

## The Matteo Ricci 1602 Chinese World Map: the Ptolemaean Echoes

Evangelos Livieratos

AUTH Aristotle University of Thessaloniki, Greece

### Extended Abstract

The Matteo Ricci's (1552-1610) World Map (WM) made in 1602 is the third, more advanced, after his two earlier maps made in 1584 and in 1600. It is of main importance for the cartographic heritage of both China and Europe, printed in Chinese by this emblematic Jesuit missionary, during the very late period of the Ming Dynasty. The Ricci's 1602 WM entitled *Kunyu Wanguo Quantu (A Map of the Myriad Countries of the World or Complete Geographical Map of all the Kingdoms of the World)* was printed in several copies most now lost and it is the advanced version of the earlier Ricci's map entitled *Complete Map of the World's Mountains and Rivers* with rough depictions of the continents. In the paper, the test-approach to Matteo Ricci WM is following, in general, Bertin's (1967) analysis concerning the *external* and *internal recognition* theory for the map reading and evaluation.

From the analysis of some selected cartographic recognition items of this map, following Bertin's *external* and *internal recognition* theory for the map reading and evaluation, some conclusions are drawn that either confirm or contrast some so far established stereotypes, especially on what European school of cartography models the map was presumed to refer. It is shown that the foundation of Ricci's geographic and cartographic thinking was of Ptolemaean descent and that for the positioning of places, with respect to the graticule of meridians and parallels, Ricci follows the Ruscelli's Italian version of Ptolemaean *Geographia*, which is evidently a derivative of Gastaldi's counterpart, using an oval map projection variant. This projection is clearly a derivative of previous Italian models, mainly Venetian, and not of models used by the Atlantic schools of European cartography. It is also shown that the oval projection, popular in 16<sup>th</sup> century, is nothing but a derivative of Ptolemy's second projection, under a fourth order polynomial transformation.

Concerning the placement of the Americas eastwards, the *flattery scenario*, popular in the so far encountering with the issue, is critically discussed in terms of two other legitimately possibilities: the *technical scenario*, related to the practical drawing issues requesting spatial commodity for a comfortable representation of China in detail, and the *cultural scenario*, which is discussed in depth, based on Ricci's classical educational background and of his technical geographical preparation at the Collegio Romano under Clavius, embedded this preparation into the very specific spiritual environment of the Roman Church, the Jesuit missionary was strongly linked with. If the *cultural scenario* is valid, fuelled with existing relevant evidences, then the Ptolemaean echoes in Ricci's Chinese map, already sound in his representation of the *Æcumene*, become even stronger.

The paper shows further how the research on Matteo Ricci's WM is today boosted thanks to digital technologies used for the analysis and interpretation of relevant cartographic heritage issues, offering valuable insights for the understanding of the cultural dimension of Chinese cartographic legacy. There is no doubt that comparative analyses of the geometric content of this unique map could also open more space for additional reading and evaluation. Finally, it is also stressed that a proper global approach to this map should be attempted, not only concerning Ricci's missionary priorities in China, but also his cultural and intellectual environment of his original education, in the context of the geographic ideas and skills he gained in Rome.

In conclusion, the paper shows that the presumed influence of the Atlantic school of European cartography on Ricci's map, as proposed sometimes, seems to be a rather weak consideration. On the contrary, a multichannel echoing of Ptolemaean cartography is more than evident in Ricci's map, as the analysis of fundamental map-elements can demonstrate. The Ptolemy's echoing and the meta-Ptolemy advances in the Mediterranean school of European cartography, of Italian origins, obviously embrace the Matteo Ricci's Chinese WM in its legacy.