4.7 Jesuit Astronomy and its Role in the Legitimation of Imperial Power in the Early Stages of the Qing Dynasty

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Technical Explanation of European Astronomy, translated by the Jesuit Matteo Ricci and his Chinese collaborator Li Zhizao (ca. 1610–1620)

Christopher Clavius (1538–1612) was a native of Bamberg, one of the architects of the Gregorian calendar reform and ranked among the most respected astronomers in early modern Europe. His works did not only circulate widely in European astronomical circles,

but also contributed to an important calendar reform in early modern China. Holding a key position as a teacher at the "Collegio Romano", where most of the Jesuits assigned to the overseas missions were educated, his scriptures and ideas were carried to China in the wake of the Jesuit attempts to proselytize the Chinese elites indirectly via the prestige of science and technology. Already occupying prominent positions at the Chinese Imperial Astronomical Bureau (notably Johann Adam Schall von Bell (1592–1666) and perceiving the native Chinese astronomical tradition as "backward", the Jesuit astronomers played a significant and controversial role in the so-called "calendar case" concerning the reform of the Chinese calendar which was an important tool for statecraft as well as a highly sensitive political institution.

Against this background, the talk will highlight the contribution of Jesuit calendrical science to the legitimation of imperial rule after the violent Manchu conquest and the subsequent dynastic transition (Ming \rightarrow Qing) in 1644. It is important to note that in this context of cultural entanglement, the corpus of Jesuit science underwent a dynamic process of reception, selection and appropriation by which it was translated and re-shaped, creating a hybrid body of knowledge specifically located in the temporal, social and cultural milieu of early modern China. By examining the ways in which mathematical/ astronomical knowledge and state power interacted, this talk treats the hybrid European-Chinese astronomy and its astrological implications as a highly political institution which was at the heart of a multi-faceted conflict involving factional politics that influenced the production of knowledge. Further, it is taken into account that a great deal of what nowadays would be characterized as "scientific inquiry" was supported by the Chinese state for reasons that had little relation with "modern" science.

In sum, the presentation aims to shed light on the processes by which the newly introduced astronomical concepts (mainly kinematic and spherical geometry, European cosmological models as well as new instruments such as the telescope) contributed to the legitimation of the newly incepted dynasty that felt the need for a more accurate calendar to assert its authority, while at the same time the Sinicized European concepts themselves were being legitimated by the imperial endorsement.