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Title: A mestizo cosmographer in the New Kingdom of Granada: astronomy and chronology in Sánchez de Cozar Guanientá's *Tratado* (c.1696).

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Review text:

The paper is a description of a recently recovered manuscript in the National Library of Colombia dating from the end of the seventeenth century. The manuscript is a Treatise on astronomy written by Antonio Sanchez de Cozar Guanienta, a mestizo priest. The paper, although mainly descriptive in its content, is historically interesting. Apparently, the Treatise does not contain big novelties regarding astronomy or cosmology, but it has some interesting details that make it worthy of attention. The cosmology presented is an Aristotelian one with Ptolemaic calculations. The main peculiarities of Sanchez's cosmography are the introduction of a crystalline sphere for the comets between the Moon's and Mercury's spheres, something clearly different from the Aristotelian and Ptolemaic conceptions for which the comets were sublunary phenomena. The Treatise presents also a cause for the motion of the celestial spheres different from the traditional prime Motor: the heavenly bodies, although still incorruptible, have heaviness, a quality that in Aristotelian physics and cosmology is reserved only for bodies on Earth. So, the planets, the sun and the moon are heavy bodies linked together in crystalline spheres, but these spheres are not perfectly spherical. They have pyramidal knots which, together with the heaviness of the bodies, make them to be not in equilibrium, and this is the reason why they move. If the celestial spheres were perfectly spherical they would remain still, in permanent rest. Regarding the calculations, it is interesting to notice that the Treatise proposes a correction of the Gregorian calendar in 11 days, stressing the relevance of fixing the dates of Easter and other religious fes-

tivities to accomplish salvation. Part of the Christian scatology consists in the fact that the believers should properly celebrate the religious festivities, hence the relevance of having an accurate calendar allowing for the correct fixation of important dates. As part of these calculations Sanchez's Treatise includes a new date for the birth of Jesus and adapts the scatological issues to local concerns, including the indigenous people into the salvation narrative. This is important because at the time it was debated whether Jesus would have also been in contact with American peoples, or there could have been a second coming, in order to clarify what happened with the people that had not had the opportunity to become Christians. The discovery of documents such as the one presented in this paper questions the traditional narratives regarding the scientific revolution and the development of science in peripheral territories. Also, the fact that it was written by a mestizo priest who did not conceal his mixed-race origin is quite a novelty at the time, having anthropologic and cultural implications that are worth further study. When we take the details of this kind of documents into account, we can consider the existence of several cosmologies alternative to the three main ones disputed in the seventeenth century: the Aristotelian-Ptolemaic, the Copernican and the Tyconic ones. This plurality is due to the necessity of considering local problems that the main centers of study in Europe ignored.

Comments to the MR Editors (not part of the Review Text):

Sanchez has an acute accent in the "a", that I cannot include. The same happens with Guanienta (it has an accent in the last "a").