

Name that asteroid

David Hughes

Dictionary of Minor Planet Names, Second Edition. By Lutz D. Schmadel. Springer: 1994. Pp. 741. DM118, \$69, £46.50.

BETWEEN the orbits of Mars and Jupiter lie uncountable numbers of minor planets, or asteroids — to give them their more prosaic modern title. Asteroid number one, Ceres, was discovered on New Year's Day 1801. A thousand asteroids were known by 1921 and the number reached 2,000 by 1946. Over the past decade or so asteroids have been discovered at the rate of about 160 a year. By September last year 5,655 asteroids had been numbered and of these 4,512 had been named.

Numbers are assigned to asteroids when their orbits are known to sufficient accuracy that they can be found at any time in the future. Names are a different matter. The person who discovers an asteroid has ten years to produce a name. There are very few restrictions on poetic inventiveness. The Minor Planet Names Committee of Commission 20 of the International Astronomical Union insists that the name should be pronounceable, preferably expressible as a single word and contain fewer than 16 characters. Names glorifying people or events of principally political or military significance are

considered unsuitable, unless at least a hundred years have elapsed since the person died or the event took place. With these exceptions anything is fair game.

Mythological names predominated in the first three-quarters of the nineteenth century, but today these classical names are almost exclusively reserved for asteroids in a 1:1 resonance with Jupiter. These asteroids commemorate the Trojan war, the Greek besiegers preceding Jupiter and their Trojan opponents following.

At first, all the asteroid names were female and anything that was vaguely masculine was given the feminine suffix of 'a' or 'ia'. Sir Isaac Newton was honoured with asteroid number 662 Newtonia, a German marble became 711 Marmulla, the country of Japan was commemorated with 727 Nipponia and so on. This changed in the early twentieth century and now, among the 4,512 named asteroids, there is a clear preponderance of males to females, in the ratio of 10 to 3.

Some people were suspicious that asteroid nomenclature represented a cemetery for astronomers, but in fact only a quarter of all names come from this profession. Many refer to the relatives of the discoverers. In the case of, for example, Ed Bowell of the Lowell Observatory, Arizona, and Elinor Helin of the Mount Palomar Observatory, California, plenty of relatives are required — they have discovered 341 and 154 asteroids respectively. Among relatives, spouses seem to prevail over both children and parents,

and uncles and aunts are much less represented than the discoverer's friends. Other asteroidal categories are cities, countries, writers, literary figures, composers, plants, animals, painters and acronyms.

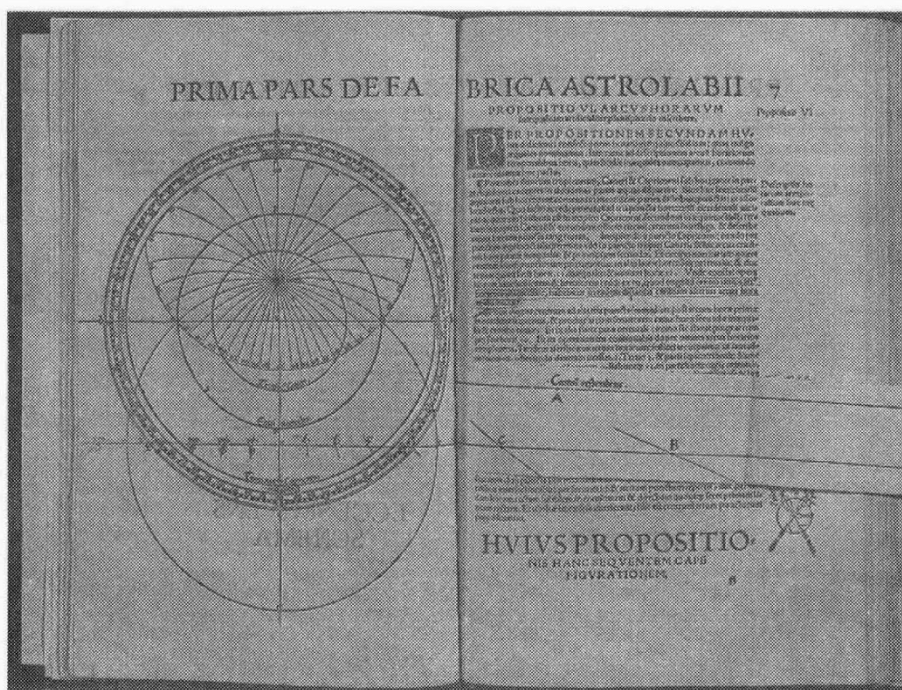
Lutz D. Schmadel has produced an absolutely delightful book. The first edition of this rather specialized compilation was produced in late 1992 and sold out within a few months, to the surprise of both the author and the publisher.

This second edition is a thoroughly revised and enlarged version. The structure is, however, unchanged. The name, preliminary designation, discovery date, discoverer and discovery place are given for all the asteroids, together with a paragraph explaining the meaning of the name and why it was chosen. Since 1947, each name assignment has been accompanied by an explanation, but for many of the 2,000 asteroids named before then, some detailed research had to be done. Even now, Schmadel lists 134 asteroid names with unknown meanings or attributions, most of these asteroids having been discovered by Maximilian Wolf and Karl Reinmuth at Heidelberg and M. Charlois at Nice.

Many happy hours can be spent browsing through this enthralling dictionary. □

David Hughes is in the Department of Physics, University of Sheffield, Hicks Building, Sheffield S3 7RH, UK — and is also asteroid 4206.

The Crawford treasures: a heavenly library in Edinburgh



Johannes Stöfler (1452–1531) achieved fame for calculating 50 years of ephemerides (calender of the daily movement of the planets), but today he is more widely admired for this richly illustrated book on the making and use of an astrolabe. The work, which spawned a host of imitators, is currently on display in "A Heavenly Library: Treasures from the Royal Observatory's Crawford Collection", an exhibition at the National Museums of Scotland, Edinburgh (until 31 December). The collection was put together over a century ago by James

Ludovic Lindsay, 26th Earl of Crawford, an amateur astronomer and a bibliophile, and stands today as one of the finest libraries of rare astronomical books. An exhibition catalogue is available from the observatory at £12.50 (pbk).