# Scientific achievements during the "Dark Ages"

**Posted by Zafar Siddiqui**
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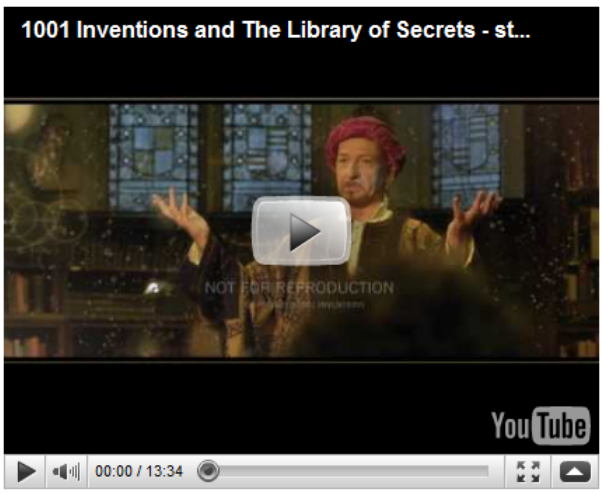
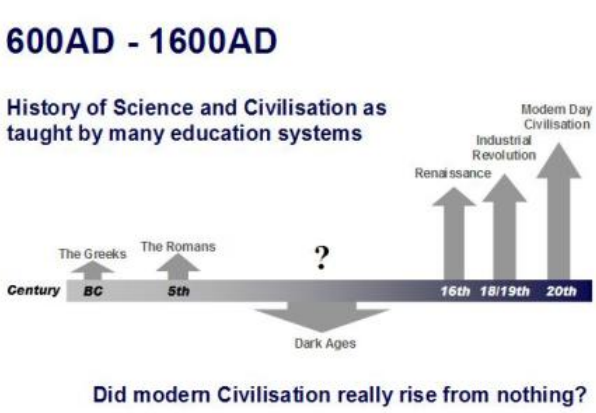



(***1001 Inventions and The Library of Secrets*** - starring Sir Ben Kingsley)

Last week I attended an Islam Awareness Week seminar at the University of Minnesota titled "Islamic Contributions to Science." Dr. Salman Waheeduddin, an IRG speaker and a Twin Cities physician, led the audience through the scientific achievements that took place during the period that is commonly referred to as the "Dark Ages." Here is a brief summary of the presentation.

Dr. Waheeduddin started out by observing that if we pick a book on the history of science and civilization we will most likely find a jump from Greek thought and science to the Renaissance. This gap of 800-1000 years is often skipped as the European Dark Ages. In modern books, this period is at best treated as a period in which the Arabs transferred Greek knowledge to Europe.




## Zafar Siddiqui

Interfaith Leader, Educator

Zafar Siddiqui is the president of the Islamic Resource Group (IRG), an educational outreach organization dedicated to building bridges between Muslims and people of other faiths. He serves on the advisory board of the Muslim Christian Dialogue Center (MCDC) at the University of St. Thomas. Read more about Zafar Siddiqui.

According to the speaker, the real story is much different and more exciting. From the 7th to the 14th and perhaps even to the 15th centuries, scientists from the Islamic world dominated major fields of study. Islamic science spurred forward by a rational and reflective religious outlook, rapid development of Arabic, official patronage and globalization into the first universal scientific tradition. Muslims and non-Muslims, Arabs and non Arabs, 'clergy', scholars and laymen all had access to this tradition. It jump started a scientific process that had stagnated, particularly in the Mediterranean region. This scientific wave gave rise to a method that required confirmation of a hypothesis based on observation and data, which remained the dominant theme of the Islamic science. Their observations and methods provided the building blocks for European Renaissance.

Dr. Waheeduddin drew the attention of the audience to the genesis of this spurt in scientific advancement in a region that had not witnessed anything similar before. According to him, this story begins in Mecca where Prophet Muhammad received the first revelation of the Quran: "Recite in the name of your Lord who created. Created man from a clinging substance. Recite, and your Lord is the most Generous. Who taught by the pen. Taught man which he knew not.."

This was a revolutionary message in a society that was more concerned with their tribal affairs than scholarly work. It was also an effective message because within a few decades the Arabic language was capable of technical sophistication. The Quran called for reflection and pondering about the natural phenomenon. The natural and supernatural phenomena were interpreted as signs of God's attributes and that follow laws set by God. With the translation movement starting in the 7th century, the Arabic language had become the universal scientific language by the 9th and 10th century.

Dr. Waheeduddin listed the contribution of Muslim scientists to math, medicine, chemistry, astronomy, physics, cartography, agriculture, etc.

Dr. Waheeduddin concluded that, in summary, the Islamic scientific enterprise was the first global and universal scientific tradition and that it marked a shift from ideas to experimentation i.e. the birth of the modern scientific method. It formed the conceptual and experimental link between antiquity and science during the Renaissance period and was spurred by religious tradition.

Please refer to Muslim Heritage and 1001 Inventions websites for an in depth study of the Islamic contributions to science.