

Local History: The Centre of the Universe

In 1731 Isaac Leach, 'Master of the Charity School in Alton', published a 103 page text in which he argued that the generally agreed idea that the Earth rotated around the Sun which had been put forward some two hundred years previously by Nicholas Copernicus, was wrong.

It is well known that the cycles of day and night on Earth and the constant apparent size of the Sun point to circular orbits of these two bodies. We are also aware that the constant brightness and appearance of the Sun suggests that the spin of the Sun is unimportant.

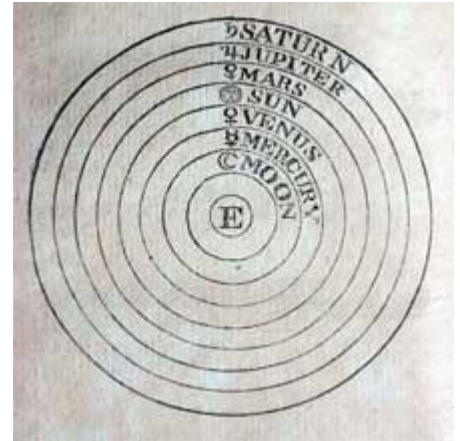
The day and night cycle and the evidence of Foucault's pendulum confirms that the Earth spins with a period of one solar day. So what observation allows us to choose between the idea of the Earth rotating around the Sun (the heliocentric model) or vice versa (the geocentric model)?

Very simply, if the position of a planet, Mars for example, is plotted over a period of time its path is not uniformly in one direction. Occasionally it appears that it reverses its direction for a while before returning to its original course.

This would be very odd if the Earth was stationary and the Sun and all the other planets travelled around it. The heliocentric model offers a far more understandable explanation of this so-called retrograde motion as it is caused by a combination of two circular orbits.

Isaac Leach obviously didn't agree with these ideas and wrote his book putting the Earth at the centre of the universe to which at least 160 people, including several locally recognised names, subscribed.

Although Isaac is described as 'Master of the Charity School in Alton', there is no evidence that he was the headmaster of Eggar's Grammar School, or of Andrew's School in Holybourne.



Isaac Leach's preferred option



The generally accepted arrangement of the planets, but rejected by Leach



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WHY THIS LONG STORY?

A few years ago the County Museums Service acquired a copy of the book *A New Enquiry of the Earth's Motion*, London, 1731, and sold in Alton by W Cranston, Bookseller. Formerly in the collection of William Wickham, the book has been politely described as '*an eccentric work*'.