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# Medieval Cosmology

## Part 1

Nick Campion

- Purpose: to gain a critical understanding of the contexts of western medieval astrology



# Required Reading: Primary Sources

- Aquinas, Thomas, *Summa Contra Gentiles*, trans James F. Anderson, Notre Dame and London: University of Notre Dame Press, 1975, books two and three, extracts.
- Book 3, chaps 84 – 100, 104.
- <http://dhsprory.org/thomas/ContraGentiles3b.htm>
- 
- Bonatus, Guido, 'Considerations' trans. William Lilly, London 1676.
- [http://www.hermetics.org/pdf/astrology/Guido Bonatus - Anima Astrologiae.pdf](http://www.hermetics.org/pdf/astrology/Guido_Bonatus_-_Anima_Astrologiae.pdf)
- Paras 1,2,3, 7, 10, 11, 12,
- 
- Bonatus, Guido, 4<sup>th</sup> House Elections, extracted from Bonatti, Guido, *Liber Astronomiae*, trans. Benjamin Dykes, 2 Vols., Golden Valley MN, The Cazimi Press, 2007.
- <http://www.skyscript.co.uk/4elect.html>
- 
- Ptolemy, Claudius, *Centiloquium*, transcribed and annotated by Deborah Houlding from the Henry Coley edition. Paragraphs 1-14.
- <http://www.skyscript.co.uk/centiloquium1.html>

# Required Reading: Secondary Sources

- Campion, Nicholas, *A History of Western Astrology*, Vol. 2 (London: Continuum 2009), chapters 1-6.
- 
- Grant, Edward, 'A New Look at Medieval Cosmology, 1200-1687', *Proceedings of the American Philosophical Society*, Vol. 129, No. 4 (Dec. 1985), pp. 417-432.
- JSTOR
- 
- Holden, James Herschel, *A History of Horoscopic Astrology*, Tempe AZ: American Federation of Astrologers, 1996, pp. 103-156
- GOOGLE BOOKS
- 
- North, John, *Stars, Minds and Fate: Essays in Ancient and Medieval Cosmology*, London, The Hambledon Press 1989, chap 8: 'Astrology and the Fortune of Churches', chap 18 'Celestial Influence – The Major Premiss of Astrology
- GOOGLE BOOKS

# Required Reading: Historiography

- Evans, Richard, *In Defence of History*, London: Granta Books 1997, chapter 4.
- 
- Nick's Notes on Astrological Historiography
- Remember, as lecture notes these are not quotable, but you can use them as a resource.

# Historical Context

# The Medieval Period

- 1. 500 to c.1150: cosmology = combination of scripture + Plato
- 2. c.1150-c.1400: cosmology = combination of scripture + Aristotle (+ Plato)

# Historical Context

- 476 Last Roman Emperor to reign in Italy: most of western empire gradually becomes dominated by Germanic kingdoms.
- 622 Hejira: beginning of Islamic period
- 700 Coronation of Charlemagne as Holy Roman Emperor
- 754-775 Al Mansur: beginning of 'golden age' of Islamic learning
- After 1000 Scholars in western Europe begin to develop interest in astrology as part of wider rediscovery of classical learning.

# Historical Context

- Decline of Roman Empire from c 400
- Roman empire in western Europe disintegrated.
- Decline of Roman culture was much more rapid in some places (Britain) than others (southern Italy, Sicily), so it is difficult to generalise.
- Astrology suffered from (a) decline of literacy and (b) Christian hostility.
- However, (a) acceptance of celestial influence was universal and (b) popular practices continued.

# Historical Context

In the Eastern Roman Empire astrology literacy remained constant, but declined as a result of Christian ascendancy.



# Historical Context

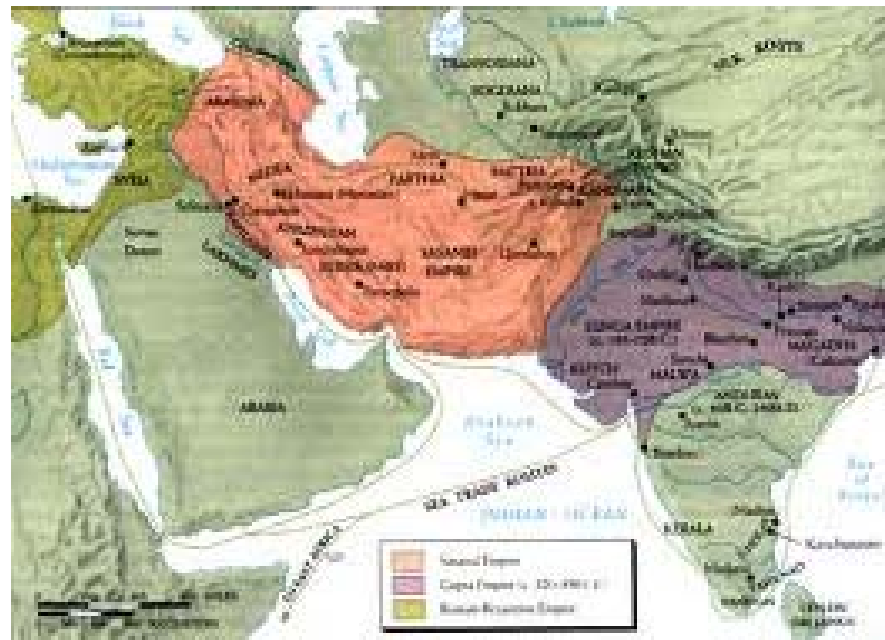
## Europe in 600

- Conquests by Eastern Empire maintain Greek/Roman culture in Italy, Spain, North Africa.



# Historical Context: India

- India: imports Hellenistic texts from c 1<sup>st</sup>/2<sup>nd</sup> century
- Gupta Empire: c 320-550 CE: 'Golden Age'
- Was their innovation in technical astrology?
- Pingree: Indians invented Horary Astrology (this is disputed)
- Indian astrology is awaiting study. To my knowledge there are no scholars working on this period.



# Historical Context: The Islamic World

- 622. The Hejira
- 712. Conquests reach maximum extent
- Al Mansur 754-775, resumes the Persian practice of collecting and translating Greek, Syriac and Indian texts.
- Persia becomes centre of learning in all forms, including astrology.
- Cultural Zone extends from northern India to Spain

# Historical Context: Persia

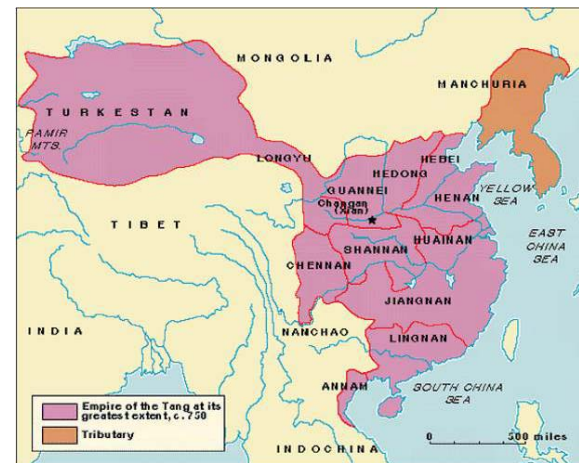
- Hellenistic astrology reaches India via Persia in c 1st/2<sup>nd</sup> centuries
- Did Persia innovate?: astrological history and Jupiter-Saturn cycle.
- 529 CE: Pagan/Neoplatonic teaching at Platonic Academy in Athens ceases. The Neoplatonic philosophers move to the Persian court (although they were not welcome at court, this is indicative of a move from the Roman/Greek world to Persia of a sympathetic environment for astrology).

# The Islamic World at its Maximum Extent c. 712.



# Historical Context: China

- After the Arab conquest of Persia in 642-4 the entire Persian court, with many scholars, moved to China (Tang Dynasty), taking Hellenistic astrology with them.
- An alternate route of transmission was through Buddhism from India.
- It is thought that the common use of square horoscope diagrams was exported back the west from China.



# THEORY:

## Christianity and Cosmology

# Christian Cosmology

- The essential features of medieval cosmology were composed of
  - (a) surviving classical teachings with
  - (b) Christian perspectives drawn from the Old and New Testaments

# God parting the Waters

Monreale, Palermo, late 12<sup>th</sup> c



# Scriptural texts in favour of astrology

- 'And God said "Let there be lights in the firmament of the heavens to separate the day from the night; and let them be for signs and for seasons and for days and years'.
- The heavens are telling the glory of God,
- and the firmament proclaims his handiwork.
- Psalms 19.1

# Scriptural texts against astrology

- Isaiah 47.13-14:
  - 'You are wearied with your many counsels;
    - let them stand forth and save you,
      - those who divide the heavens,
        - who gaze at the stars,
      - who at the new moons predict
        - what shall befall you.
      - Behold, they are like stubble,
        - the fire consumes them;
      - they cannot deliver themselves
        - from the power of the flame'.
          - Jeremiah 10.2-3:
            - 'Thus saith the Lord,
              - "Learn not the way of the nations,
  - nor be dismayed at the signs of the heavens
  - because the nations are dismayed at them,
  - for the customs of the peoples are false".

# Scriptural texts against astrology

predicting the future is impossible

- **Mark 13.**
- 31 Heaven and earth will pass away, but my words will not pass away.
- 32 But of that day or hour no one knows, not even the angels in heaven, nor the Son, but only the Father.\*
- 33. Take heed, watch, for you do not know when the time will come.
- **Acts 1.6:** 'So when they had come together, they asked him, "Lord, will you at this time restore the kingdom to Israel?" He said to them, "It is not for you to know times or seasons which the Father has fixed by his own authority'.

# Scriptural texts in favour of astrology

- The Star of Bethlehem



# Scriptural texts in favour of astrology

- Mark 13.
- 24 But in those days, after that tribulation, the sun will be darkened, and the moon will not give its light,
- 25 and the stars will be falling from heaven, and the powers in the heavens will be shaken.
- 26 And then they will see the Son of man, coming in clouds with great power and glory.
- 27 And then he will send out the angels, and gather his elect from the four winds, from the ends of the earth to the ends of heaven.
- Right: Four Horsemen of the Apocalypse, Durer, 16<sup>th</sup> c



# Recognitions of Clement

## 3rd c.

- **Available throughout medieval period**
- **Described and attacked astrology**
- **E.g. Book 9:**
- For they [astrologers] represent these Climacterics as times of danger, in which one sometimes is destroyed, sometimes is not destroyed, not knowing that it is not the course of the stars, but the operation of demons, that regulates these things; and those demons, being anxious to confirm the error of astrology, deceive men to sin by mathematical calculations, so that when they suffer the punishment of sin, either by the permission of God or by legal sentence, the astrologer may seem to have spoken truth.
- <http://www.compassionatespirit.com/Recognitions/Recognitions-TOC.htm>

# Augustine 354-430

- Astrology works because of (a) chance (b) demonic intervention.
- Astrology doesn't work – e.g. twins have different lives



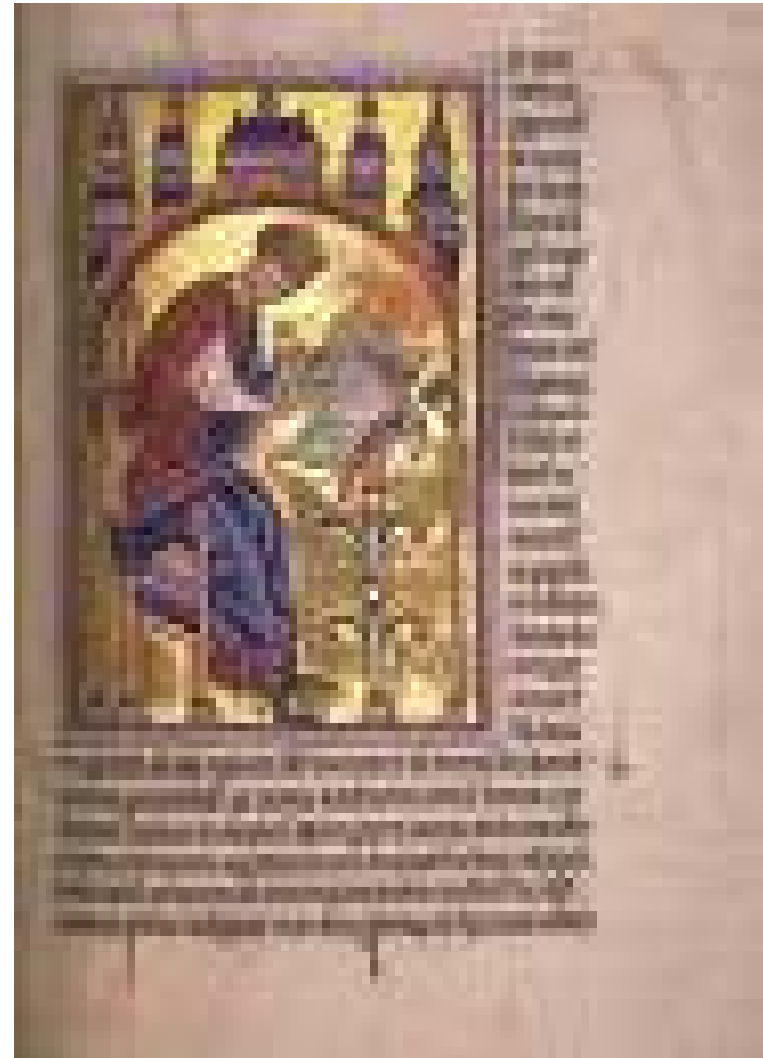
# But: Augustine on Celestial Influence

- Now it could be maintained, without utter absurdity, that some influences from the stars have an effect on variations confined to the physical realm. We observe that the variation of the seasons depends on the approach and withdrawal of the sun, and the waxing and waning of the moon produces growth and diminution in certain species, such as sea-urchins and shell-fish, and also the marvellous variation of the tides.[\[1\]](#)
- [\[1\]](#). Augustine, *City of God*, Book V, 6.

- THEORY:
- DIVISION OF ASTROLOGY INTO  
DIFFERENT KINDS

# Isidore of Seville

- C.560-636
- Bishop of Seville
- Etymologiae became the major source of knowledge in early medieval Europe



# Isidore on Astrology

- 1. *astronomia*
- 2. *astrologia*
- 2a. *natural astrology*: based on solar and lunar influences and seasonal changes in the positions of the stars.
- 2b. *superstitious astrology*: augury, divination

# Isidore's world



# What texts were available 500-1100?

- The scriptures
- Plato, *Timaeus*, first half only, commentary by Calcidius
- Macrobius – commentary on the Dream of Scipio – ascent to the stars
- Boethius – in favour of celestial fate
- Pliny – Natural History
- Astrology – Alexander of Tralles

# Planetary Influence: Pliny the Elder

- 23-79 CE
- Work available through the medieval period.
- Emphasised the planets' role as natural influences.



# Pliny the Elder

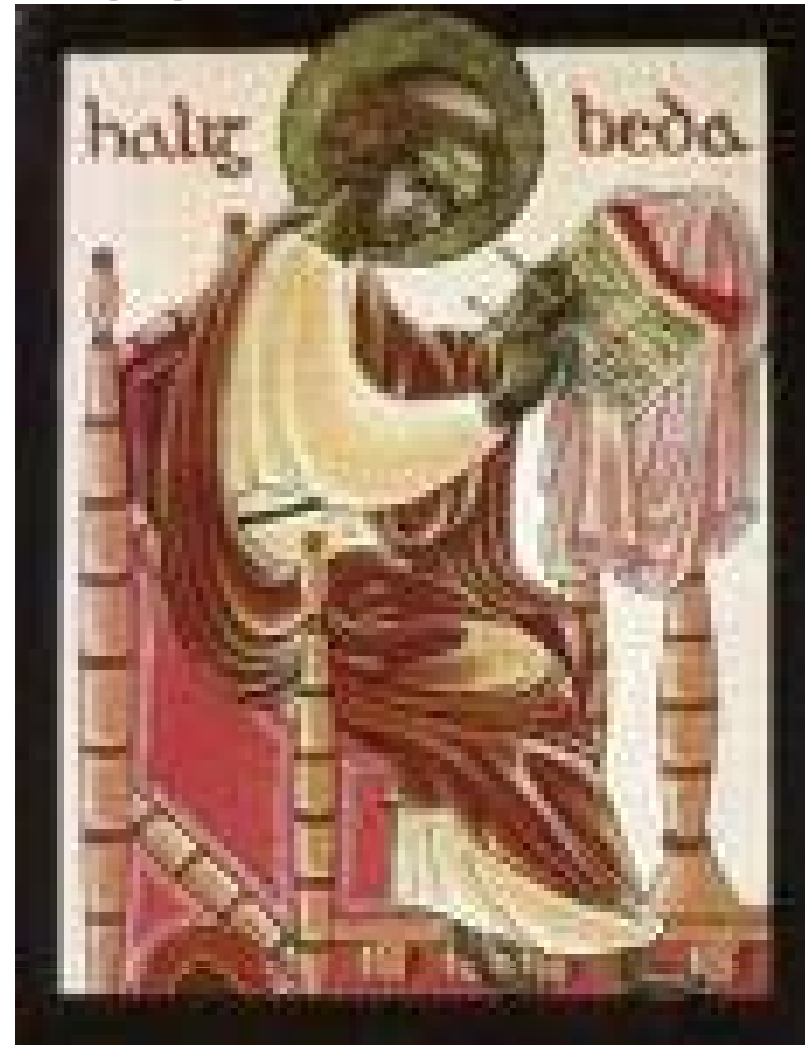
- the planets, moving as they do through the Aristotelian ether, or 'vapour', have physical qualities which exert a material influence; Saturn is cold and frozen, Jupiter warmer and Mars positively hot, while Venus is 'the cause of the birth of all things upon earth' and 'scatters a general dew' at its rising which stimulates the sexual organs.[\[1\]](#) The sun and moon speak for themselves, the former being hot and the latter moist.
- [1] Pliny, *Natural History*, II.iv.12, vi.32-40, see also xvi,19.

# Omens: The Venerable Bede

## 672/3-735

- . Bede endorsed the conventional view of comets. In his *Ecclesiastical History of the English People*, he recorded that,
- In the year of our Lord 729, two comets appeared around the sun, striking terror into all who saw them. One comet rose early and preceded the sun, while the other followed the setting sun at evening, seeming to portend awful calamity to east and west alike. Or else, since one comet was the precursor of day and the other of night, they indicated that mankind was menaced by evils at both times. They appeared in the month of January, and remained visible for about a fortnight, pointing their fiery torches northward as thought to set the welkin aflame.<sup>[1]</sup>

<sup>[1]</sup> Bede, *Ecclesiastical History of the English People*, trans. D.H. Farmer, London: Penguin, 1990, V.23, p. 323.



Comets as signs or disturbances in the  
upper atmosphere  
(Halley's comet 1066)



# Bede's World



# ‘Bede’ on thunder divination

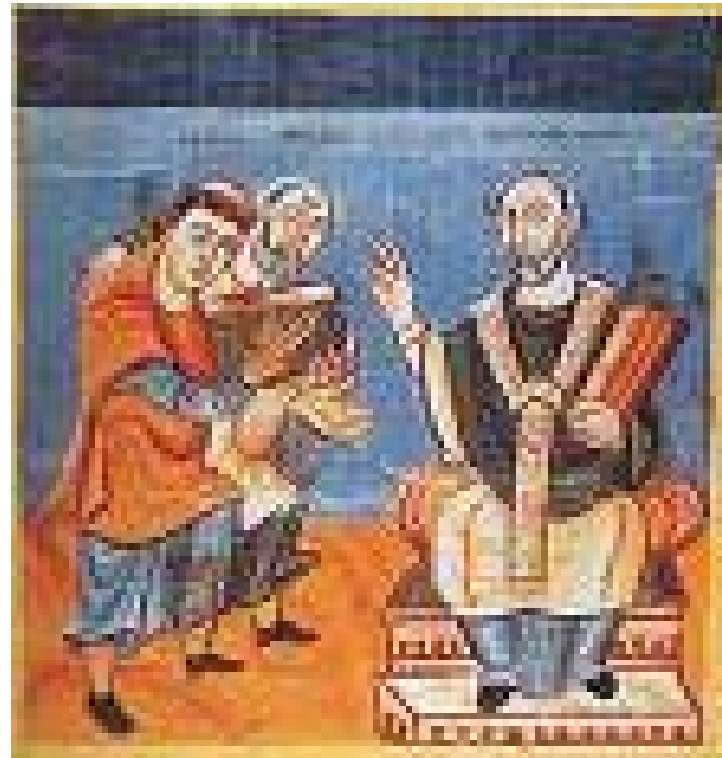
- Bede apparently repeated statements on thunder divination, relating it to the four points of the compass, the seven days of the week, and the twelve months of the year, possibly based on his own translation of a work by the sixth century Greek astrologer, John of Lydus; if thunder occurs in the east, for example, there will be bloodshed.[\[1\]](#)

[\[1\]](#) Thorndike, *Magic*, Vol. I, pp. 635-6.

# The Carolingian Renaissance

## Alcuin

- C.735-804
- Einhard reported that, under Alcuin's careful stewardship, 'the Emperor spent much time and effort in studying rhetoric, dialectic and especially astrology... (and) applied himself to mathematics and traced the course of the stars with great attention and care'



# The Uses of Astronomy

- Computus: the calculation of Easter
- The regulation of the ritual day
- One ninth century *computus* included a numerological divining 'sphere of Pythagoras', an account of Egyptian lucky and unlucky days, performing a service not unlike modern horoscope columns, and instructions on divining from wind.[\[1\]](#)

[\[1\]](#) Thorndike, *Magic*, Vol. I, p. 673.

# The Uses of Astronomy

## What sort of astrology was available?

- Alexander of Tralles c. 500.
- An effective treatment for feet ulcers: make a ligature using the muscles from a wild ass, a wild boar and a stork and, for best effect, apply it when the moon is in the west or a 'sterile' sign, and approaching Saturn.[\[1\]](#)
- As a cure for gout, one should copy a verse from Homer onto a copper plate when the moon is in either Libra or Leo.
- Gathering of herbs for the treatment of bleeding hands or feet should take place when the moon is in Aquarius and under Pisces, an instruction which suggests that constellations were being used, rather than zodiac signs.[\[2\]](#)
- [\[1\]](#) 'Sterile', or 'barren' signs were Gemini, Leo and Virgo. See Lilly, William, *Christian Astrology*, London 1647, facsimile edition, London: Regulus Publishing, 1985, pp. 86-90 for the best summary of the categorisation of zodiac signs in medieval astrology.

# Astrology: Lunaria

- Divination based on the day of the month or lunar cycle was also common and *Lunaria*, or moon-books designated favourable and unfavourable days. A volume ascribed to 'Saint Daniel' provided advice for babies born on the lunar day, while another treatise went further and offered a prognostication based on the day of the moon on which the patient fell ill.[\[1\]](#)

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[\[1\]](#) Thorndike, *Magic*, Vol. I, p. 680.

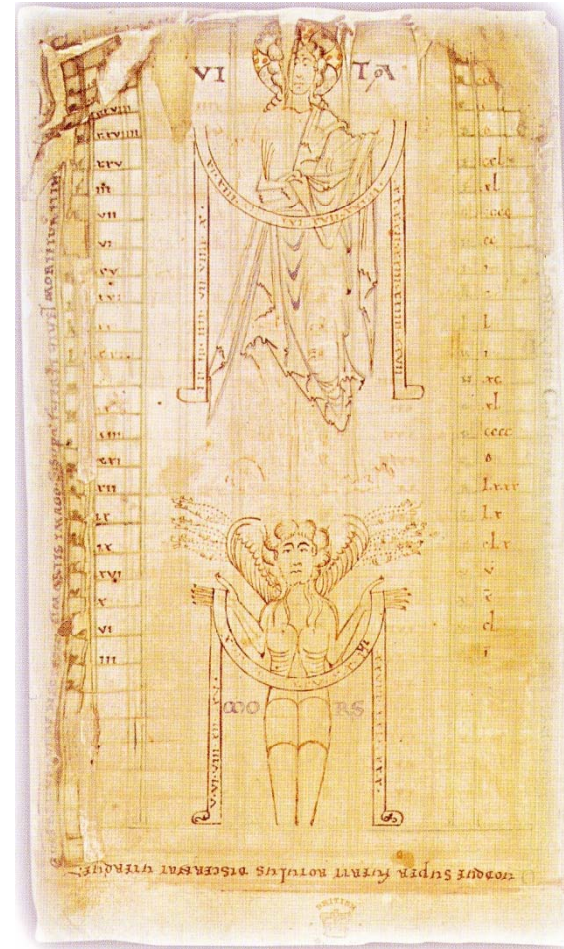
# The Sphere of Petosiris

- A means of answering questions by the following method;
- 1. the numerological value of the questioner's name in Greek letters is added to the number of the lunar day,
- 2. the result is then divided by twenty-nine, the approximate number of days in the lunar cycle.
- 3. the answer can then be read from a circular diagram.
- An alternative method works from the days of the week, giving the numerical values of the planetary gods (moon for Monday and so on) rather than the lunar days.

# Sphere of Life and Death, c. 1050

Cotton MS Tiberius C.VI.f.6v

- Add numerical value of letters in patient's name.
- Add result to day of the lunar month on which the patient fell ill.
- Divide result by 30.
- If the result was ruled by Christ-life the patient would live, if by Satan-death, the patient would die.
- Could be used by physicians and priests who wished to know whether to administer the last rites.



## **In Christian culture, nothing existed independent of Christian belief, including astrology**

- As Notker Labeo (c.950-1022), a French monk well-known for his translations of Boethius, Martianus Capella and some fragments of Aristotle, put it, the complexity of computing the date of Easter by the sun and the moon pointed to a mystery, the solution of which encouraged the devout to turn their minds to the splendour on high, and from earthly darkness and sin to the light of celestial piety.[\[1\]](#)

[\[1\]](#) See Thorndike, Lynn, *History of Magic and Experimental Science*, New York: Columbia University Press 1923, Vol. 1, p. 677.

# CONCLUSIONS AND THOUGHTS:

- Transmission of ideas?
- Transmission, use of, and innovation in technical astrology?
- Relationship between astrology and religion?
- Models of reform and decline?
- Differences between elite ideas and popular

# Medieval Cosmology

## Part 2

# The Medieval Period

- 1. 500 to c.1150: cosmology = combination of scripture + Plato
- 2. c.1150-c.1400: cosmology = combination of scripture + Aristotle (+ Plato)

# The Twelfth Century Renaissance

## Europe in 1100



# The Twelfth Century Renaissance

- Marked by the translation of classical Greek and Persian texts from Arabic, but also some direct from Greek.
- The revolutionary impact was provided by initially by the Aristotelian content of astrological works (Ptolemy, Abu Ma'shar)

## *Liber Planetis et Mundi Climatibus,*

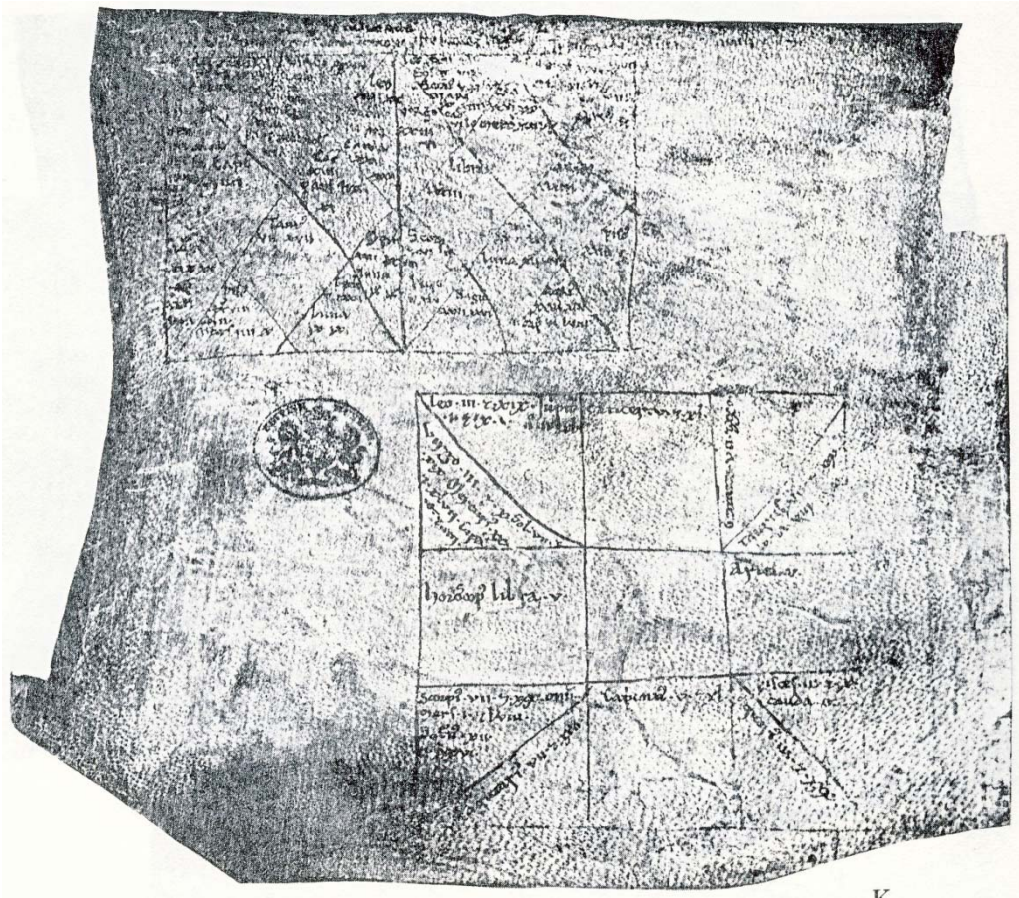
- anonymous 1010-1027.
- The earliest known text book of medieval horoscopic astrology
- Possibly by Gerbert d'Auvergne 946-1003 (Pope Sylvester II 999-1003)

# The Translations

- 1126 Adelard of Bath, Al-Khwarizmi's Arabic astronomical tables
- 1136 Hugh of Santalla, Claudius Ptolemy *Centiloquium*,
- 1138 Plato of Tivoli, Claudius Ptolemy *Tetrabiblos*
- 1140 Herman of Carinthia, Abu Ma'shar *Maius Introductorum*
- 1160, anonymous, Claudius Ptolemy *Almagest* direct from the Greek.
- 1175 or 1176 Gerard of Cremona, Claudius Ptolemy *Almagest*
- 1256 *Picatrix*: major work of astral magic

# Adelard of Bath c.1080-1152

left horoscope possibly drawn by Adelard. Right cover of  
Euclid's Elements c 1308.



# Radical significance of the translations

- 1. Nature is a suitable object of study (Ptolemy locates astrology in lunar influences): conflicts with puritanical notions of nature as debased.
- 2. The quality of soul is indicated astrologically (Ptolemy gives astrological signatures for the soul): threatens soul's ability to freely choose salvation.
- 3. Reason is a path to knowledge of God equal to Faith (there is a Platonic resonance in this idea, conveyed to European scholars via Platonic tendencies in Islamic texts)

# Therefore

- Because Ptolemy justified astrology on naturalistic grounds
- And Aristotle conceived of planets as sources of influence rather than occult powers,
- The use of horoscopes could be categorised under Isidore's natural astrology, rather than superstitious astrology.
- Astrology was therefore natural philosophy, not divination.

# Proposition: Astrology was Revolutionary

- Not all theologians accepted this reading of astrology's nature. Many continued to regard it as divination, and therefore illegitimate. For some there was a sliding scale with some forms of astrology more permissible than others.
- In the wider culture of the time, the introduction of astrology was part of a revolutionary cultural movement.

# The Branches of Astrology

there was a clear understanding that astrology could provide distinct functions, which might have differing relationships to cosmology

- 1. Natural – requiring only general planetary influences
- 2. Judicial – requiring judgment from horoscopes
  - i. Nativities
  - ii. Elections
  - iii. Interrogations
  - iv. Revolutions (the Solar, usually Aries ingress as applied to the whole year, Conjunctions (the political, economic, climatic significance of planetary conjunctions, chiefly Jupiter-Saturn).

# The Problem

- The astrological texts being translated into Latin came with a refreshing and plausible rationale – Aristotelian naturalism.
- However, Ptolemy not only divorced astrology from pagan deities, rendering it theoretically acceptable within a Christian context, he wrote about the influence of the stars on the condition of the soul, rendering it unacceptable.

# **The Solution. Thomas Aquinas**

## **1224/7-1274**



- *Summa Contra Gentiles* (= *Against the Errors of the Infidels*): A response to the translations of Arabic astrological texts, written in an Aristotelian and Ptolemaic context, which presented astrology in a naturalistic framework and suggested that the soul was subject to natural influence.
- Aquinas was not aware directly of the Corpus Hermeticum, but was familiar with the theological lineage of which it was a part, within Christianity.





# The Problem

- SGC.III.85.14.
- Quotes Augustine City of God V.6: 'it is not utterly absurd to say that certain influences of the stars are able to produce differences in body only'.



# But

- All people have Active Intellect but only a few people develop it through Christian worlds and study (SCG 85).
- (Aristotle)

# Astrology can analyse character

- 'So, the celestial bodies work indirectly on the good condition of understanding. Thus, just as physicians may judge the goodness of an intellect from the condition of its body, as from a proximate disposition, so also may an astronomer judge from the celestial motions as the remote cause of such dispositions. In this way, then, it is possible that there is some truth in what Ptolemy says in his Centiloquium: 'When, at the time of a man's birth, Mercury is in conjunction with Saturn and is itself in a strong condition, it gives inwardly to things the goodness of understanding'.
- III.84.14
- Centiloquium 38.

# 'Whether divination by the stars is unlawful?'

- Extracts from *Summa Theologica* 2.2.95.5
- <http://www.newadvent.org/summa/309505.htm>
- **I answer that,** As stated above (1 and 2), the operation of the demon thrusts itself into those divinations which are based on false and vain opinions, in order that man's mind may become entangled in vanity and falsehood. Now one makes use of a vain and false opinion if, by observing the stars, one desires to foreknow the future that cannot be forecast by their means.

# In other words

- Astrology is acceptable as natural Philosophy
- As divination it is forbidden



# And

- The stars influence the body
- But not the soul (= Aristotle's Active Intellect)
- However, the body influences the soul.
- Therefore the stars influence the soul indirectly.
- Therefore prayer and virtue are necessary to resist temptation aroused by astrological influences.

# Astrology works in two ways

- One is demonic
- "When astrologers tell the truth, it must be allowed that this is due to an instinct that, unknown to man, lies hidden in his mind. And since this happens through the action of unclean and lying spirits who desire to deceive man for they are permitted to know certain things about temporal affairs." Wherefore he concludes: "Thus a good Christian should beware of astrologers, and of all impious diviners, especially of those who tell the truth, lest his soul become the dupe of the demons and by making a compact of partnership with them enmesh itself in their fellowship."



# Astrology works in two ways

- The other is the failure of human being to transcend their natures:
- **‘That astrologers not unfrequently forecast the truth by observing the stars may be explained in two ways. First, because a great number of men follow their bodily passions, so that their actions are for the most part disposed in accordance with the inclination of the heavenly bodies: while there are few, namely, the wise alone, who moderate these inclinations by their reason. The result is that astrologers in many cases foretell the truth, especially in public occurrences which depend on the multitude.’**
- *Summa Theologica* 2.2.95.5
- <http://www.newadvent.org/summa/309505.htm>





# Consequence for Modern Astrology

- The planets become a 'pathway' (Platonic) or a set of 'influences' (Aristotelian/Stoic), but it is up to each individual how they follow the path or handle the influences.
- The soul, or source of free-will, is then seen as outside the birth-chart.
- Astrology is removed from conflict with Christianity (the same solution is available in Islam)

# Consequence for Modern Astrology

- Question:
- Does the rhetoric of free will represent how astrologers actually think?
- (A question to be answered through ethnographic research)

# Consequence for Modern Astrology

- The issue of whether the soul is 'in' the birth-chart or 'outside' it remains a live one and is one of the major philosophical fault lines in modern astrology, if unrecognised by most practitioners.

# Planetary influences on a baby

Arundel MS 66 f.148

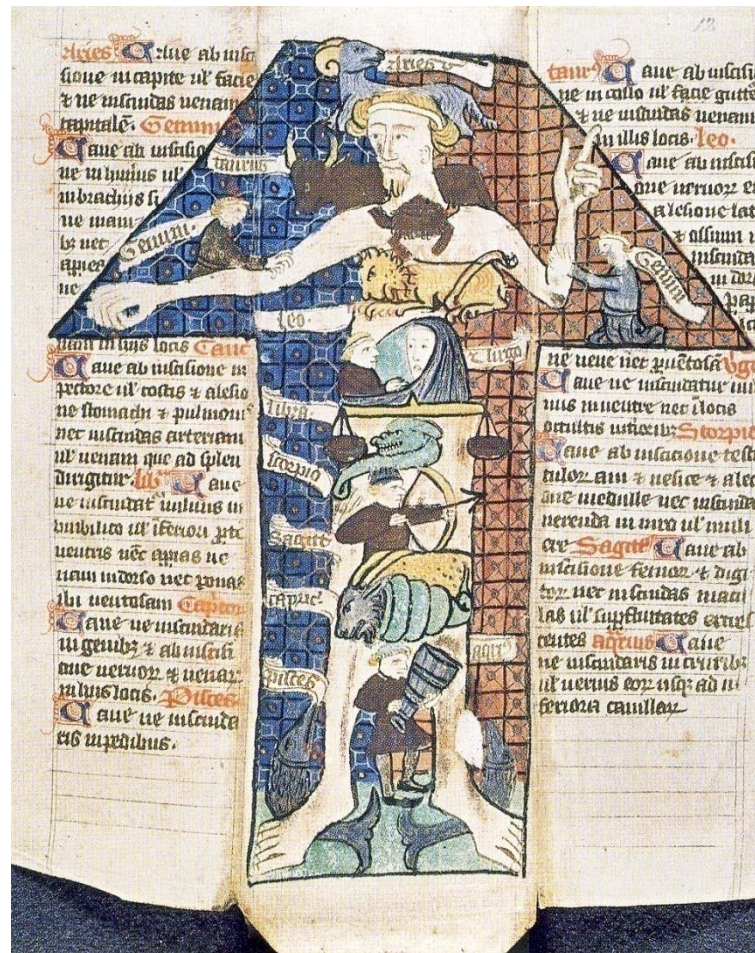


# To this we should also add

1. Alchemy: we are not covering alchemy specifically in this module but students are welcome to pursue this if they wish
2. Medicine
3. Magic
  - Magic 1: concerned with personal advantage
  - Magic 2: concerned with wisdom/  
communication with the divine

# Medical + the Body Politic

## Zodiac Man c 1399



# Medical

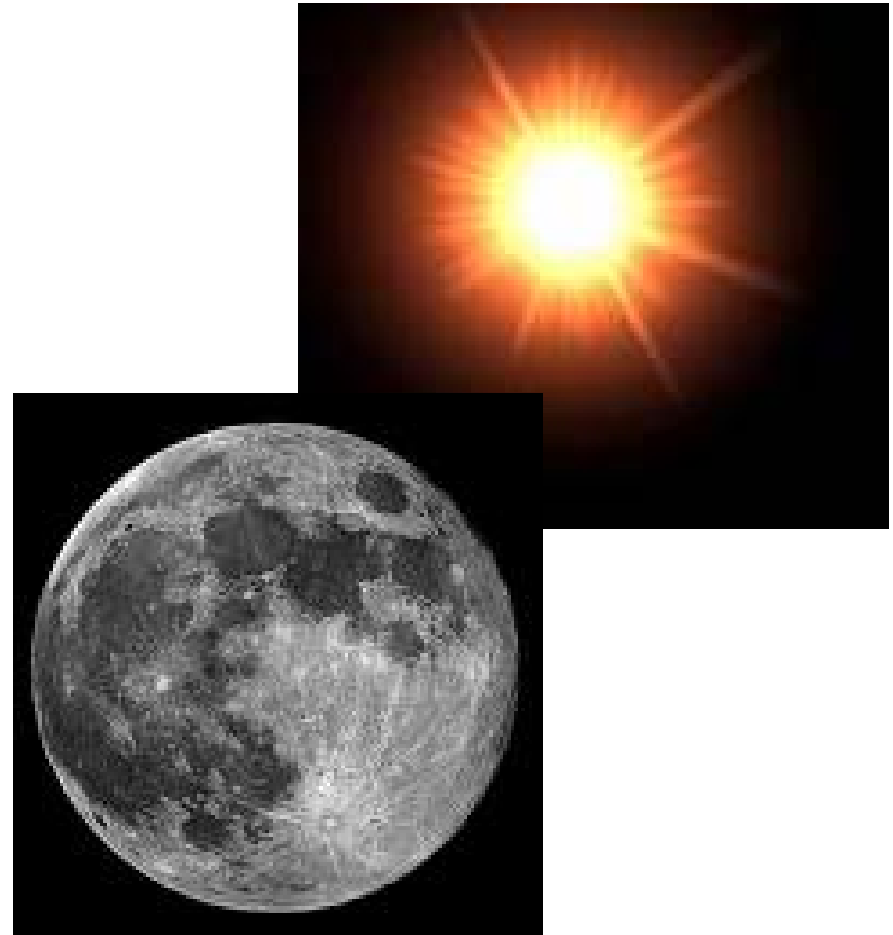
## Barbers Surgeons' Volvelle c. 1450

- 1. set the index of the sun (pointer at left) to day on outer circle of calendar disc.
- 2. set moon disc (missing) to day of moon on outer circle but one.
- 3. as long as you know the lunar day you can therefore find the moon's zodiac sign.
- At top John the Baptist and John the Evangelist. At bottom St Cosmas and St Damian, patron saints of medicine and surgery



# Cosmology: Questions and Answers

- In Genesis, how do the lights created on day 4 differ from light created on day 1?



# Cosmology: Questions and Answers

- Problem:
- According to Plato and Aristotle, to be still is to be perfect
- The Earth is still
- But the Earth is imperfect



# High Medieval Culture

- Was once considered to be intellectually stagnant
- This view is now out of fashion.
- The period is seen as intellectually vigorous, with an emphasis on philosophical inquiry
- Technical innovation: the mechanical clock