This is a review submitted to Mathematical Reviews/MathSciNet.

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Author: Dhombres, Jean; Régnier-Roux, Daniel

Title: La bibliotheca mathematica du XVIIe siècle en Europe. Premier Volume. Analyse.

MR Number: MR3930574

Primary classification: 01A45

Secondary classification(s): 01A90

Review text:

This book is a study of Mathematical Libraries in 17th century Europe. The starting point is an exceptional library, that of Camille de Neufville, archbishop and general lieutenant of the French provinces of Lyon, Beujolais, and Forez. The authors compare that library with other eight European libraries pertaining to different figures of the 17th century. The purpose is exposing and accounting for the process of scientific enculturation in Europe, particularly, mathematical enculturation. The book is divided into two volumes, one containing the bibliographical analysis of the libraries and the second containing documents and different statistics regarding bibliographical criteria such as language, place of printing, date, topics, and also a list of authors, works and printing houses. The study of the libraries gives a very deep idea of the mathematical culture in Europe. They have studied and analyzed around 1300 mathematical books written by 580 authors. These numbers already suggest the variety of the works. The authors have also classified the mathematical books into different topics, these ones also sub-divided in sub-topics: Mathematica coelestis (celestial mathematics), divided into astronomy and other astronomical issues, and astrology; Mathematica Pura (pure mathematics), which includes geometry, practical geometry, arithmetic, algebra, mathematical physics; and Mathematica Mixta (mixed mathematics), containing measurement theory, cartography, instruments (astrolabes, quadrants,etc.), optics, mechanics, military and civilian architecture, fortification, etc. This classification follows the criteria of the 17th century and gives a good account of the extension of the topics included

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under the rubric 'mathematical sciences' at the time, but also of the changing status of mathematical classifications along the centuries, since, for example, in the next centuries, celestial mathematics will be included under the rubric of celestial mechanics as a part of mixed mathematics.

The authors have chosen as the main library that of Camille de Neufville for good reasons explained in the first volume. He was a book collector and erudite, he had more than 5000 books, of which around 16 percent is about sciences and arts. He was an important political figure in the France of the time and his family had close links to royalty. But he was no specialist or professional mathematician, which makes him a good figure to know European mathematical culture in a broad way -of course for educated people of the time, which does not constitute the majority of the population. The other libraries are those of Charles Maurice Le Tellier, archbishop of Reims; the Jesuit mathematician Gregoire de St. Vincent, the jurist and amateur mathematician Florimond de Beaume, the Parisian professor of mathematics Pierre Herigone, the Protestant logician Joachim Junge, the British mathematician Isaac Barrow and of two celebrated 17th century scientific figures: Christiaan Huygens and Galileo Galilei. So the authors analyze the libraries of very different characters in scientific relevance, also coming from different European geographical areas (four of them are French, one is Italian, one British, one German, one Dutch and one Belgian). They all have in common their astronomical interests and their participation in the cosmological quarrels, contributing to the idea that astronomy and cosmology are one of the main topics of the scientific revolution.

The authors recognize that there are several restrictions in their study, some of them geographic. They have not analyzed any library from the Iberian Peninsula. They consider that it would have been relevant to include in the comparative study the library of the Portuguese Pedro Nunes, but he was a 16th century figure and so out of the scope of the book -being a study of 17th century libraries. Also, although the authors do not mention it, it would have been interesting to include the library of Hernando Columbus, the son of Christopher Columbus, a Spanish bibliophile, but like Nunes, he is also a 16th century figure. In any case, the authors say, that along the 17th century, even Iberian Jesuits made their books to be printed in France or in other European countries, so the works of some relevant Iberian figures, such as Juan Caramuel, are present in the libraries studied.

In general, the book is written for specialists interested in detailed bibliographical studies; there are some spelling mistakes and the quality of the images printed is very poor, but the data are treated carefully and the purpose of the book is, overall, well accomplished.

Comments to the MR Editors (not part of the Review Text):
This review is for the two volumes, since the second one is the appendix. I will submit the same review for both.