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What Islamic Golden Age Thinkers Discovered Long before the West

Sure you've heard of Copernicus, Fibonacci and Fermat. But what about Ibn al-haytham, al-Birūnī, al-razi – the often uncredited Islamic Golden Age scholars who inspired and informed their discoveries?

Our interactive infographic charts the discoveries, inventions and scientific breakthroughs of the Islamic Golden Age and beyond versus their comparative date of 'discovery' by the West.

It's an adaptation of a 3 metre high interactive created for an [2018 Information is Beautiful exhibition](#) at the [Qatar National Library](#).

Highlights

- » **Astronomy** Persian polymath [Nasir al-Din Tusi](#) was first to put the Sun at the centre of the solar system, 940+ years before Copernicus. He also surmised that the Milky Way was composed of millions of stars (later confirmed by Galileo in 1610)
- » **Mathematics** Egyptian number-cruncher [Ibn Aslam](#) free-wheeled with indeterminate problems, irrational co-efficients and geometric proofs in 890AD, 300+ years before Fibonacci drew uncredited 'inspiration' from his work.
- » **Clinical trials** Persian polymath [al-Razi](#) performed the first controlled medical trial in 890AD, some time before John Haygarth in 1799.
- » **Surgery** Spanish physician [Ibn Zuhr](#) developed techniques for removing cataracts and kidney stones, at least 700 years before the West. Thankfully, around 975AD, a fellow scientist al-Zahrāwī had pioneered the use of inhaled anaesthesia to put his patients into a painless sleep during surgery.
- » **Geography** New evidence shows that 11th century Iranian thinker [al-Biruni](#) proposed the existence and size of America, some 400 years before Columbus.
- » **Physics** Arab mathematician [ibn al-Haytham](#) discovered the theory of 'least time' (the path taken by a ray of light between two points is always the path that can be traversed in the least time) 650 years before it became Fermat's Principle.
- » [See the data](#) for a complete list
- » Have we missed any? [Get in touch](#)

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Sources: 'The House of Wisdom' by Jim al-Khalili, 'Lost History' by Michael Hamilton Morgan, [Internet Encyclopedia of Philosophy](#), [Encyclopedia Britannica](#)

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Data: [View the data](#)

Topics: [Ideas & Perception](#)

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