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Editorial

Astronomy and Christianity in China

The meteoric rise of China both economically and in the fields of science and technology prompts us to consider how Western science came to that country historically. I focus here on the arrival of astronomy with the Jesuits at the beginning of the seventeenth century, since the story provides an important example of science and the Christian faith going out to the world hand in hand.¹

Matteo Ricci, the first and most famous of the Jesuit missionaries in China, and an astonishing polymath, arrived in Beijing in 1601. He had been taught astronomy in Rome by Christopher Clavius, the last defender of the Ptolemaic system. It was, however, with remarkable rapidity that Galileo's observations, published in 1610, became known. They were appended to a work published in China as early as 1615.

Following the failure of the imperial court astronomers to predict eclipses in 1613 and 1629, calendar reform was handed over to the Jesuits, who wrote to Rome for reinforcements of mathematicians, books and instruments. They used the Tyconic system, according to which the five planets orbit the Sun, whilst the Sun and Moon orbit the Earth. Their main criterion was the accuracy of the system, rather than the cosmological system per se, and Tycho's could be verified by observation.

The crucial point is that it was the accuracy of their calendrical calculations, and so the acceptance of their science, which was decisive in winning the Jesuits their position at the Imperial Court. In particular the Kangxi Emperor confirmed their position in 1669 and promoted Western science. Armillary spheres and other instruments built by the Jesuits at this period are to be found today at the Imperial Observatory in Beijing and are well worth visiting.

The Jesuits' work in astronomy, mathematics and other sciences, was no mere academic pursuit. The indigenous Chinese astronomers had misjudged the times of the seasons, with devastating effects on crops, since ploughing, sowing and reaping were all ritual acts performed on days dictated by the Astronomer Royal. The Jesuits' revised calendar was thus vital for agriculture in predicting the cycle of the seasons, and so had a direct effect on feeding the people. Science, religion and technology were all interacting in this fascinating episode in Chinese history.

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¹ For a full account see Standaert, Nicolas (ed.), *Handbook of Christianity in China, Vol I, 635-1800*, Leiden, Boston, Köln: Brill (2000).