

Scientific heritage of Muslim world on display in London

A few months ago an exhibition was opened at the Science Museum in London explaining the contributions the Islamic world has made to science, arts and technology.

The "1001 Inventions" exhibition, the purpose of which is to shed light on the ways in which scientific achievements by the Muslim world have left their mark on contemporary civilization, has been displayed in many parts of the UK and will be open to visitors in London through the end of June. On display are inventions revealing the scientific activities that took place in the Muslim world since the seventh century, focusing in particular on

what is known as the Islamic Golden Age from the eighth to the 13th centuries. This golden age in science, culture, arts and technology in the Muslim world corresponded to the Dark Ages in Europe and gave birth to the Renaissance.

One of the most striking pieces in the exhibition is the five-meter-high replica of the "elephant clock," which was designed by Arab polymath al-Jazari in 1206. The elephant clock, which resembles a large clock tower, functions using water technology. The inventions of scientists based in modern day Turkey such as al-Jazari, Piri Reis, Mimar Sinan, Taqi al-Din Muhammad ibn Ma'ruf, Lagari Hasan Çelebi and Matrakçı Nasuh have an important place in the exhibition.

The exhibition was an initiative of the Foundation for Science, Technology and Civilization (FSTC). Explaining that the period that is known as the Dark Ages was actually a time when China, India and the Arab world made major progress in science and culture, FSTC Chairman Salim al-Hassani said discoveries that established the foundation for contemporary mathematics, chemistry and physics were made during that period. Al-Hassani pointed out that over 150,000 people had visited the Science Museum in the span of 10 days to see the exhibition, which highlights the scientific advancements that the world acquired from Muslim civilizations.

Noting that the exhibition appeals to Turkish visitors as well, al-Hassani said the contributions Turks have made to the world of science include rocket-powered flights, one of the oldest surviving detailed maps of the American continent and the idea of immunization. Highlighting that geniuses such as al-Jazari, Taqi al-Din and Sinan lived in what is now Turkey, al-Hassani said the industrial revolution may not have been possible if it weren't for Taqi al-Din. Noting that Sinan's impact can be seen in European capitals, al-Hassani said exhibition will introduce these and other eye-opening facts to a wide audience.

Al-Hassani provided interesting information about the elephant clock invented by al-Jazari and said the invention shows how different civilizations contributed to the development of society. Pointing out that even though elephants were not common in the region where al-Jazari lived, he built his water clock on top of an elephant, al-Hassani describes the invention as a "civilization clock," adding that the elephant represents the Indian civilization, the water work wrapped around the elephant represents ancient Greece, the robots with the turban and Arab clothes represent the Muslim world, the phoenix on top of the castle represents the Egyptian civilization and the dragon that moves up and down symbolizes China.

The father of photography

Among the most popular items in the exhibition is Alhazen Ibn Haytham's 11th-century invention known as the "camera obscura," which shed light on contemporary optical science. Alhazen, who has been dubbed the father of photography by some circles, is one of the thousands of scientists who contributed to the fields of science, culture and art in Europe.

Alhazen studied optics and was the first scientist to experiment with optical devices in a dark room. The understanding of the camera obscura was passed on to Europe through his work. This experiment consists of the passage of light through a small hole in the wall of a dark room resulting in an upside-down reproduction of an external scene on the opposite wall of the room. Alhazen's invention was revolutionary.

The exhibition is divided into seven different zones named home, market, school, hospital, town, world and universe. The exhibition features the sailing boats built by Chinese mariner Zheng He, an energy saving Baghdad home, a three-meter-long world map created by Muhammad al-Idrisi and many surgical tools.

The "1001 Inventions" exhibition, which has opened its doors to visitors in many parts of England, was on display in the UK Houses of Parliament in 2008 and at the Museum of Science and Industry in Manchester in 2006, with the support of the Organization of the Islamic Conference (OIC) General Secretary Ekmeleddin İhansoğlu. With the hope of encouraging younger generations to become interested in science, the exhibition has been designed to be educational and entertaining. The current exhibition is free of charge and will be open until June 30. The inventions are expected to be displayed in Turkey as well.

Turkish scientists the majority

Sinan's impact on architecture is particularly visible in the "1001 Inventions" exhibition in the Science Museum in London. Complexes, schools and bridges built by Sinan not only left an impression on Ottoman architecture but also had a significant impact on Europe. The map of Reis, which is one of the oldest maps showing the American continent, is among the most interesting and important items on display. Drawn by Reis in the 16th century, the map shows the western coasts of Europe and Africa, the eastern coast of South Africa and the American continent.