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BOOK REVIEW

Astronomie und Anschaulichkeit. Die Bilder der populären Astronomie des 19. Jahrhunderts (*Acta Historica Astronomiae* 20)

Susanne Utzt

Wissenschaftlicher Verlag Harri Deutsch GmbH, Frankfurt am Main 2004. ISBN 3-8171-1730-2, ISSN 1422-8521. 112 pages. Price 12.80 EUR(D)

Today, popularisation of science also means “pretty pictures”: images that accompany articles in magazines and webpages, or are squeezed between the covers of so-called coffee-table books, and the reviewer pleads guilty to having added to this growing pile. But how did this “disease” come into existence?

Susanne Utzt, a manager, journalist and student in the history of sciences, has dedicated her master thesis to the investigation of the growing influence of such pictures in the popularisation of astronomy. She has analyzed French and German popular texts by Arago, Guillemin, Flammarion, as well as Littrow, Mädler and Max Wilhelm Meyer that mainly appeared in the second half of the 19th century. Earlier astronomy books just had a few foldout pages with mathematical figures, as the author exemplifies by Littrow’s first edition of *Die Wunder des Himmels* of 1834–36. But Flammarion with his *Astronomie Populaire* changed everything: 51 “art pages” and more than 300 figures in the text made it a true picture book, and about a third of Utzt’s work is dedicated to its analysis. (In passing, it should be noted that the first 1880 edition of Flammarion’s book did not yet contain the “art pages”; the author quotes such pages and text figures according to a German edition of 1907). Besides sober diagrams illustrating the solar system, and telescope drawings showing planetary surfaces and the structure of the solar photosphere, Flammarion includes poetic illustrations like a couple at the seashore at sunset; a scene showing dying Copernicus, already flanked by two angels, as he receives a copy of his *De Revolutionibus*; or a painting showing a flock of mammoths in an ancient landscape. In most cases, the images are chosen to illustrate the text, but sometimes the text “makes a detour” to permit the inclusion of a pretty picture. Flammarion’s book contains drawings illustrating the sphericity of the earth, which appeared in almost identical form in Apian’s *Cosmography* of 1539, and it includes images that became only a reality after space travel to the planets of the solar system became possible: thus Flammarion’s images probe the past and the future, they cover a time interval of about 450 years! I think that there is a direct route from Flammarion’s images “Jupiter, as seen from one of its moons” or “The rings of Saturn, as seen from Saturn”, to the space art of Chesley Bonestell, as it appeared in the early 1950s in the book *The Conquest of Space* by Willy Ley, as well as in popular journals. Besides national prestige to be superior in rocketry and space travel, it was the fantasy and enthusiasm of the general public, as spurred by paintings like those of Bonestell, that made the space missions and the planetary exploration of the last decades possible.

In 1880, a certain Father Schlosser expressed his fear that the flood of images would lead to a loss of fantasy, to sensationalism and superficiality. In modern society, illustrated newspapers, magazines and television may really have caused such a scientific analphabetism and superficial knowledge in wide circles. On the other hand, Wilhelm Foerster (1889) expressed the hope that the layman can be stimulated by sensual pleasures in his pursuit of insight, and even to a collaboration in science, and his hope was also fulfilled: nowadays, more hobby and professional scientists are active than in past times; “hobby science”, if done in a professional way, can form

a valuable supplement to astronomical science; and honestly, how many present-day astronomers have arrived at their profession by watching astronomical TV programs, reading science fiction novels, or illustrated astronomy books that they once received as a gift?

Utzt states that knowledge is generated and transmitted more and more by images, and propagated to the public by means of visualisations. Thus, a critical investigation of the influence of such images is needed, and the historical knowledge of the practice of visualisations in science and popularisation can form a basis for such a study.

The somewhat slim volume of this series is embellished with 35 illustrations. It offers interesting insights in the development of illustrations in popular scientific books, their use, and also sometimes their failure. It also inspires the reader to embark on further studies where the author, because of lack of source material, because of self-imposed limits of investigation, or perhaps simply because of lack of time, has halted.

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