

Ferdinand FELLMANN: *Scholastik und kosmologische Reform*
(‘Beiträge zur Geschichte der Philosophie und
Theologie des Mittelalters,’ N. F. Bd. 6)
Münster, Aschendorff, 1971, SS. 70.

Although many many books and articles on Copernicus have been published to celebrate the 500th anniversary of his birth, the distance from the scholastic astronomy and physics to Copernicus may have not yet been definitely measured. Nowadays, fewer people regard Copernicus as a genius without forerunner, but weakpoints have also been detected in Duhem’s conjectures according to which nothing but coming from his “real” ancestors is found in Copernicus. One might not deny that the Condemnation in 1277 by Etienne Tempier against a series of theses could have enframed the scholastics into the Aristotelian physics, but it would be an exaggeration to say that the Copernican heliocentrism had been deduced from that Condemnation.

Now, the book taken up by the reviewer, deals mostly with Nicolaus Oresme’s heliocentrism presented in his *Le livre du Ciel et du Monde*. It treats also Jean Buridan, but the treating is in passing and only for the sake of showing the former’s superiority over the latter. This book consists of a brief introduction and 4 chapters. In the introduction, the author presents the following problems: What had been the presupposition that conferred cosmological ‘Relevanz’ on a mathematical-astronomical hypothesis? What relation had therefore enforced the scholastic cosmology toward the new Copernican theory? To resolve these problems, the author then takes up Nicolaus Oresme.

In the first chapter (Perspective and cosmology), he treats the optical demonstration. As is well known, the optical demonstration has no meaning concerning the motion of the Earth. But, reciting Buridan’s words (Cum nihil scias de voluntate Dei tu non potes esse certus de aliquo) and Oresme’s (Nous ne pourrions apparcevoir en rien ceste mutacion, mes tout sembleroit estre en une maniere huy et demain quant a ce), and attracting the notice of the reader to the fact that they were Nominalists, the author emphasizes that, according to them, God was a concealed God and the experience was mercilessly unreliable.

In the second chapter (The problem of natural motion), the author states that the demonstrations of the rest of the Earth by the natural motion were also fundamentally annihilated by the nominalist and anti-experimentalist Oresme. Thus, the keystone of the scholastic physics, namely the natural location and the natural motion to the natural location, lost their significance and were radi-

cally relativised. According to Oresme, each kind of elements went up and down not for its natural place but with reference to its circumscribing element. Therefore, the centre of the Earth as the centre of all gravities lost its absoluteness.

The author, in the third chapter (Order of heavens and its teleological reasons), points out that it is true that Oresme agreed with other scholastics as to the order of the 7 planets, but he did emphasize that the Sun was in the middle of the 7 planets, *viz.*, under the upper 3 planets and above the under 3 planets. Here also, Oresme destroyed the coincidence of the local hierarchy and the hierarchy of values.

In the last chapter (Principle of economy and probability of rotation of the Earth), the author describes how hard Oresme tried to fill the old historical gap between the Ptolemaic mathematical astronomy and the Aristotelian physics. Not being a professional astronomer, he made efforts to reconstruct, as Copernicus does, the monistic physical astronomy.

Summarizing the contents of this book as above, the reviewer has been interested in the intimate relationship between Oresme's astronomy and his nominalism. Since Oresme's other texts have been recently published, the reader would like to see how his astronomy and his geometry are internally related.

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