

MATTEO RICCI AND JESUIT MISSION
CHINA AT THE CENTER OF THE WORLD

Nothing procured Matteo Ricci more prestige than the world map that he drew for the first time while still at the Jesuit mission house in Zhaoqing. It all came about because of a world map, probably drawn in Goa or Macau, which he had hung on the wall when they arrived. For the visitors who came to the mission house, the objects they found there, like clocks and prisms, were a source of interest. But, of all the things that aroused their curiosity, including the physical appearance of the Jesuits themselves, this world map was what caused the biggest stir. And that calls for an explanation.

To begin with, Chinese maps were mainly concerned with China, clearly depicting its rivers and provinces. Tributaries were usually drawn too but tended to appear crammed in one corner of the map. So, the relative position and size of China compared with the rest of the world was never taken into consideration. By 1584 the Chinese officials of southern China had probably heard of the existence of America, because the Manila Galleons had been sailing there for more than a **decade, but they had no idea of America's shape or size.** Neither had they envisaged the quantity of water that there was on earth. Although since ancient times there had been a scientific theory in China that claimed that the earth was round, only a few were familiar with it. Even the officials who came to visit the small Jesuit mansion were sure that the earth was a flat rectangle covered by a spherical sky. Last but not least, while Matteo Ricci could lecture about the spherical nature of the earth, could even use convincing geometrical theorems to demonstrate it, a map was a tangible object with much more potential for immediate cultural diffusion. In view of the notoriety of this map, Matteo Ricci decided to draw himself a new world map adapted to Chinese sensibilities.

Looking at how Ricci did it will provide a clear view of how accommodation worked. To begin with the position and size of China had to be carefully managed as the Chinese were used to a China that occupied the whole available space of the map. While Ricci's new map did show an alarming and shocking reduction of the country, to compensate for its diminished size, Ricci placed China at the center and added to it a caption saying that "the Middle Kingdom is renowned for the greatness of its

civilization." Compared with the map that had first hung on the mission house wall, **in Ricci's new version China is more clearly drawn.** The confusion between China and Cathay is solved under the name of Daming. Its main rivers and provinces are clearly shown, as is the Great Wall, and even the contiguous deserts: the Gobi and the Taklamakan appear represented by dotted areas, as was usual in Chinese cartography. Furthermore, Ricci adds text to his map, as is usual in Chinese maps. To draw the East, Ricci clearly uses Chinese models rather than European ones. The map also had to present strikingly innovative scientific concepts. Ricci uses the map to introduce Chinese mapmakers to the Ptolemaic system of organizing the cartographic space with a graticule of longitude and latitude lines. He highlights the relevance of these reference lines by adding two diagrams of the meridians converging at the two poles. These polar projections of the earth clearly show the progressive intermediate space among the meridians going from the poles to the Equator. This has strong implications for the calculation of navigational distances and had not been taken into consideration in the grid references of previous Chinese maps.

The Chinese had used a square grid system for centuries, as can be seen on this 12th century map of the Song dynasty, or in this Ming dynasty geographic compendium, the *Guangyu tu*, that Ricci knew and used. But these lines were only intended to show distances, not relative positions and didn't entail a modern method of mapmaking. Ricci also stresses the lines of the equator, the tropics and the polar circles, through which he could explain the climatic diversity of the planet.

At the top right Ricci adds another diagram, showing the relative position of the earth, the sun and the planets. It is a geocentric diagram that follows the Aristotelian view of the Universe. It has the earth at its center, encircled by the sun and the planets turning around it. It was already half a century since Copernicus had published his book *On the Revolutions of the Celestial Spheres* that had displaced the earth from the center of the universe and had opened the way for modern science. **But Copernicus' heliocentric theory**, that put the sun instead of the earth in the center, contradicted the Bible and ignited the church. Many opposed heliocentrism on religious grounds. Among the strong defenders of heliocentrism was the Jesuit Clavius, the highly reputed mathematician of the Roman College, who had been Ricci's revered professor. In 1616 **Copernicus' system was condemned** by the Holy Office, and his book included in the Index of forbidden books. The Jesuits sided with the Pope, possibly out of conviction, but certainly because they were tied, by their own Constitution, to a blind obeisance to the Holy See. This is why the Jesuits taught the Chinese an erroneous model of the heavens and why they continued to do so until the 18th century.

