Rating:

Description: The second lesson on the 'Golden Age' of Islamic sciences and the contributions of Muslims to our civilization.

Category: [Lessons](#) › [Social Interaction](#) › [The Muslim community](#)

By: Imam Mufti (© 2015NewMuslims.com)
Published on: 14 Dec 2015
Last modified on: 25 Jun 2019

Objectives

- To learn about the institutions build by Muslim civilizations.

- To learn about Muslim contributions to education, building libraries, environmentalism, geography, mathematics, and chemistry.

Arabic Terms

- *Ummah* -Refers to the whole Muslim community, irrespective of color, race, language or nationality.

Quotation on Muslim Contribution to Civilization

"…*the civilization I'm talking about was the Islamic world from the year 800 to 1600, which included the Ottoman Empire and the courts of Baghdad, Damascus and Cairo, and enlightened rulers like Suleiman the Magnificent. Although we are often unaware of our indebtedness to this other civilization, its gifts are very much a part of our heritage. The technology industry would not exist without the contributions of Arab mathematicians. Sufi poet-philosophers like Rumi challenged our notions of self and truth. Leaders like Suleiman contributed to our notions of tolerance and civic leadership. And perhaps we can learn a lesson from his example: It was leadership based on meritocracy, not inheritance. It was leadership that harnessed the full capabilities of a very diverse population–that included Christianity, Islamic, and Jewish traditions. This kind of enlightened leadership — leadership that nurtured culture, sustainability, diversity and courage — led to 800 years of invention and prosperity.*" - Carly Fiorina, former CEO of HP, in a speech given in Minneapolis, Minnesota on Sep 26, 2001 "Technology, Business, and Our Way of Life: What's Next".

Institutions

A number of important educational and scientific institutions previously unknown in the ancient world have their origins in the early Islamic world, with the most notable examples being: the public hospital (which replaced healing temples and sleep temples) and psychiatric hospital, the public library and lending library, the academic degree-granting university, and the astronomical observatory as a research institute as opposed to a private observation post.

Education

The first universities which issued diplomas were the *Bimaristan* medical university-hospitals of the medieval Islamic world, where medical diplomas were issued from the 9th century to students of Islamic medicine who were qualified to be practicing doctors of medicine. The Guinness Book of World Records recognizes the University of Al-Karaouine in Fez, Morocco as the oldest degree-granting university in the world with its founding in 859 CE. Al-Azhar University, founded in Cairo, Egypt in 975 CE, offered a variety of academic degrees, including postgraduate degrees, and is often considered the first full-fledged university. The origins of the doctorate also dates back to the *ijazah at-tadris wa al-ifta* ("license to teach and issue legal opinions") in the medieval Madrasahs which taught Islamic law.

Libraries

The library of Tripoli is said to have had as many as three million books before it was destroyed by Crusaders. The number of important and original medieval Arabic works on the mathematical sciences far exceeds the combined total of medieval Latin and Greek works of comparable significance, although only a small fraction of the surviving Arabic scientific works have been studied in modern times.

Environmentalism

Early proto-environmentalist treatises were written in Arabic by al-Kindi, ar-Razi, Ibn al-Jazzar, at-Tamimi, al-Masihi, Avicenna, Ali ibn Ridwan, Abd-el-latif, and Ibn al-Nafis. Their works covered a number of subjects related to pollution such as air pollution, water pollution, soil contamination, and municipal solid waste mishandling. Cordoba, al-Andalus also had the first waste containers and waste disposal facilities for litter collection.

Muslim scholars did not concentrate on just one subject as many do today. Abu Rayhaan al-Bairuni (born in 973 CE), was an astronomer, mathematician, and a student of life sciences from the 11th century Uzbekistan, also famous for his world travels.

He mastered the **Sanskrit** language and wrote a book on India! He also wrote a biography of ar-Razi. Al-Bairuni himself was writing a book on pharmacology when he was eighty!

Geography

Al-Mas'oodi, a 10th century Muslim geographer and historian, travelled to Baghdad, India, China, and other countries of the world, describing the people, climate, geography, and history of the places he visited.

Muslim invented the compass and al-Fargaani, known in the West as Alfraganus, estimated the circumference of earth to be 24,000 miles. Muslims were the first to use a pendulum and build observatories!

Mathematics

Muslims transferred the "zero" digit from India to the world.

Al-Khawarizmi wrote the first book on linear and quadratic equations, called Algebra.

Chemistry

Muslims developed chemistry as a separate branch of science. The word chemistry itself is derived from the Arabic word, *al-keemya*. Jabir ibn Hayyan is known as the 'father of chemistry.' He discovered several minerals and prepared acids like sulphuric acid for the first time.

It is the negligence of the Muslims and not any deficiency in the teachings of Islam that has caused our present state of decay.

We must have the will to learn and progress and to become scientifically and economically sufficient. But, the important matter is that we remain Muslims. We should not exchange the spiritual civilization of Islam for the materialism of the West.

We should, for one, take pride in being Muslims and being part of this *Ummah* and the rich Islamic heritage. Second, we should follow the footsteps of the great Muslim scientists and scholars and lead the world once again.