

Introduction by José Chabás * and Richard L. Kremer **

IN THE 200 YEARS BEFORE the publication of Copernicus's *De revolutionibus*, European astronomy experienced a critical growth in most of its domains from mathematical astronomy and observation to instrumentation and teaching; extended widely its scope; created new products to meet new demands; and diffused its contents among a continuously increasing European community of practitioners of astronomy, thus contributing decisively to the cultural integration of Europe.

Astronomy, as it was practiced in Europe during the whole period, relied on the *Alfonsine Tables*, which were in turn heir of a long Arabic tradition based on Ptolemy's astronomy and which had become the most powerful instrument for astronomical computation. This set of tables, usually accompanied by texts explaining their use, allowed astronomers to compute the positions of the planets and predict eclipses, among many other features. However, the computations were not always easy, and astronomers devoted much effort and ingenuity in rearranging this tabular material to facilitate the practitioner's task, without challenging the theoretical basis of Alfonsine astronomy. Thus, other sets of tables were compiled in the fifteenth century, such as the *Tabulae Resolutae* in Poland, the *Tables of Bianchini* in Italy, and the *Almanach Perpetuum* in the Iberian peninsula. And new products (increasingly printed after 1460) such as ephemerides, calendars, almanacs, and prognostications were placed in the market, with all calculations carried out, in such a way that even those with a very limited knowledge of astronomy could use them. Parallel to this dissemination of mathematical astronomy during these two centuries, a growing interest in astrology also emerged in most European countries, as well as an increasing curiosity for astronomical instruments which could be used for predictive purposes. These tendencies developed with different intensities in all European countries, but none remained outside this general trend.

The development of this progressive harmonization of astronomy on a European scale was made possible by at least three factors. First, the use of a common language, Latin, in all disciplines, even though vernacular languages were progressively used, especially in the most practical fields related to astronomy. Second, the foundation in most European countries of a number of universities, and the creation of chairs of astronomy in many of them. This led to an increased mobility of students and professors (e. g., the first incumbent of the chair of astronomy at the University of Salamanca, Spain, was a Polish scholar) and to a continuous interaction between practitioners of astronomy from different nationalities. Third, the printing press gave many people access to a variety of materials that otherwise only the powerful had the possibility to own. Astronomy benefited from this new technology very soon, for many astronomical treatises, textbooks, and tables were edited before 1500.

In the last decades there has been an intensive scholarship in the history of astronomy in Europe in the early modern period. The aim of this symposium is to contribute to this elaboration of a new general picture of the history of astronomy and, more generally, to the history of the circulation of scientific ideas in a critical period of cultural integration of Europe.

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