

# Islam

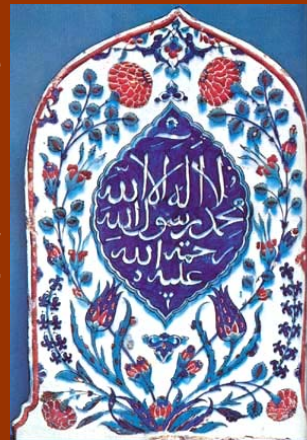
## Part 4

### Islam's Gifts to the World

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"Islam's major legacy to the world is the gift of its religion. That would have been quite sufficient by itself. But there are many other assets spawned by this cultural tradition which deserve recognition and which daily influence our lives." (I. Zepp, p. 139)

"Capital of the Muslim (and Arab) Empire, Baghdad was for several centuries the cultural center of the medieval Muslim world. Its brilliant intellectual life revolved around **Bayt al-Hikmeh** (House of Wisdom), an academy, library, museum, observatory, and translation center. Founded by the scholarly Caliph Mamoun in 830 A.D., the Bayt al-Hikmeh was the most important institution to be established since the Alexandrian Library in Egypt in the third century B.C." Arab World Studies Notebook, p. 273)



Many scholars believe that the main contribution of Muslims and Arabs to Western civilization was their “recovery and subsequent introduction to the West of ancient learning.” At the right you see a picture of Bayt al-Hikmah where hundreds of manuscripts were translated into Arabic from Greek, Persian, Sanskrit, and Syriac (a dialect of Aramaic, the language of Jesus). Had the priceless manuscripts been lost, "the world would have been as poor as if they had never been produced." (Phillip Hitti, *The History of the Arabs*, p. 363)



**The following are English words from Arabic**

admiral	check	mattress
adobe	check-mate	nadir
alchemy	cipher	racquet
alcove	(sifr=zero)	saffron
alfalfa	coffee	sash
algebra	cotton	satin
algorism	crimson	sherbet
alkai	damask	sugar
almanac	elixir	sumac
arsenal	gauze	syrup
atlas	gypsum	tambouri
average	hazard	ne
azure	jar	tariff
baroque	jasamine	traffic
barracks	lute	zenith
caliber	macabre	zero
candy	magazine	
cane	magnet	
carafe	marzipan	

**Foods introduced to the West by Arabs and Muslims:**

apricots  
 Artichokes  
 asparagus  
 bananas  
 Buckwheat  
 cherries  
 dates  
 eggplants  
 Figs  
 ginger  
 grapefruit  
 lemons  
 Limes  
 Oranges  
 Pomegranates  
 quinces  
 Rice  
 spinach  
 strawberries  
 sugar

## A spherical astrolabe

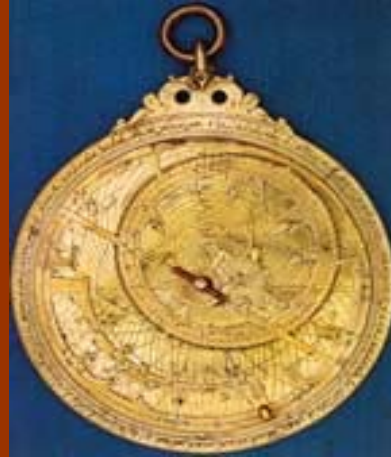


This spherical astrolabe is the only one known to exist, dated 1480. The large ecliptic circle bears the names of the signs of the Zodiac. The *rete*, or star map, is attached to the globe with pointers for 19 fixed stars.



This scientist is presumably using the astrolabe to measure the altitude of a star.

## The Astrolabe



The Astrolabe is one of the most important instruments used by early astronomers for measuring the altitude of heavenly bodies above the horizon, and so determining the time of the day or night. Readings are taken by means of a rotatable alidade, a diametrical rule with sights.



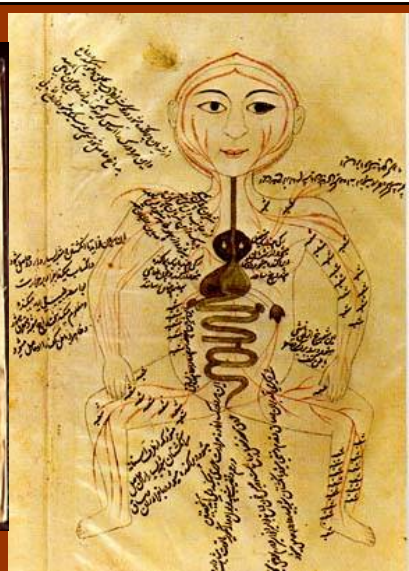
A map of the world (with north at bottom and south at top) by al-Idrisi from 1154.

## Medicine

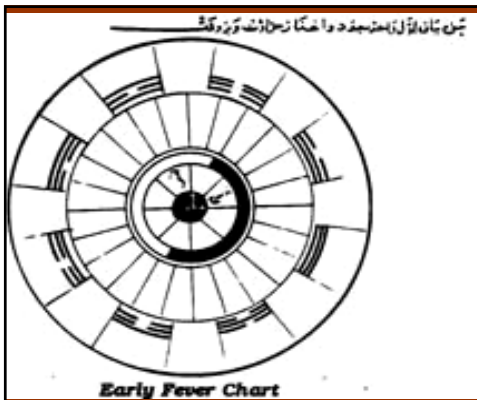
- › organized public health services, and doctors attended patients in hospitals, at home, in prison, and in rural areas.
- › used anesthesia in surgery;
- › cauterized wounds;
- › discovered that epidemics arise from contagion through touch and air;
- › endowed special institutions for lepers, the lame, and the blind
- › discover that fever was not a disease, but a result of the body's fight against disease;
- › Book of the Ten Treatises on the Eye by Hanayn ibn Ishāq, 9th century
- › carried ambulatory hospitals on a camel's back (a kind of eighth century MASH);
- › separated pharmacology from medicine and the writing of prescriptions.



Book of the Ten Treatises on the Eye by Hanayn ibn Ishāq, 9<sup>th</sup> century



Anatomical plate from a Persian Medical Treasury



Abu Bakr Muhammad al-Razi (865-925) has been called "the unchallenged chief physician of the Muslims." He wrote 100 major scientific works, including the first clinical account of smallpox. His enormous encyclopedia of medical wisdom was translated from Arabic into Latin in 1279 and was reprinted in Venice as late as 1542, almost 700 years after his birth.

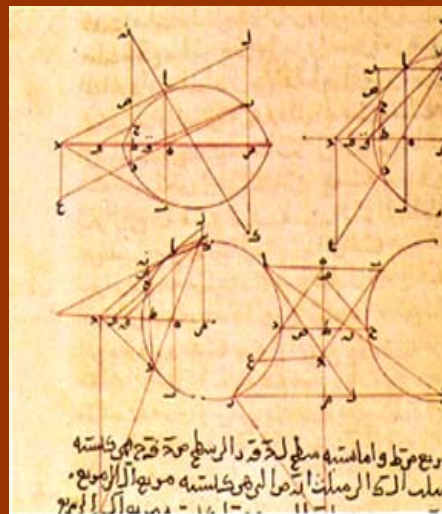


Illustration from a copy in Ibn al-Haytham's hand of Apollonius' Conics

## Other Scientists

- **Al-Khwarizmi** (780-850),
- **Ibn Sina (Avicenna)** (980-1037)
- **Ibn-Rushd (Averroes)** (12th century)
- **Ibn-Khaldun** (1332-1406)
- **Ibn-Battuta** (1304-1377)
- **Hassan Al-Wazzan or Leo Africanus**



**The Sufi Dancer or the Swirling Derwish**



# Architecture



# Calligraphy

