

Figure 2: “An Excellent Old Ballad, entitled,  
The Wandering Prince of Troy/To the Tune  
of, Queen Dido” (1750). London: n.p.

An Excellent Old Ballad, entitled,  
The Wandering PRINCE of TROY  
*To the Tune of, Queen Dido.*



## Northern Africa and the Middle East



# Al Idrissi's Map of the World (Tabula Rogeriana) (1154)





# From Chaucer's Prologue to The Canterbury Tales

Their friendship was not recently begun.  
He well knew the old Aesculapius,  
And Dioscorides, and also Rufus,  
Old Hippocrates, Haly, and Galen,  
Serapion, Rhazes, and Avicenna,  
Averroes, John the Damascan, and Constantine,  
Bernard, and Gaddesden, and Gilbertus (Lines  
428-434)



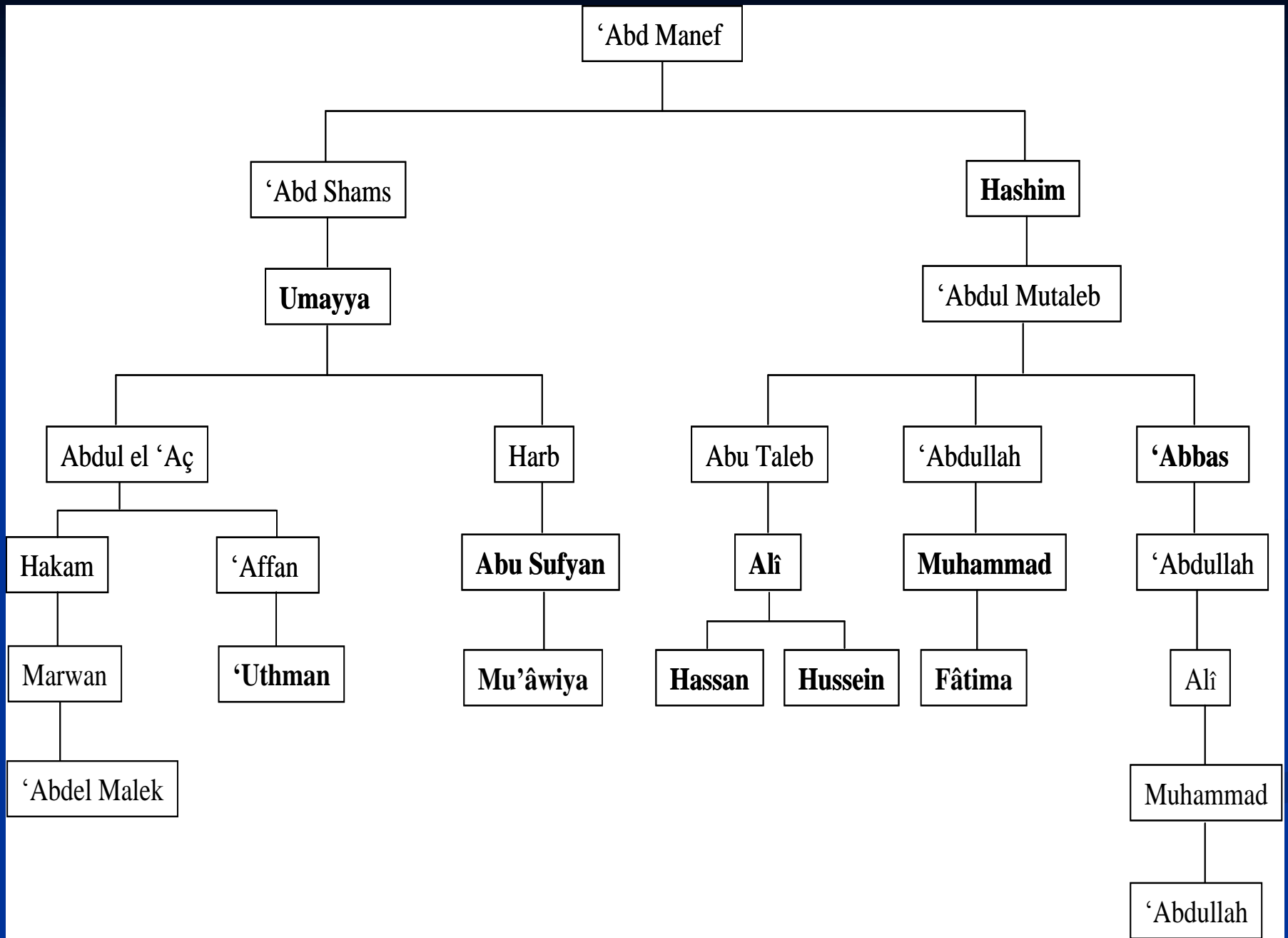
# Tertius operum Galeni Tomus.



**L**ib:orum principis medicorum  
Galeni, quos nuper insignes viri feli-  
cissimis translationibus illustrarunt  
Tomus, exquisitissima cura re-  
cognitus: Una cum indice re-

# Medieval Muslim Spain: A Historical Background







# The Umayyad Dynasty of Damascus (661-670)

- **Mu'awiya ibn Abi Sufyan**: Caliph of all Muslims.
- The Umayyads were overthrown in the east by the Abbasid dynasty after their defeat in the Battle of Zab in 750, following which most of the clan was massacred by the Abbasids. An Umayyad prince, **Abd-ar-Rahman al Dakhil**, took over the Muslim territory in Al Andalus and founded a new Umayyad dynasty there.

## Abd-ar-Rahman al Dakhil:

- Known as *Saqr Quraish* or The Eagle of Quraish.
- Grandson of Hicham ibn Abd al Malik, the tenth Umayyad Caliph.
- He fled to North Africa then to Mauritania.
- Invited to Spain by Emir Yusuf in 755.
- At war with Abbasid Eastern Muslim Empire.

# Umayyad Emirs of Cordoba (756-929)

- Abd ar-Rahman I, 756-788 Nicknamed: the
- Hisham I, 788-796
- al-Hakam I, 796-822
- Abd ar-Rahman II, 822-852
- Abdallah ibn Muhammad, 888-912
- Abd ar-Rahman III, 912-929



# **The Umayyad Caliphate of Cordoba (929-1031)**

Abd-ar-Rahman III (929-961)

16 Jan 929, declared himself the Caliph of Cordoba, breaking all ties with the Egyptian and Syrian Caliphs. His ancestors in Spain had been content with the title of emir or sultan.

The caliphate was thought only to belong to the prince who ruled over the sacred cities of Mecca and Medina.

The title gave him increased prestige with his subjects, both in Spain and Africa.

# Sciences and Arts of Muslim Spain

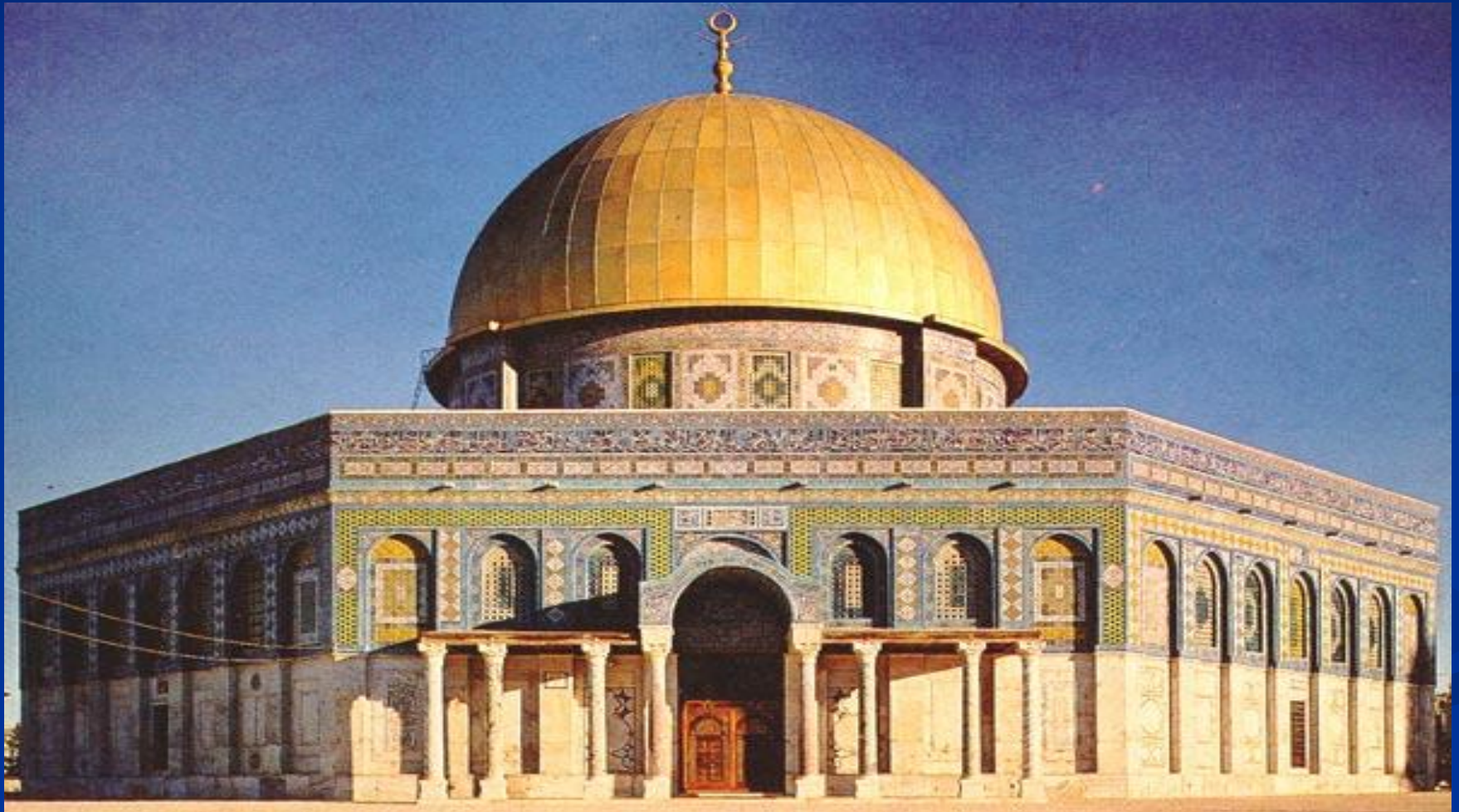
- Architecture: minarets, stone arcades in the shape of horseshoe arches.
- Sciences: Medicine, astronomy, physics, mathematics
- Music: Andalusian music consisting of Muwashahat.
- Literature

# The Umayyad Mosque, Damascus





# Dome of the Rock







# Alhambra Court





# Alhambra Fountain



# Bardo Palace/Museum, Tunisia



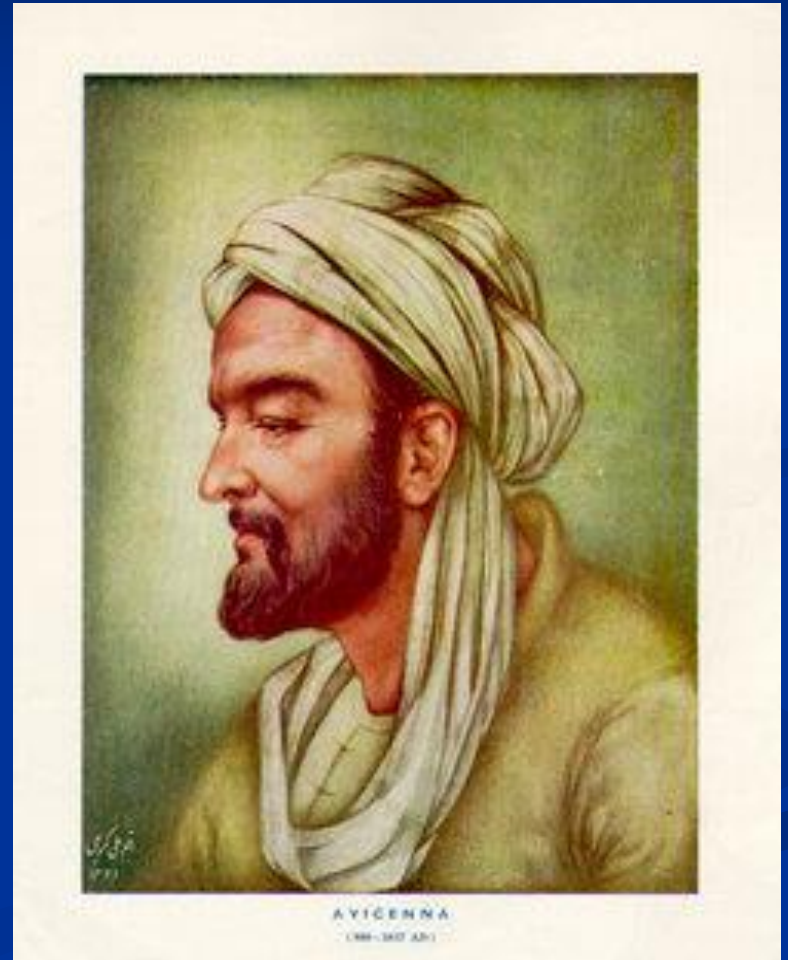


# “Islamic” Science in Chaucer’s *The Canterbury Tales*

With us there was a doctor of physic;  
In all this world was none like him to pick  
For talk of medicine and surgery;  
For he was grounded in astronomy.  
He often kept a patient from the pall  
By horoscopes and magic natural...  
Well read was he in Esculapius,  
And Deiscorides, and in Rufus,  
Hippocrates, and Hali, and Galen,  
Serapion, Rhazes, and Avicen,  
Averrhoes, Gilbert, and Constantine,  
Bernard and Gatisden, and John Damascene (Prologue)

# Ibn Sina (Avicenna): The Prince of Medicine

- Of Persian origin.
- from the 12<sup>th</sup> to the 17<sup>th</sup> century, Ibn Sina was the guide of medical study in European universities
  - *The Canon of Medicine*: Classification of diseases
  - *The Book of Healing*





- Diagnosed diabetes.
- Contagious nature of phthisis (tuberculosis)
- Mental illness including love sickness.
- The Arabic text of the Qanun (Canon) was published in Rome in 1593 and was therefore one of the earliest Arabic books to see print. It was translated into Latin by Gerard of Cremona in the 12th century.

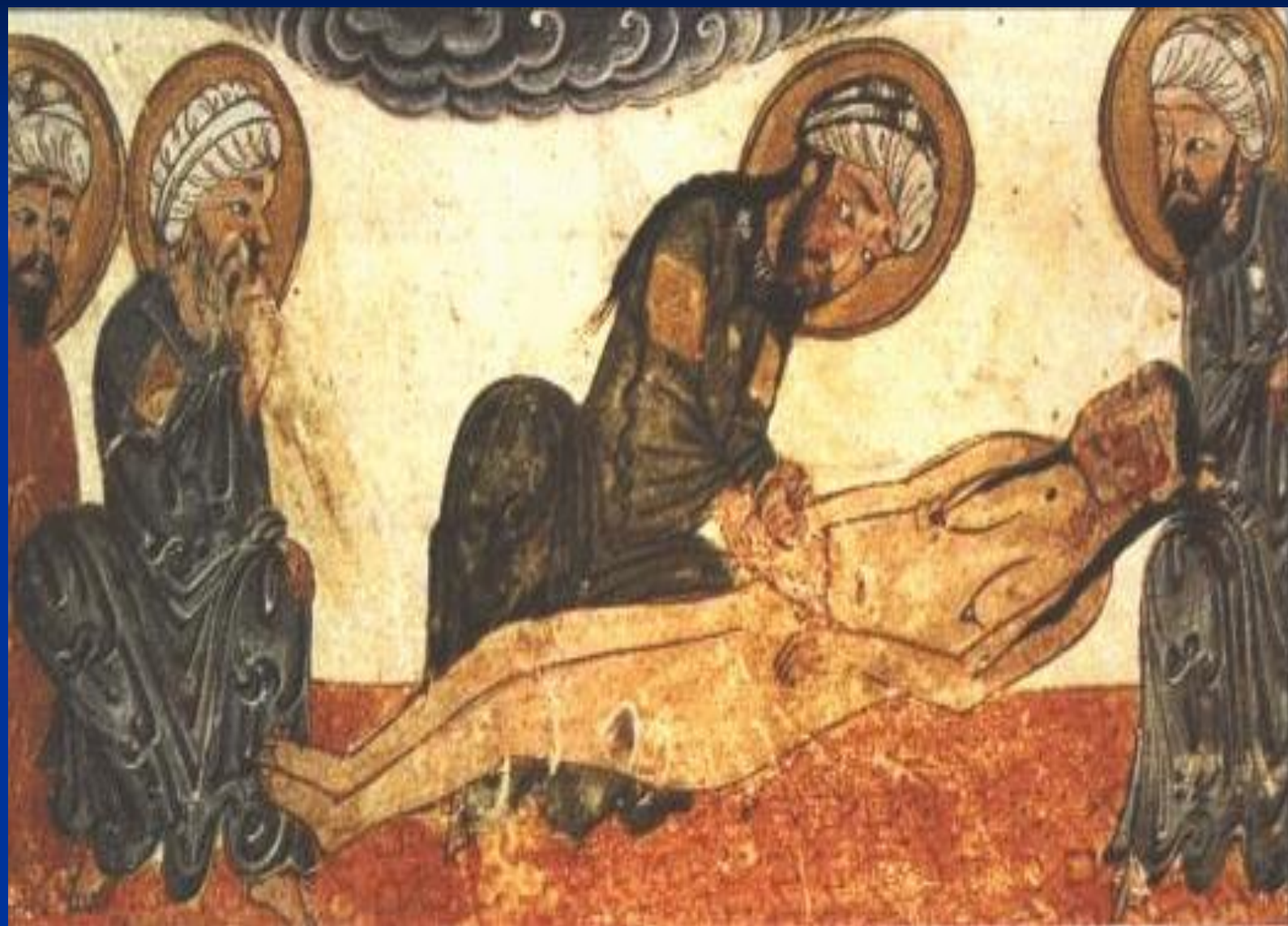
# Ibn Sina's Canon of Medicine



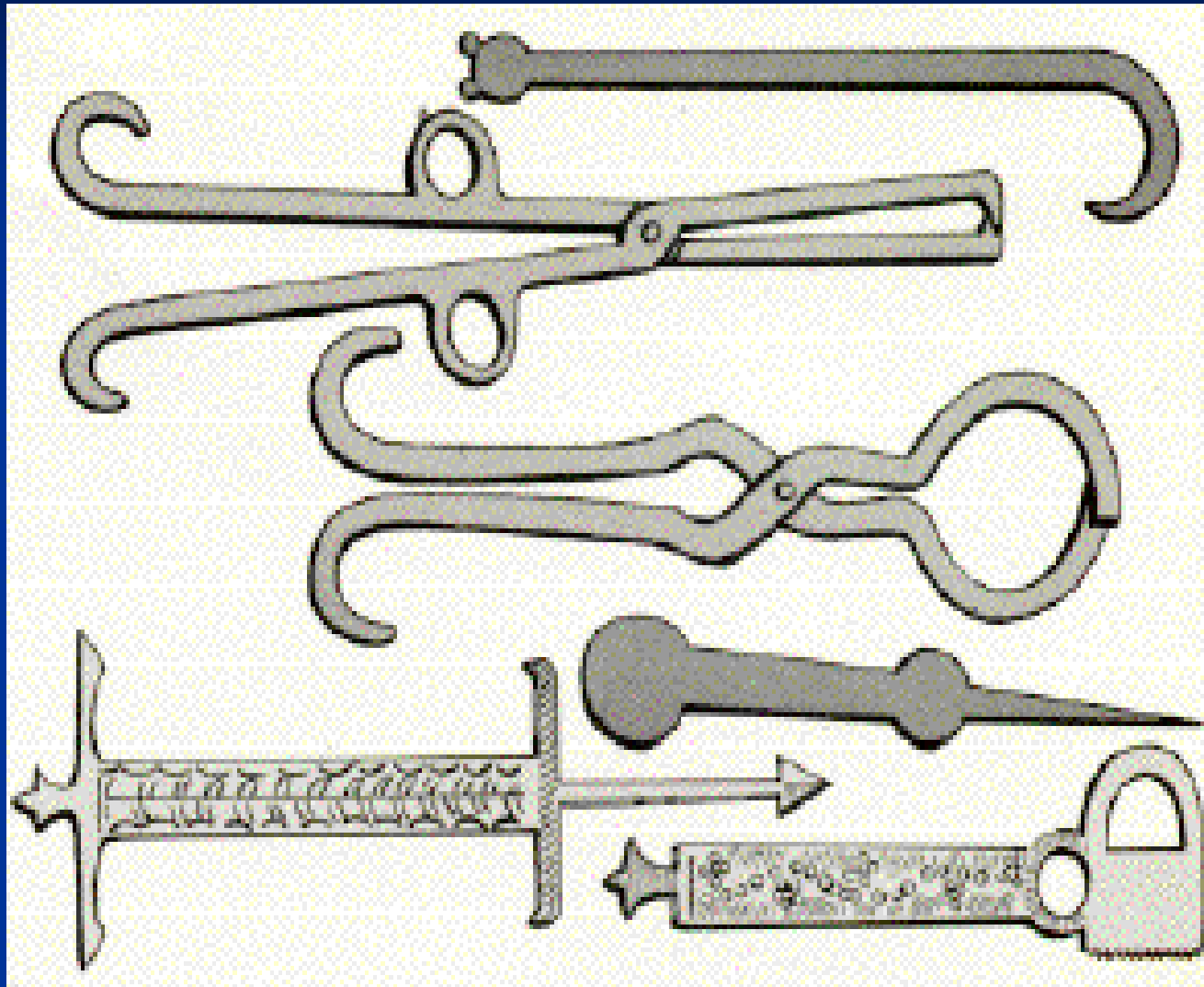
# Al Zahrawi or Albucasis (936-1013)

- Father of modern surgery
- Book: *At Tasrif*, illustrated practice of medicine and surgery.
- Created new surgical instruments
- In folio 145, he is the first to diagnose hemophilia: which he describes as a blood disease transmitted from mothers to their male children.









## **Ibn al Baytar: Botanist & Pharmacist.**

*Kitab al-Jami fi al-Adwiya al- Mufrada*, is one of the greatest botanical compilations dealing with medicinal plants in Arabic.

It enjoyed a high status among botanists up to the 16th century and is a systematic work that embodies earlier works, with due criticism, and adds a great part of original contribution. The encyclopedia comprises some 1,400 different items, largely medicinal plants and vegetables, of which about 200 plants were known earlier. It was translated into Latin and published in 1758.

# Mathematics and Geometry

- Al Khawarizmi

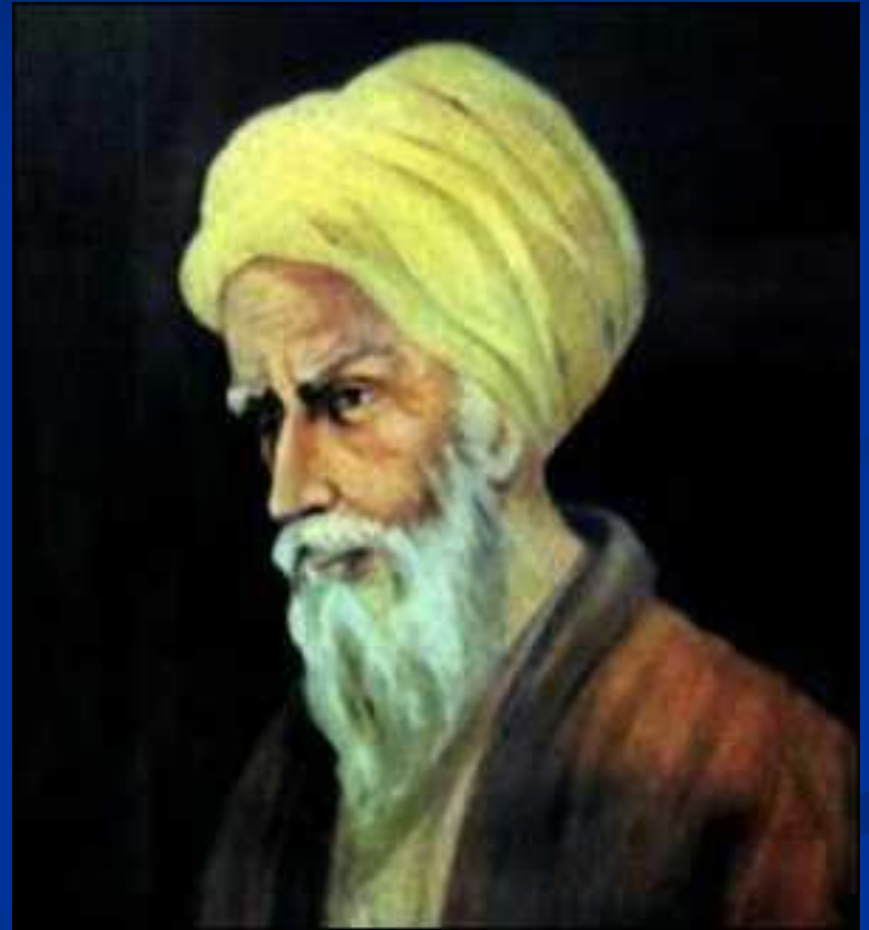
“Algebra” and “algorithm” are actually borrowings from Arabic words, that were later translated into Latin.

- Ibn al Haytham



# Ibn al Haytham (965-1039):

- His work included optics, mathematics, physics, medicine and development of scientific methods on each of which he has left several outstanding books.
- He revised Ptolemy's theory of optics.



# *Kitab al Manadhir, The Book of Optics*

The Latin translation of his main work exerted a great influence upon Western science e.g. on the work of Roger Bacon and Kepler. It gave way for further progress in experimental methods. His research in catoptrics centered on spherical and parabolic mirrors and spherical aberration. Ibn Al Haytham also made the important observation that the ratio between the angle of incidence and refraction does not remain constant and investigated the magnifying power of a lens.





# Ibn Rushd, Averroes (1126-1198)

- The medical school of the western Caliphate was both medically and philosophically antagonistic to Ibn Sina (1037) Avicenna, who is usually regarded as the chief representative of “Islamic” Medicine.



# Islamic Rationalist Tradition

- *On the Harmony of Religion and Philosophy*
- *On the Incoherence of Incoherence:*
- He wrote a treatise on the motion of the sphere,  
*Kitab fi-Harakat al-Falak*

- He studied religious law, medicine, mathematics, and philosophy and (according to Leo Africanus) he was a friend of Ibn Zuhr (Avenzoar), the great North African clinician. He studied medicine, philosophy and law from Abu J'afar Harun and from Ibn Baja (1138) and he learned 'Fiqh' (Islamic jurisprudence) from Hafiz Abu Muhammad Ibn Rizq.
- Judge and Physician in Seville and Cordoba

- Under the protection of Almohad prince Abu Ya'qub Yusuf, Averroes spent the rest of his life writing commentaries on virtually all of Aristotle's works, producing detailed and original reconstructive commentaries on Aristotle's Metaphysics, Physics, Posterior Analytics, De Caelo, and De Anima, as well as Plato's Republic.
- Ibn Rushd was appointed a judge (Cadi) in Seville at the age of forty-four. That year he translated and abridged Aristotle's book "de Anima" (Animals). This book was translated into Latin by Mitchell the Scott.



# Astronomy in Muslim Spain

**Abu-al-Qasim Maslamah al-Majriti** (of Madrid), the earliest Spanish Muslim astronomer edited and corrected the *zij* (planetary tables of al-Khwarizmi). Nicknamed Al Hisab, (Mr Mathematics by his contemporaries).

**Al-Battani**, was rendered into Latin by Plato of Tivoli. Copernicus later quotes al-Battani in his book *De revolutionibus orbium coelestium*.

**Al-Zarqali** (Arzachel in Latin): devised the *safihah*, a type of astrolabe, that proves the motion of solar apogee with reference to the stars.

# Muslim Astronomers



# Literature of Muslim Spain

- Ibn Arabi: *Bezels of Wisdom & The Interpreter of Desires. Divine Sophia/Dante's Beatrice*
- Ibn Zaydun, *The Ring of the Dove*, Islamic Poetics of Love.
- Ibn Tufayl, Hayy Ibn Yaqzan (Inspired Daniel Defoe's *Robinson Crusoe*)
- Ibn Khuldun's *Muqaddimah*, 1<sup>st</sup> philosophy of history
- Al Ghazali, Islamic Jurisprudence, philosophy, musicology. *Incoherence of Philosophers, Revival of Islamic Knowledge*



# Ibn Khuldun (1332-1406): First Historiographer





# Kitab al 'Ibar: History

- Written between 1374-77 when he settled down with the tribe of Awlad 'Arif in Algeria.
- Focuses on history of Arabs and Berbers.
- Book I is known as the *Muqaddimah* (Introduction)

# Ibn Khaldun's Historiography

- Born in Tunis.
- Descendent of a Moorish aristocratic family from Spain who immigrated to Tunisia before the fall of Sevilla in 1248.
- Studied theology, jurisprudence, Arabic lexicography, and Andalusian Aristotelian philosophy.
- Soldier & Statesman: Merinid Sultan of Fez; of Tlemcen; Muhammad al Ahmar, ruler of Granada; Grand Cadi of the Malikite Rite for Cairo.
- Lost his entire family in a shipwreck when they were coming to join him in Egypt.
- 1400 expedition to Damascus against the Tatar armies. He meets Tamerlane.

# *The Muqaddimah*

- First attempt to discover the laws of historical change, i.e. first philosophy of history.
- Denunciation of earlier methodologies: uncritical or based on superstition.
- Civil Society: definition of human society & and classification of human societies according to their crafts, arts, and sciences.
- Echoing Avicenna: “Man is political by nature.”

- Social cooperation leads to a complicated social process called *tamaddun* (urbanization).
- Because man is an animal, social organization can exist only if there is social justice.
- The person who guarantees this social justice and has influence on others is called *wazi*'.
- As soon as there urbanization is formed, there is '*umran* civilisation. 'Umran derives from an Arabic verb which means to build.



# How is cooperation created?

- Through '*asabiyah*': solidarity, group feeling, group consciousness.
- '*Asabiyah*' is more than race: it can be for people not related by blood. It is what the Ghanaian Anthony Kwame Appiah calls racialism in his book *In My Father's House*.
- The leader who enjoys the support of a sufficiently effective authority may succeed in founding a dynasty for himself and his family.

# State & Dynasty

- They mean the same thing for Ibn Khuldun.
- The word he uses for both is dawlah. A state exists only in so far as it is held together by the dynasty; when the dynasty disappears the state collapses.
- He uses examples from Umayyad, Abbasid, and Berber internal strife in the Maghreb to support his thesis.

# How do dynasties/states fall?

- Luxury: seed of decadence and disintegration.
- The desire of the ruling group to gain exclusive control over all the sources of power and wealth brings about a conflict between the dynasty and the men whose *'asabiyah* sustains it.
- When the dynasty resorts to military support from outside sources, and in order to raise the money necessary for this purpose (and for their luxuries) they impose more and more taxes.

- Gradually, the dynasty loses its grip over the reins of power becoming a ruler in name.
- If the outsider or his group commands a new *'asabiyah* of sufficient strength he may be able to supersede by founding one of his own.
- After displacing the old rulers, the new rulers retain the best habits and customs of the ousted dynasty.
- Ibn Khuldun rejects the view that former nations were better endowed for achieving a high civilization than contemporary nations.



# Andalusian Music

By the 11th century, Muslim Spain was a centre for the manufacture of instruments. These spread gradually through France, influencing French troubadours and reaching the rest of Europe. The English words lute, rebec, guitar, organ and naker are derived from Arabic 'oud, rabab, qitara, urghun and nagqara.

# Andalusian Musicology

Al Farabi

Ziryab

Abu Hamid al Ghazali

# Medieval Arabic schools of Musicology

- Andalusian School
- Zeriab
- Abu Hamid al Ghazali
- Eastern Caliphate
- Ibn Surayj and Ma' bad (Hijaz)
- Ibrahim & Ishaac al Mawsili (Bagdad)
- Al Farabi

# Musical Legacy

- Gharnati: Morocco
- Wahrani: Algeria
- Malouf: Tunisia
- Israel





# Mosque of Testour, b 1631





# Rabbi Yehudah Ha Levi

## (12 century Spain)

Abraham was an Aramaic of Ur Kasdim, because the language of the Chaldeans was Aramaic. He employed Hebrew as a special holy language and Aramaic for every day use. For this reason, Ishmael brought it to the Arabic speaking nations, and the consequence was that Aramaic , Arabic and Hebrew are similar to each in their vocabulary, grammatical rules, and formation. The superiority of Hebrew is manifest from the logical point of view.” (Kuzari, 268, 79)



*Gagou* (1988), an autobiographical novel by  
Guy Sitbon, a Tunisian Jewish and Arab writer:

- Did you live in an Arab country?
- No, I am an Arab.
- Oh, I thought you were a Jew.
- Of course.
- Let me understand: Are you a Jew or an Arab?
- I am both.
- Half and half?
- No, entirely one and entirely the Other (p. 101).

# Conclusion