Meet Men and Women Scholars from Muslim Civilisation

Ibn al-Haytham

Eleventh-century scholar Alhazen, Ibn al-Haytham was a pioneering scientific thinker who, inspired by observing light working on a dark room, developed experiments which led him to make major breakthroughs in understanding light and vision.

His work in optics, compiled around 1027 while he was in Egypt, later, European scholars drew on the book's Latin translations.

Born in Basra around the year 960, Ibn al-Haytham not only changed people’s understanding of how we see, but he laid the foundations for experimental science. He died in Cairo in around 1040.

Al-Jazari

Al-Jazari was an early 12th-century engineer from Diyarbakir, south east Turkey. His most distinguished work was The Book of Knowledge: Hawkins Mechanical Devices which described 58 machines, He used technical terminology, and provided manufacturing instructions.

Al-Jazari was fascinated by every kind of mechanism, designing elaborate clocks, water-powered devices and even an automated hydraulic hand. His greatest legacy in the application of the ‘Diyal’ or connected-chamber system crucial to pumps and engines.

Al-Zahrawi

Sculpted and stored, drills and forceps: in 10th-century Spain a surgeon called Al-Zahrawi developed and used many of the instruments we still know today. He took up his findings in a medical encyclopedia called Al-Tasrif.

Al-Zahrawi’s book illustrates surgical instruments. He listed over two hundred tools, stemming directly from Roman and Persian sources. Some instruments were创新, such as the introduction of a surgical saw.

Although surgery was still dangerous and painful, particularly for women, Al-Zahrawi’s work helped to raise awareness of medicine and surgery, including those diseases, tumours, bladder stones and wounds, as well as surgery to deal with them.

Sinan

A staggering 477 buildings were designed and built by Sinan during his long career under three sultans in Turkey during the 16th century.

His Selimiye Mosque in Edirne has the tallest, most sculptural onion dome in the whole of Turkey. His Selim/Respect Mosque had a prayer room to greet the smoke from the numerous fireplaces that were repeated in the atmosphere. The collected dust was then used as dye.

Maryam al-Astrubaliya

Maryam, daughter of Al-Kh, Al-Astrubaliya, was born in 344 in Syria. She was one of the first women physicians. The women of the 16th century, she took up the trade of midwifery following, including astrology, for which she is remembered today.

Fatima al-Fihriya

Many women supported the intellectual work during Muslim civilisation, for example in financing schools, hospitals, and other foundations.

Fatima al-Fihriya was a young woman from Faz, Morocco. When her husband died in 859, she and the ten million dirhams from his inheritance built the first great mosque, which she supported with a madrassa. An Al-Qarawiyyin.

Completed in 859, Al-Qarawiyyin soon developed into a centre for religious instruction and education, gradually extending its education to include the natural sciences, and so it earned its name as one of the earliest universities in history.

Zheng He

Zheng He, also called Cheng Ho, was a 15th-century Muslim Chinese admiral who led seven epic world voyages in the largest wooden ships ever built. Although only under twenty vessels, records of the ships show they could hold hundreds of crew and large cargo of silk, porcelain, gold and other goods.

Described as ‘Roaring Cities on Waving Dragons’, his huge wooden ships were some 137 metres long.

During the seven voyages, which took place over periods of 28 years, vessels of Zheng He’s ships sailed 27 countries throughout Asia, the Middle East and as far as East Africa. He brought back exotic species like the giraffe, along with plants from many of the nations with whom he traded and made diplomatic links.

A golden age of discovery flourished from the seventh century until the sixteenth century in the Muslim world. During this period, scholars of various faiths and cultures built and improved upon the knowledge of ancient civilisations, making breakthroughs that helped pave the way for the European Renaissance.

Great men and women of the past – mathematicians, astronomers, chemists, physicians, architects, engineers, economists, sociologists, artists, artisans, historians, geographers, and educators – worked together to improve society in ways that still impact our world today.

Find out more about the Giants of Muslim civilisation in the flagship book ‘1001 Inventions: The Enduring Legacy of Muslim Civilization’

1001 Inventions

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