial realms.

SHOULD THIS GO EARLIER OR FIRST SENTENCE BE REWRITTEN? HAVE SPOKEN ABOUT BOTH IN CHAP 1, SO COORDINATE. Abu Ma'shar was supposedly introduced to astrology by Al Kindi, a scholar whose honorific title, the 'first philosopher', points to his reputation as the man who introduced classical Greek thought to the Islamic world. Al Kindi was born to an aristocratic family in the city of Kufah, which was distinguished as a centre for Arab learning and culture, sometime around 795. In his long life - he died sometime between 866 and 870 - he became, through his prolific writings perhaps the seminar figure in the development of Islamic intellectual thought. His self-appointed task was to reconcile Islam with Hellenistic science, in essence the same problem faced by many Christian intellectuals: how to reconcile Islam, a system of faith which has claims to absolute truth, but says little or nothing about the way the world works, with systems which talk about the way the world works but originate outside the particular faith-based system. Central to Islamic cosmology was the Tawhid, a doctrine which emphasised the one-ness of God, from which flowed the wholeness of wisdom. The philosopher's role was therefore to gather all wisdom into intellectual synthesis which could complement the religious revelation in the Koran. Scholars who were sympathetic to astrology included it as legitimate part of the intellectual programme arising from the Tawhid.⁶ But then, of course, as Ibn Khaldun was to demonstrate, one could accept a certain part of astrology, the notion of general planetary influences, but reject the concept that detailed prognostications might be made about an individual's life on the basis of their birth. It was al-Kindi who began the process of assimilating Neoplatonic and Aristotelian thought into Islamic thought translating Aristotle and Plotinus from Greek into Arabic. He was largely responsible for introducing the Islamic world to the notion that there are two paths to truth, on the one hand, faith and, on the other,

⁵ Allawi, Ibrahim, 'Some Evolutionary and Cosmological Aspects to Early Islamic Town Planning' in Margaret Bentley Sevcenko (ed.), *Theories and Principles of Design in the Architecture of Islamic Societies*, Cambridge, Massachusetts: Aga Khan Program for Islamic Architecture 1988, p. 58.

⁶ See Corbin, Henry, *History of Islamic Philosophy*, trans. Liadain Sherrard and Philip Sherrard, London; Kegan Paul International in association with Islamic Publications for The Institute of Ismaili Studies, 1993.

reason. On perfectly good political and theological grounds, perhaps to do with the safety of his eternal soul, though, al-Kindi emphasised the primary of the former over the latter: if there was to be a dispute between God and Aristotle, God won every time. The tension between these paths to truth was evident in the works of al-Biruni, who opened one of his astrological treatises with an appeal to God, followed by the following trenchant statement: ‘The duty of the servant of science is not to differentiate among its kinds... Rather he should know that science is good in itself’.⁷

Al Kindi’s distinguished philosophical record was rewarded with the highest recognition. He has been described as court astrologer (though of course there was no such official position) to the Caliph al-Mamun and headed the team in the House of Wisdom which translated Greek works into Arabic. He was a synthesiser and he set out, on the basis of his readings of Aristotelian and Platonic theories, to provide a universal model, the sort of key-to-everything for which cosmologists are still searching. In *On the Stellar Rays* he attempted to identify a mechanism by which the heavens might influence the earth through rays of cosmic sympathy.⁸ The logic was fairly straightforward: all visible objects emit rays, otherwise, obviously, they’d be invisible. The notion of rays was to be part of astrologers’ explanatory vocabulary. It was believed that each planet’s rays extended a different number of degrees over the zodiac and if, to take one example, a planet was too close to the rays one of the unfortunate planets, such as Mars or Saturn, the individual concerned would suffer ill-fortune.⁹ It was as if the light itself carried the nature of the planet. These rays can be seen as causal connections as long as it is remembered that all causal links in the world around us are, in fact, co-ordinated by rays emitting from the ‘One’, God. While Al Kindi’s ideas play a part in the history of optics, we should always remember that he was working in the context of Hermetic teachings, in which light carries divinity: it does not just allow us to see, but enables us to be close to God.¹⁰

In this model, lies the source of a certain attitude to free-will. The wise man cannot escape his fate but, by modulating his relationship with the descending rays, he can, like a Stoic, become inwardly free of it. Such a model has the advantage of combining Aristotelian celestial mechanics with the Koran, and Stoic determinism with Islam, in such a way as to preserve God’s pre-eminence. It also, happily for the Islamic authorities, enrolled classical cosmology in the service of religion, providing a mechanism - stellar rays - by which God’s will might be enforced while the individual responsibility for moral actions. Nobody can evade divine wrath by blaming the stars for their immoral acts.

7 Al-Biruni, *On the Motion of the Two Lots*, in f.85v.4-5, trans Edward S. Kennedy, as ‘Al-Biruni’s Treatise on Astrological Lots’, in Kennedy, Edward .S. *Astronomy and Astrology in the Medieval Islamic World*, Aldershot: Ashgate, 1998.

8 Al Kindi, *On the Stellar Rays*, trans. Robert Zoller, Berkeley VA: Project Hindsight, The Golden Hind Press 1993.

9 Abu Ma’shar, *The Abbreviation of the Introduction to Astrology, Together with the Medieval Latin Translation of Adelard of Bath*, edited and translated by Charles Burnett, Keiji Yamamoto and Michio Yano, Leiden, New York and Koln: E.J. Brill, 1994, 4.15, p. 55.

10 See the discussion in Fakhry, Majid, *A History of Islamic Philosophy*, New York: Columbia University Press, 1983, pp. 298-301.

Stoicism, the most deterministic of classical philosophies, was formalised in Islamic astrological thought in the tenth century by the Ahmet Abu Ja'far in his *Kitab al-Thamara* or *Book of the Fruit*. This book achieved huge fame and prestige in Europe because it was mistakenly ascribed to Claudius Ptolemy, the fount of authority on all Greek astrology and astronomy. The English translation of 1679 records the spirit of Abu Ja'far's cosmology with the following words: '*Sapiens*, a wise Man doth Co-operate with the Coelestial Operations, and doth assist Nature, as the Husbandman in the ploughing and preparing his Ground'.¹¹ The simpler formula is 'the wise man rules his stars, the fool obeys them' or, as one sixteenth-century English version had it, 'One skilful in this Science may evade many effects of the Stars, when he knows their Natures, and diligently prepares himself to receive their effects'.¹² Or, as the Corpus Hermeticum put it, 'Those men who are devoid of mind are merely led along in the train of Destiny'.¹³

The surviving Arabic astrological texts should all be read within this context, in which personal and political success lay in the choice to freely co-operate with the cosmos. For example the *The Judgement of Nativities*, which dealt with the analysis of personal birth-charts and was composed by Masha'allah's student, Abu 'Ali Al-Khayyat, is best understood in a Neoplatonic or Stoic context. To be sure, its mathematical precision was most impressive. For the 'causes and occasions of death,' we are told, the astrologer should examine the horoscope (ascendant) and its lord, the part of death and its lord, the fourth house and its lord, any planets in that house and their lords, and planets that aspect those planets and their lords, followed by 'the lord of the Triplicity of the Angle of Earth and the lord of the 7th house, and the 8th sign from the sun and the Moon and their lords'.¹⁴ Although the way in which such rules were stated gives the appearance of an absolute, meticulous, absolute determinism, based on a rigid series of precise mathematical divisions of the universe, and of the individual's material and spiritual existence, and allowing no room whatsoever from deviation from a pre-set pattern, such crude Pythagoreanism was, in practice, virtually impossible to implement. By the time the astrologer had considered the lord of the horoscope in terms of, typically, five different considerations based on its location in

11 Partridge, John, 1679. *Mikropanastron, or an Astrological Vade Mecum, briefly Teaching the whole Art of Astrology - viz., Questions, Nativities, with all its parts, and the whole Doctrine of Elections never so comprised nor compiled before, &c.* William Bromwich: London., pp 305-6.

12 Ptolemy, Claudius, 'Centiloquium', para 5, in John Partridge. 1679. *Mikropanastron, or an Astrological Vade Mecum, briefly Teaching the whole Art of Astrology - viz., Questions, Nativities, with all its parts, and the whole Doctrine of Elections never so comprised nor compiled before, &c.* William Bromwich: London., pp 305– 321. The Centiloquium was known in Arabic as the *Kitab al-Thamara* (Book of the Fruit) and was ascribed to Claudius Ptolemy although the author is currently believed to have been Ahmet Abu Ja'far (c.944) or Abugafarus. For discussion see See Richard Lemay, 'Origin & success of the Kitab Thamara of Abu Ja'far Ahmad ibn Yusuf (ibn Ibrahim)' in *Proceedings of the first International Symposium for the History of Arabic Science*, University of Aleppo (1976), Aleppo, 1978. On account of its supposed authorship by Ptolemy, the Centiloquium was an authoritative text in European cosmology until the seventeenth century.

13 *Hermetica* Fragment 19, Scott, p 539.

14 Abu 'Ali Al-Khayyat, *The Judgement of Nativities*, trans James H. Holden, Tempe, Arizona: American Federation of Astrologers, 1988, chap. 27.

the zodiac, examined the planets that ruled each of those five considerations, looked at the aspects both the original planet and its five rulers made, and then been through the same procedure for all the other planets and planetary lords, he would find it impossible to come to any sort of conclusion based on the astrology alone. The key, perhaps, lies in the continuing use of terminology such as 'lord'. The deities of the Babylonian sky were alive and well and their divine wishes were still mediated through the sort of celestial order which had been apparent to the compilers of the cuneiform texts, even if that order was now a matter of the infinitely complicated mathematical formulae. So great were the complexities that there was rarely any chance of any astrologer reaching a verdict on the basis of the rules alone. Instead a large dose of subjective evaluation was required, and a single horoscope could be subject to completely different readings.¹⁵ The realisation that this was so, reinforced another consequence of Platonic thought, the scepticism which doubted that it was possible to make any absolutely true statement on the basis of information gleaned from the material world. In a world of constant change, it was reasoned, all information was both local to a particular place and specific to a precise time, and so was destined to be unreliable. As soon as any kind of statement was made on the basis of empirical evidence, the evidence had changed, and the statement could no longer be true. The solution was obvious: all human truth was provisional and only God, who sees and knows everything, can accurately predict the future.¹⁶

The formula was codified by Abu Ja'far in the *Centiloquium*, from where it was to become the ideological basis of practical astrology in the Islamic world - and in the Christian west from the twelfth to seventeenth centuries. In one sixteenth century version, an English rendition of a Latin translation, the first paragraph insisted that 'it is impossible that the Artist should foresee the particular Idea of things; neither can Sense receive a particular, but a general notion of the sensible matter; wherefore he ought in these things to use Conjecture, for none but one inspired, can predict particulars'.¹⁷ In other words, the appearance of precision in a work like *The Judgement of Nativities* was a mirage: the astrologer's inability to speak the absolute truth, let alone reconcile the internal contradictions which would inevitably arise from such complex rules, required that personal judgement must over-rule technical determinism. Astrology alone, without divine intervention, can only identify future trends, and point to possibilities which may or may not come to pass. The *Centiloquium* continued with two other pieces of classic Neoplatonism, one to be expected, the other radical in its implications. The first was that the horoscope always derives from a question in the astrologer's mind ('what is this child's fate?', 'what is the

15 See the discussion of late classical astrology in Campion, Nicholas, 'The Possible Survival of Babylonian Astrology in the Fifth Century CE: a discussion of historical sources', in Oestmann, Günther, H.K. von Stuckrad, and D. Rutkin (eds.), *Horoscopes and Public Spheres: Essays on the History of Astrology*, Berlin and New York: Walter de Gruyter 2005, pp. 69-92.

16 For example, Surah XXVII, v 65: 'None in the heavens or on earth, except God knows what is hidden'.

17 Ptolemy, Claudius, 'Centiloquium', para 1, in Partridge, John, *Mikropanastron*, London, 1679. The date and authorship of the Centoloquium is disputed. It has been attributed to Abu Ja'far but the first authenticated reference is the commentary on it by Ahmed ibn Yusuf al-Misri (835-912).

outcome of this enterprise?') which itself originates in a Platonic Idea.¹⁸ That is, the astrologer is connected to the Nous, God perceived as a supreme mind, the Cosmos as consciousness. The second was that, if all things are connected by a web of sympathies then so are astrologers and both their clients and topic of inquiry.¹⁹ If an astrologer is engaged in a historical inquiry, as was Mash'allah, then his own horoscope should contain some of the same patterns as he might expect to find in his historical examples and, if a client with a Saturnine problem visits an astrologer then, according to the theory, that astrologer should have similar configurations in his horoscope. The astrological inquiry itself, is then embedded in a larger astrological process and the encounter between astrologer, question and client is always purposeful and redolent with meaning.

Amongst those texts from the Islamic world which were to form the centrepiece of later astrological thought, the shortest, and perhaps most influential, was known in the west as the *Tabula Smaragdina*, or Emerald Tablet.²⁰ Originally, it was part of a longer text, the *Kitab Sirr al-Asar*, a respected book of advice to kings probably written about the year 800 and attributed to Aristotle, at least in its later, Latin version, the *Secreta Secretorum*.²¹ Some authorities have thought it may have been written in the year 650, or even 400, and include influences from as far east as China. Legend records that it was originally composed by Hermes himself and later discovered by Sara, wife of Abraham, the Hebrew patriarch. According to the story, when the tablet was found, it was clutched in the hands of the corpse of Hermes himself. The tablet's crucial lines 'That which is above is from that which is below, and that which is below is from that which is above, working the miracles of one, 'As all things were from one', are cited to this day as a rationale for astrology in the simplified form 'as above, so below' - as in the sky so on earth. A popular series of astrology books in the 1970s were even marketed under this title.²²

The Emerald tablet provided the rationale for alchemy, one of astrology's most practical applications. The physical process involved in alchemical work was typically the attempt to transmute lead into gold, but the real goal was union with the divine, of which the gold was the material embodiment. Alchemy may, on occasion, have appealed to greed, but it was essentially a means of engineering the soul's union with the One, or the stars, if one prefers, and provided an alternative to other means, including ritual magic or scholarly enlightenment. In this sense, it is comparable to yoga, as what Micea Eliade called a technique for the escape from time, or 'halting

18 Ptolemy, Claudius, 'Centiloquium', para 2, in Partridge, *Mikropanastron*: 'When he that asketh a Question, shall better consider it, he shall find that there is but little difference between the thing sought, and the Idea thereof in the Mind'.

19 Ptolemy, Claudius, 'Centiloquium', para 3, in Partridge, *Mikropanastron*: 'He that is desirous to study any Art, hath in his Nativity without doubt some Star of the same Nature very well fortified'.

20 Holmyard, E.J., *Alchemy*, Harmondsworth: Penguin Books, 1957.

21 Aristotle, *Secreta Secretorum*, New York: Da Capo, 1970.

22 Oken, Alan, *As Above, So Below: A primary guide to astrological awareness*, New York: Bantam Books, 1973.

the temporal flux': by working with time and matter one eventually transcends it.²³ The first great Islamic exponent was the legendary Jabir ibn Hayyan (721-c.815), known to Medieval Europeans, for whom he was the great master, as Geber.²⁴ Alchemy's cosmological context was provided by the relationship between metals and planets, so the chemical process could only take place in collaboration with the heavenly bodies.²⁵ The alchemist took the theory of correspondence, or sympathies, and set out to manipulate it for the common good, chiefly through medicine.

However, the true radical significance of the Emerald Tablet's words is the first part of the phrase, 'That which is above is from that which is below'. In other words, events here on earth shape the heavens as much as those in heaven influence the earth. These words, almost completely forgotten by historians of ideas, hold the key to centuries of scientific and intellectual endeavour in the Islamic and, later, the Christian worlds. They are the philosophical foundation of the magical tradition and the assumption that human action, carried out in the right spirit, can affect the heavens in a physical sense and, in spiritual terms, can feed back to the One, to the Creator. Not only can humanity shape the cosmos but, if the attempt is successful, it becomes a path straight back to God. Indeed, the practice of magic could be seen as an absolute requirement of the true seeker after salvation. This was not new, of course. The Emerald Tablet's sentiments echo those of the Babylonian *Diviners Manual*, which held that 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'.²⁶ The phrase survived into the sixteenth century, when the astronomer Tycho Brahe adopted the motto 'By looking up I understand what is below',²⁷ and the twentieth century: a recent introductory text defined astrology as 'the experience and interpretation of correspondence between the natural and human worlds below and the heavens above'.²⁸ The Tablet's magical implications were a restatement of the fourth century Neoplatonic philosopher Iamblichus' 'theurgy', his god-work, in which ritual magic, correctly times and cosmically sanctioned, was a path to the divine.²⁹ The Emerald Tablet provided a simple slogan, one as effective as 'workers of the world unite' was to be in the nineteenth and twentieth centuries, one which reminded astrologers of their revolutionary purpose. If Marx said that the

²³ Eliade, Mircea, 'Time and Eternity in Indian Thought', in Prasad, Hari Shankar, *Time in Indian Philosophy*, Delhi: Sri Satguru Publications, 1992, p. 195.

²⁴ See Holmyard, *Alchemy*, pp. 131-8.

²⁵ The correspondences were: the Sun-gold, the Moon-silver, Mercury-mercury, Venus-copper, Mars-iron, Jupiter-tin and Saturn-lead.

²⁶ Oppenheim 1974: 204.

²⁷ Gingerich, Owen, 'Reflections on the role of archaeoastronomy in the history of astronomy' in A.F. Aveni (ed), *World Archaeoastronomy*, pp 4-44, Cambridge: Cambridge University Press 1989, p. 40.

²⁸ Cornelius, Geoffrey, Maggie Hyde, and Chris Webster, *Astrology for Beginners*, Cambridge: Icon Books 1995, p. 3.

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philosopher's purpose is not to interpret the world but to change it, the Neoplatonic and Hermetic scholars of the Islamic world certainly agreed.³⁰

The astrologer was therefore very far from being a disinterested observer, a detached practitioner capable of giving neutral, objective advice, even if that was what his patrons required. He was, instead, an integral part of the cosmic process capable, on account of his own relationship to that process, of discerning variations in the divine plan and offering helpful advice concerning possible future developments.³¹ In spite of the astrologers' constant genuflection to Allah, there is a clear sense in which they constituted an alternative, clearly Gnostic, priesthood which offered practical advice based on direct knowledge of the heavens. All Imams and Mullahs could do was insist that only God could know the future, an essentially useless proposition for people who need to know what, precisely, was about to happen. Astrologers, on the other hand, could offer precisely this kind of practical service.

There was, to be sure, Islamic condemnation of astrology. Both Al-Farabi and Avicenna criticised astrology on the grounds that only God can know the future. Attitudes to astrology appear to have been caught up in general attitudes to 'foreign' learning, specifically the philosophies and sciences emanating from the Hellenistic world.³² The association of astrology with Greek philosophy was made from the very beginning by Abu Ma'shar, who justified his practice according to Aristotelian cosmology, with its system of celestial influences. The consequence, though, was that those who opposed foreign knowledge on the grounds that it diluted the truth of the Koran, were hostile to astrology, which was often identified with schismatics, such as Shi-ites or, worse, with atheism. The caliph Al-Mutawakkil (847-61), a nephew of the enlightened al-Mamun, is even thought to have closed the House of Wisdom in order to deliberately curtail the import of suspect, alien ideas.

One classic conservative theological attack on astrology survives from five hundred years after Masha'allah. Abu Ma'shar and Abu Ali Al-Khayyat, yet could have been written in their time, or earlier. The famous fourteenth century Damascene theologian Ibn Taymiyya (d. 1328) issued three fatwas on astrology forbidding its practice on the grounds of both its religious lawfulness and scientific soundness, on both of which grounds it failed. The combination of theoretical and empirical argument – astrology is both impossible and, anyway, it doesn't work – is derived, like all such critiques down to the present day, from Cicero's first century attack on the subject, *De Divinatione*.³³ However, the anti-astrology argument contains two major flaws. First, the insistence on the use of empirical evidence, of which the classic examples were the 'twins problem' (how is that twins can have different lives if they have the same

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31 Ptolemy, Claudius, 'Centiloquium', para 4, in Partridge, *Mikropanastron*: 'The Mind naturally inclined to any Science, he attains to more perfection therein, than one that shall take hard pains and labour in study to attain it'.

32 See the discussion in Saliba, George. "The Role of the Astrologer in Medieval Islamic Society," in Savage-Smith, Emilie (ed.) *Magic and Divination in Early Islam*, Abingdon: Ashgate, 2004, p. 347.

33 Cicero, *De Divinatione*, trans. W.A.Falconer, Cambridge Mass: Harvard University Press., London, 1929. See the discussion in Campion, *Dawn*, chap 12.

horoscope?) and the question of precession of the equinoxes (the slippage of constellations in relation to the signs of the zodiac, meaning that a horoscope cannot be cast with confidence) requires the use of reason as a support to faith. The devout anti-astrologer is then perilously led close to the dangerous proposition that empirical evidence and rational argument is as potent a path to the truth as is simple reliance on the Koran. Second, no anti-astrology position could be free from the one or the other of the prevailing cosmologies, one which acknowledged that God could speak through celestial signs, and the other which, following Aristotle, acknowledged the reality of celestial influences. Nobody who followed scripture could deny the reality of heavenly omens and no-one who saw the Moon's relationship with the tides, or felt the heat of the sun, could challenge the possibility of celestial influence. Even Ibn Taymiyya accepted the planets' Aristotelian role as secondary causes, transmitting higher influences to the humanity. The best model by which we can understand this problem is by distinguishing what we would now call judicial astrology – the use of horoscopes to make precise predictions – from natural astrology – the acceptance of the existence of general celestial influences. There could never be, then, in Islam, any more than there was to be in Christianity, a simple anti-astrology position. Instead, there was a complex narrative in which those who attacked astrology meant only the use of horoscopes to make detailed statements about individual lives or to plan the future, and, if they cared to mention it, magic. However, uses of astrology based on general planetary cycles or influences, which implied both political and medical applications, tended to be accepted. Exactly the same overlapping uncertainties occurred throughout Christian theology until the seventeenth century.

A typical example of the problem of the anti-astrology case was provided by Ibn Khaldun's fourteenth century work, the *Muqaddimah*, a comprehensive history of the world based upon a Platonic cyclical scheme in which empires and societies were destined to rise and fall in line with underlying patterns. Like Plato, Ibn Khaldun argued that the historical process might benefit from sensible lifestyle choices, including religious faith, but suffer from stupid behaviour, under which he included astrology.³⁴ Ibn Khaldun considered both of astrology's philosophical rationales, whether as a supernatural, divinatory art, or as a practical application of Aristotelian celestial influences, and contemptuously dismissed them.³⁵ Neither could explain, he argued, how astrologers could make precise statements about people's lives, let alone the future. Yet Ibn Khaldun was a man of his time, and it was impossible for any scholar to dismiss astrology completely. For Ibn Khaldun, the exception to the rule was provided by the relationship between Jupiter-Saturn conjunctions and long-term historical trends, perhaps because these confirmed his own belief in the fluctuating fortunes of states. His opposition to astrology was not absolute, and it was the personal relationship between astrologer and client that aroused his righteous anger. With no mechanical or ideological rationale to sustain the doctrine of nativities, there was nothing left to explain its popularity except human gullibility. To be interested in the future, he conceded, was a perfectly natural human trait, but his description of the activities of the diviners in general (in addition to astrologers) and their clients was not exactly flattering:

34 See the discussion in Al-Azmeh, *Ibn Khaldun*, London: Routledge, 1990.

35 Ibn-Khaldun, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal, London: Routledge and Kegan Paul 1987, 1.6, p. 87.

In the towns we find a group of people who try to make a living out of predicting the future, because they realise that the people are most eager to know it. Therefore, they set themselves up in the streets and in shops and offer thmeseves to those who (wish to) consult them. All day long, woman and children of the town and, indeed, many weak-minded men as well, come and ask them, how it will affect their business, their rank, their friendships, their enmities, and smiliar things. There are those who make their predictions by writing on sand (geomancy), those who cast pebbles and grains (of wheat), and those who look into mirrors and into water. These things are very common in cities, and their reprehensible character is established by the religious law.³⁶

Astrology's ultimate deficiency, Ibn Khaldun concluded, was its dependence on conjecture and guesswork. The rules were just too complex, and frequently too contradictory, for any astrologer to pretend that any judgment could be based solely on the rules.³⁷ This was a well-recognised problem to which the *Centiloquium* had proposed a solution four hundred years earlier by bringing divine inspiration into the equation as an extra factor without which the astrologer could never successfully manipulate the rules of interpretation. Only the astrologer inspired by God could predict the future in detail, a proposition which brings astrology somewhat closer to prophecy than science. Ibn Khaldun, with his conservative theology, could not accept this solution. In his opinion, astrology was all in the mind, purely a matter of the astrologer's guesswork, with no external presence at all - in spite of the credibility with which he appeared to treat the relationship between historical crises and Jupiter-Saturn conjunctions.

The significant discussions in Islamic cosmology though, went way beyond arguments about whether there was any truth in astrology. It was the theoretical argument which mattered, especially the continuing need to reconcile Neoplatonic thought with the Koran. This problem, already raised by Al Kindi, was taken up by Ibn Sina. Born in 980, possibly in the central Asian city of Bokhara, he is more usually known under the Latinised form of his name, Avicenna. By all accounts Avicenna was a prodigy who was, the stories say, an accomplished doctor by the age of sixteen and, three years later, began a period of travel between the various courts of the Islamic world. By the time he died in 1037, in the Persian city, Isfahan, he had written somewhere between one and two hundred scholarly works, mostly in Arabic, but also in Persian. He reputedly read Aristotle's *Metaphysics* forty times until it was indelibly imprinted on his memory. Avicenna faced the same problem as Al Kindi - how could classical pagan learning be reconciled with Koranic wisdom - and developed a form of the 'cosmological argument', which states that all things need a cause, in this case, ultimately God. In the hierarchy of influences, he reasoned, all things must be sustained by necessary causes. In other words, all layers of reality are contingent, or dependent, on the one above, going up to the top one which is necessary and self-existent. In its essence this is a restatement, in an Islamic context,

36 Ibn-Khaldun, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal, London: Routledge and Kegan Paul 1987, 3.52, p. 259.

37 Ibn-Khaldun, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal, London: Routledge and Kegan Paul 1987, 6.31, p. 407.

of the Aristotelian notion of descending causes, in which causes come down to earth from the mind of God via the stars and successive planetary spheres, and its importance for astrology is that it preserves a role for the planets as secondary causes while maintaining God's absolute sway over the entire cosmos. As a complex system of interlocking correspondences, this scheme was named by Arthur Lovejoy as the Great Chain of Being.³⁸ The essence of everything we can see, touch or imagine is connected by a web of 'sympathies' or 'correspondences'. More explicitly, Neoplatonic influences surfaced in his sympathy for the origin of the world in emanation out of God rather than creation by him, and his argument that celestial substances are kinds of intelligences - in other words that the cosmos is alive. Avicenna's position on astrology represented one strand of Neoplatonism, in which predictive judicial astrology was roundly rejected, while Hermetic cosmology, with all its overtones of both spiritual and physical planetary influence, was valued.

Avicenna's work encouraged the development of groups which continued the practice of Hermeticism as a religion, of whom the most notable was the Ikhwan al-Safa, or Brethren of Purity. Their encyclopaedia, the *Rasa'il*, probably composed in the ninth century, was a synthesis of Neoplatonic and Hermetic teachings presented, for political reasons, within an Islamic context.³⁹ The strand of thought represented by such groups was substantial, has been credited with the tolerant religious policies pursued by Shiite rulers, and were developed by Sufi teachings and amongst the Ismailis. Gnostic tendencies were also pronounced in the Sufi emphasis on *kashf*, or unveiling, through which the initiate might gain direct knowledge of the divine source of cosmic truths. And, in tangible terms, such concepts, expressed through geometry, were embodied in the harmonious patterns which are characteristic of Islamic art.⁴⁰ To gaze on such a design is therefore to absorb an image of the cosmos as alive and rational.

The last major proponent of this synthesis of Islam with the mystery teachings of the classical world was Ibn 'Arabi (1165-1240) whose honorific title, *as al-Shaykh al-Akbar*, 'the greatest master', is the best evidence of the respect which he commanded in his lifetime.⁴¹ Born into a family of government officials in Andalusia, the teenage Ibn 'Arabi experienced a profound gnostic revelation of the invisible world. He left Andalusia on a quest for spiritual wisdom, pursuing his vision, eventually settling in Damascus, where he wrote more than 700 books and treatises, of which about 500 survive. Whereas the influence of such philosophers as Avicenna and Averroës was generally confined to intellectuals, Ibn 'Arabi spoke to the masses, perhaps because he remained close to the language of the Koran and the *Hadith*, Mohammed's collected sayings. The essence of Ibn 'Arabi's teaching, widely quoted in later cosmological

38 Lovejoy, Arthur O., *The Great Chain of Being*, Cambridge Mass., London: Harvard University Press, 1936.

39 Nasr, Seyyed Hossein, *An Introduction to Islamic Cosmological Doctrines*, New York: State University of New York Press, 1993, pp. 25-104.

40 Critchlow, Keith: *Islamic Patterns: An Analytical and Cosmological Approach*, London: Thames and Hudson, 1983.

41 Burckhardt, Titus, *Mystical Astrology According to Ibn'Arabi*, trans. Bulent Rauf, Abingdon, Oxford: Beshara Publications 1977.

writings, was the oneness of being, in which a single reality, *wujūd*, equivalent to the eternal world of Platonic Being, underlies all existence and is identical with God himself. Everything else exists in Platonic 'Becoming', which, though, real to us, is essentially 'imaginal', a mirror of true reality.⁴² The concept of the archetypal perfect man, who has a simultaneously human, cosmic and divine nature and embodied everything that human beings should strive to achieve, proved especially appealing. On the cosmic level the perfect man, as an archetype, existed in the mind of God; he could be seen as the *logos*, the Word of John's Gospel. As the microcosm, an intelligent being made in the image of God, through realising God in himself, he can rule the macrocosm, the cosmos itself. This encouraged a sort of popular religious magic in which the harmony of the cosmos was maintained through the pursuit of divine wisdom, and was to find its most powerful and enduring expression in Sufism. For the whirling Dervishes, the most famous Sufis, astrology is practised not through the casting of horoscopes but through the imitation of the spinning of the planets around the earth. This is more than imitation, though; it is participation, and through it, cosmic harmony is maintained. As in other Gnostic systems, astrology is not always considered essential to the spiritual quest. After all, if one can gain direct access to God, why bother with the stars? Yet, the Neoplatonic notion of the emanation of all things from God, and their return to him, applies to the soul as much as anything else and, in the physical cosmos, this requires a journey through the planetary spheres, the soul's descent before birth and its ascent after death. The logic, then, is that one's birth chart reveals one's spiritual condition. Such ideas were imported partly from the Greek world, from the Hermetic and Neoplatonic texts, but also from related currents in the powerful traditions of Persia itself. Islam, no less than Christianity, was capable of actively absorbing the pagan teachings of its conquered lands.

Even amongst those who took little interest in such esoteric practices, it was part of the astrologer's task to alter the individual's relationship with the cosmos by amending external events. By providing talismans, prescribing medical treatment or offering a range of advice, the Islamic astrologer initiated a dialogue with destiny, the goal of which was to mitigate the demands of Necessity. Hence the close ties between astrology and the treatment of the sick, the direct application of cosmological knowledge to the prevention or postponement of death. Destiny, to the astrologer schooled in hermetic thought, was negotiable. In this process what Ibn Sina called *talismat* (drawing celestial forces upon terrestrial ones) was an essential accoutrement of *nujun* (judicial astrology). *Talismat* offered the practical solution once *nujun* had enabled a forecast to be made. The philosophical quest of the Ikhwan al-Safa was of a different order, yet no less devoted to the principle of astrology as a route to Truth.

42 The term 'imaginal' was devised by Henry Corbin in order to distinguish products or characteristics of consciousness which are 'real', as against the word 'imaginative', in which qualities of the mind have no reality. The word also has other nuances, of the 'image' as icon, or embodiment of numinous reality, or of the world as an 'image' of heaven. The 'imaginal' world is Plato's archetypal world of Ideas and Forms. See Corbin, Henri, *Mundus Imaginalis, or the Imaginary and the Imaginal*, 1964, http://www.hermetic.com/bey/mundus_imaginalis.htm

While it was prediction that aroused criticism of astrology from religious conservatives, forecasting the future was only a part of the astrological project. Astrology's most important function was to manage the present and change the future, a goal which could be achieved through magic, by which we mean the manipulation of the sympathies, rays and correspondences recognised by the Islamic Neoplatonists, Al Kindi and Avicenna. These theoretical models found their practical expression in a work known as the *Ghayat al-Hakim* (the Aim of the Wise), composed in Andalusia around the year 1000. Translated into Latin in 1256 by the Castilian monarch Alfonso the Wise, it was known in Medieval Europe as the *Picatrix*, and was to be the key text of magical astrology until the seventeenth century. The *Picatrix* included direct extracts from the *Rasa-il* and therefore provided a direct line of transition for Islamic Hermeticism, and hence for Babylonian celestial deities, straight into the thirteenth century Christian west. Once the required invocation of Allah had been dealt completed, the text began with a standard formulation of Neoplatonic cosmology: all things derive from the One, the most important human attribute is wisdom, and wisdom lies in knowing the reasons for the existence of things which derive from the One. All things being derived from the One, exist in relation to each other, and those relations may be close or distant, sympathetic or hostile. Magic is defined simply as 'everything that absolutely fascinates minds and attracts souls by means of words and deeds'.⁴³ In other words, it's the attempt to change the world by actively engaging with the sympathies that link everything, including words, thoughts, objects, plants, animals, planets, angels - literally everything. These aims can be achieved through sound, through music and incantations, through words and images written down or inscribed. In Christian terms, a Gregorian chant becomes a magical incantation designed to keep the cosmos functioning, while the Mass is an overtly magical ritual in which the bread and wine are converted into the body and blood of Christ. The central tool of such magic was the talisman, a 'spirit within a body'.⁴⁴ The talisman was a physical object designed to possess the sympathy, or even the life-force, for want of a better term, of a larger slice of the Chain of Being. The astrological component enters the picture because the qualities of time, as represented by the zodiac and planets. An effective talisman should take into account the planet most relevant to the sympathies or correspondences which need manipulating and be constructed when that planet is strong, at its hour, on its day and out of a substance it rules. A Venusian talisman, which might be made to enhance a love affair or soothe a fever, would have been made out of copper, Venus' metal, on Friday (Venus' day) after dawn (the first hour on Friday was ruled by Venus), when Venus was in a sympathetic part of the zodiac, such as Taurus or Libra (the signs it ruled) and making good aspects to other planets. One talisman was made to ensure permanent love according to the following instructions:

make two talismans in an ascendant of good luck when the moon and Venus are in Taurus. In the first picture draw 220 numbers of thousands or zeros and draw in the second picture 284 numbers also of thousands or zeroes. Then

43 Anon. *Ghayat Al-Hakim. Picatrix: the Goal of the Wise*, trans Hashem Atallah, Seattle: Ouroboros Press 2002, I.2, p. 7. This version is an English translation of only the first half of the whole work.

44 Anon. *Ghayat Al-Hakim. Picatrix: the Goal of the Wise*, trans. Hashem Atallah, Seattle: Ouroboros Press 2002, I.2, p. 11.

make them embrace once another and bury them in the location of one of them and permanent love and strong affection will ensue.⁴⁵

As there are only a few days in the year when both Venus and the moon are both in Taurus, patience was required. Talismans could be made to perform any function, to attract people or drive them away, to achieve prosperity or power, even to catch more fish. For this, make a picture of a fish in the moon's hour (the first hour after dawn on Monday, the second on Tuesday and so on), while the moon and Mercury are both rising in the first part of Pisces;⁴⁶ we are assured that this exercise was personally tested by the great philosopher al-Khwarizmi. On the largest scale the magical manipulation of cosmic harmonies was embodied in the sacred dimensions used to design and decorate mosques.⁴⁷ The range of actions in which the astrological rituals enshrined in the *Picatrix* could ensure success, encompassed pretty much everything of concern to a powerful individual in the medieval world, from attaining the woman of one's dreams, to obtaining an influential post, making money from trade, winning battles or improving or, alternatively destroying, a city. We see an early alternative form of marriage guidance ('a talisman for permanent love'), political management ('a talisman for the people to support a governor of a town whose population turned against him'), physical health ('a talisman for the treatment of a scorpion bite') and mental well-being ('a talisman to treat a certain person from depression until he recovers completely').⁴⁸

If magic is the deliberate attempt to change the future then all astrology which moves beyond a simple prediction into any sort of action must be considered magical. And in this context astrological texts such as Abu 'Ali Al-Khayyat, *The Judgement of Nativities* or al-Biruni's eleventh century *Elements of the Arts of Astrology* were magical. They were more than a manual for astrological prediction, of use to those whose attitude to life was passive and fatalistic. Rather, they offered a code to be deciphered by those who were willing to begin the path of personal liberation from the chains of Necessity.

Islam possessed a number of characteristics which allowed it to offer such a ready home to pre-Islamic beliefs and sciences, including astrology.⁴⁹ Firstly, its acknowledgment that God's Truth might be revealed through different faiths permitted the ready incorporation of Hermetic, Neoplatonic and Neo-Pythagorean teachings. Secondly, a recognition that human reason might enhance rather than, as in the dominant trend within Christianity, deny perception of Divine Truth, assisted in

45 Anon. *Ghayat Al-Hakim. Picatrix: the Goal of the Wise*, trans. Hashem Atallah, Seattle: Ouroboros Press 2002, I.5, p. 39.

46 Anon. *Ghayat Al-Hakim. Picatrix: the Goal of the Wise*, trans. Hashem Atallah, Seattle: Ouroboros Press 2002, I.5, p. 41.

47 See Critchlow, Keith: *Islamic Patterns: An Analytical and Cosmological Approach*, London: Thames and Hudson 1983.

48 Anon. *Ghayat Al-Hakim. Picatrix: the Goal of the Wise*, trans. Hashem Atallah, Seattle: Ouroboros Press 2002, I.5, pp. 36, 39, 40, 42.

49 See Nasr, Seyyed Hossein Nasr, *An Introduction to Islamic Cosmological Doctrines*, New York: State University of New York Press 1993, pp. 1-18.

Islamic appreciation of classical philosophy, including those schools which explicitly or implicitly supported astrology. Lastly, an appreciation of natural phenomena as 'signs of God to be contemplated by the believers' encouraged the study of the natural environment. Once the natural realm was extended to the celestial spheres astrology too became a means of revealing God's presence. The Ikhwan al'Safa's *Rasa'il* ascribed all knowledge to four groups of books. The third of these, the Book of Nature, consisted of 'the ideas in the Platonic sense of the forms of creatures actually existing. from the composition of the celestial spheres, the domain of the Zodiac, the movement of the stars, and so on...to the transformation of the mineral, plant and animal kingdoms and the rich variety of human industry'.⁵⁰

This belief in the power of nature to reveal the Divine was especially powerful. It was adopted and repeated by European astrologers as late as the seventeenth century. Nicholas Culpepper, the English radical and astrologer who is still celebrated for his work as a herbalist, advocated the study of two great books, the Book of the Scriptures, or the Bible, and the Book of the Creatures, or Zodiac.⁵¹ According to Culpepper, and here we see an exact repeat of Babylonian tradition, the passage of the planets through the Zodiac was the writing of God, there to be interpreted by anybody versed in astrological principles. Culpepper also made it clear that the Book of the Creatures encompassed the entire natural world. In such a perspective God's truth might be revealed through the opening and closing of a flower as through the study of astrology or the sacred scriptures.

The ideological foundations of the Islamic Cosmic State were reinforced by Al-Farabi, who was known as the 'second philosopher', or teacher of Aristotle - if Al-Kindi was the first. Al Farabi was born around 870, died in 950 and wrote extensively on the ideal society. His *Principles of the Views of the Citizens of the Best State*, based heavily on Plato's *Laws* and *Republic*, became the major Arabic work on political Platonism, the doctrine that any rationally organised government must be based on the equally rational organisation of the cosmos as set out in Plato's major cosmological work, the *Timaeus*.⁵² To those who argued that astrology should play an essential aide to political decision-making, Al Farabi's work was a gift. More important for the future of astrology, though, was his adoption of a concept from the third century Aristotelian philosopher, Alexander of Aphrodisias. Alexander had begun his teaching at Athens around the year 200 and set out to rescue Aristotle from what he saw as the mystical clutter of first and second century 'Middle' Platonism. His significant idea, though, which occurs in his work *De Anima*, was a development of Aristotle's proposition that there were two sorts of intellect, and identified one as the Active, the other as the Passive.⁵³ Alexander identified the 'active intellect', with the

50 *Rasa'il* IV, 106, cited in Nasr, Seyyed Hossein, *An Introduction to Islamic Cosmological Doctrines*, New York: State University of New York Press 1993, p 39.

51 Culpepper, Nicholas, *Catastrophe Magnatum*, London 1652.

52 Al Farabi, *Al-Farabi on the Perfect State*, trans. Richard Walzer, Oxford: Clarendon Press 1985.

53 See the discussion in Fakhry, Majid, *A Short Introduction to Islamic Philosophy*, Banbury: Oneworld Publications 1997, pp. 43-5. For discussion of Alexander of Aphrodisias' influence in the Islamic world see Fakhry, Majid, *A History of Islamic Philosophy*, New York: Columbia University Press 1983.

First Cause, the One, the closest Aristotle came to a creator. The active intellect was divine, universal and both originated with and returned to, God. The passive intellect, meanwhile, was the individual intellect. One's own mind but, being passive, it had to be aroused by the active if it was to achieve its potential. The active intellect is, in these terms, a universal organising agency which imparts to humans the ability to reason and can be described as analogous to the sun, in that it makes potentially visible objects actually visible. The purpose of the philosophical life, Alexander argued, was to unite the two, bring the individual intellect into contact with the One via the active intellect. This notion was then adopted by the second (????) century Neoplatonic philosopher Plotinus, in whose writings it was transferred to the Islamic world and developed by Al Kindi and Avicenna. For Al-Farabi, who transmitted this notion to Averroës, it became the ruler of the Platonic World of Becoming, in the sub-lunary world, the world we inhabit.⁵⁴ One conclusion which arose from this train of thought, and which was dangerously close to heresy, was that there is no individual immortality, and that eternal life consists in survival of the active intellect. Such everlasting life, though, could only be achieved when the individual manages to give up all physical desires, after which the soul is free to join the intelligences which inhabit the living, intelligible, cosmos. It follows that such ideas are likely to be hostile to simple notions of planetary fate.

In general, though, Islamic Neoplatonism provided a tidy justification for both astrology and magic but Avicenna's view was to be substantially challenged in the twelfth century by the Andalusian philosopher Ibn Rushd (1126-1198), better known under his Latinised name, Averroës. Born in Cordoba, Averroës lived in Marrakesh before becoming a judge in Seville and, through the accident of his geographical location he was to have an impact on European thought as immediate as that in the Islamic world.⁵⁵ Representing the same sort of reforming tendency as did Ibn Khaldun in the next century, he set out to rescue Aristotle from what he saw as Neoplatonic, Hermetic and other religious impurities. Like Aristotle he completely rejected Platonic Ideas. He attacked the cosmological argument - that as all things must be caused by something else, there must be a supreme cause, a Creator - and argued that only physical arguments can explain physical things. However, and this was to be his significance in the history of astrology, he adopted, via Al-Farabi, Alexander of Aphrodisias' notion of a universal, passive intellect which provides what is common and immortal in human beings. This was not an unusual teaching. Ibn 'Arabi proposed a universal soul, derived from Plato's world soul; when the Intellect writes on the Soul, Primary Matter and Nature are born. Averroës, though, preferred a less esoteric version. When the thirteen year old Ibn 'Arabi, met the philosopher, who would then have been at the height of his powers, the precocious youth lectured him in the inadequacy of purely intellectual knowledge.

Averroës may have purified Aristotle but some of his ideas were no more Islamic than Avicenna's. In fact, so pervasive was Neoplatonism that he could never free himself

⁵⁴ See the discussion in Walzer, *Al-Farabi*, p. 11.

⁵⁵ Kogan, Barry S., *Averroës and the Metaphysics of Causation*, Albany: SUNY Press, 1985; Leaman, Olivier, *Averroës and his Philosophy*, London: Routledge, 1997.

from its legacy.⁵⁶ Aristotle's belief in an eternal world, for example, which was never created and can never be destroyed, is fundamentally at odds with the entire Judaeo-Christian-Islamic notion of a world which was created out of nothing and will eventually be destroyed. While Ibn 'Arabi's influence in the Islamic world was immense, though he remained unknown in the west until recently, Averroës, whose impact in his own culture was confined to rarified intellectual circles, was to be responsible for a profound theological crisis in medieval Europe.

There's a reason why discussion of Islamic astrology focuses on the literary evidence of its practice at the highest levels. However, there is some textual evidence of the practice of astrologers.⁵⁷ Obviously, the most abundant information comes from the kind of topics that astrologers could deal with, as outlined in the major instructional manuals. One could, for example, estimate good fortune and length of life, or find lost goods, and we should not underestimate the complexity of doing this; to estimate good fortune, for example:

You should look at the lords of the triplicity of the luminary which is appropriate to the native, in a diurnal nativity [the lords of triplicity of the Sun, and in a nocturnal nativity [the lords of the triplicity] of the Moon; if these are in angles and free from malefics, this indicates good fortune all of the days of his life.⁵⁸

It is not necessary to understand the details of this passage in order to glean several important pieces of information. First, the cosmos can be reduced to a numerical code, as all the positions described above are defined mathematically, or geometrically. There is, undoubtedly, a sense of absolute determinism. However, there is a hint of the need for personal judgment in the phrase 'appropriate to the native': the astrologers must decide for themselves what constitutes 'appropriate'. But the real indeterminism is located in the sheer complexity of the factors which need to be taken into account. It is extremely rare that an unambiguous assessment can be made, and therefore judgment must, in the words of the *Centiloquium*, always be uncertain, unless God is invoked. And it's this indeterminism which permitted astrology's real project, not to predict the future, but to manage the present.

No doubt, though, some astrologers spoke in terms of certainty, for this is what clients need: if you want your lost property found or, more seriously, the parentage of a child established, you need to know exactly. In this sense the astrologers' dialogue with the public may be different from that which they hold amongst themselves. The evidence suggests astrologers existed at all levels of society, from the court and philosophical

56 See the discussion in Colish, Marcia L., *Medieval Foundations of the Western Intellectual Tradition*, New Haven and London: Yale University Press 1998, p. 147.

57 For what follows see Saliba, George. "The Role of the Astrologer in Medieval Islamic Society," in Savage-Smith, Emilie (ed.) *Magic and Divination in Early Islam*, Abingdon: Ashgate, 2004, pp. 341-363.

58 Masha'allah, 'On the Fortune and Infortune of the Native', *Book of Nativities*, trans. Robert Hand, Berkeley Springs: Golden Hind Press, 1994, p. 19. For finding lost property, see Masha'allah, *On Reception*, trans. Robert Hand, Reston VA: ARHAT, 1998, chap. VI.

schools, to the street. Most clients were women, the fees which astrologers might charge varied from the exorbitant to the minimal and, while some were full-time professionals, others combined their work with other professional activities, often medicine, or saw it primarily as a hobby. This is exactly the situation we might have found in ancient Rome, or modern Delhi or even Los Angeles. The existence of street astrologers does, though, raise difficult issues concerning astrology's status. No doubt some astrologers preferred to work on the street; in any pre-modern city a large number of trades are carried out in the street. However, there is some evidence that the relentless hostility of conservative theologians being required to work on the street, presumably as form of harassment. Astrology, though popular, was always on the ideological defensive. In which case, again, the situation was precisely the same as in Christian Europe.

IF WANT TO EXPAND THIS USE ABU MA'SHAR STORIES FROM SALIBA.

Islamic astrology from the thirteenth century onwards is almost entirely neglected by western scholars. There are just a few examples of studies up to modern times.⁵⁹ The notion of an Islamic Golden Age of learning which came to an end in the eleventh century suited the vanity of European historians in the twentieth century who saw intellectual vigour moving to Catholic Europe. Other evidence suggests continuity, or even that astronomy in the region boomed in the period following the Mongol conquest: in early fifteenth century Samarkand, home to the observatory of Ulugh Beg, Tamurlane's grandson, and around sixty or seventy astronomers, had a claim to be the astronomical capital of the world.⁶⁰ The demand for astrology remained, as witnessed by a Persian study of world history, using Abu Ma'shar's theories and Jupiter-Saturn conjunctions, which was written in 1691.⁶¹

We do need to pay attention briefly to the question which troubles some historians, of why there was no scientific revolution in the Islamic world. The obvious response is that the basis of the question is essentially meaningless; why, we may ask, does any culture not develop the attributes of other cultures?⁶² True, there is an argument that Islamic culture suffered from military upheavals. The Seljuk Turks occupied Baghdad in 1055 and sacked Cairo in 1086, in 1258 the Mongol Khan, Hulagu, sacked Baghdad and devastated the region and, in 1393, Timur - Tamurlane - followed suit. Yet, the connection between such disasters and intellectual life are uncertain. We could go further and point out that war in Europe did not inhibit scientific life and may have encouraged it: armies invariably require the latest technology. Yet, at this point in our narrative, the focus of our history moves back to

59 See for example, Elwell-Sutton, L.P., *The Horoscope of Asadullah Mirzā: A specimen of nineteenth-century Persian astrology*, Leiden: Brill 1977.

60 See 'The Heritage of Ulugh Beg' in Kennedy, Edward S., *Astronomy and Astrology in the Medieval Islamic World*, Aldershot: Ashgate 1998, chap. XI.

61 Kennedy, Edward S., 'An Astrological History Based on the Career of Ghenghis Khan', in Kennedy, Edward S., *Astronomy and Astrology in the Medieval Islamic World*, Aldershot: Ashgate 1998, chap. XVII.

62 For this and what follows see the discussion in Iqbal, *Islam and Science*, pp. 125-170.

Europe and to the condition of its intellectual life in 531, when that small band of pagan philosophers went in search of their scholarly utopia in Persia.

For example the *The Judgement of Nativities*, which dealt with the analysis of personal birth-charts and was composed by Masha'allah's student, Abu 'Ali Al-Khayyat, is best understood in a Neoplatonic or Stoic context. To be sure, its mathematical precision was most impressive. For the 'causes and occasions of death;' we are told, the astrologer should examine the horoscope (ascendant) and its lord, the part of death and its lord, the fourth house and its lord, any planets in that house and their lords, and planets that aspect those planets and their lords, followed by 'the lord of the Triplicity of the Angle of Earth and the lord of the 7th house, and the 8th sign from the sun and the Moon and their lords'.⁶³

⁶³ Abu 'Ali Al-Khayyat, *The Judgement of Nativities*, trans James H. Holden, Tempe, Arizona: American Federation of Astrologers, 1988, chap. 27.