Southern Constellation Names

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History

La Caille's first catalogue gave constellation names in French (de la Caille, 1756) and his second in Latin (de la Caille, 1763), which had been for centuries the standard international language for European scholarly work. Even now the International Astronomical Union (IAU) uses it for constellation names. This paper is about what happened after La Caille's time.

Astronomers have always needed ways to indicate areas of the night sky. Many of our constellation names are thousands of years old, but when Europeans began exploring the southern seas a few hundred years ago they saw groups of stars that had no names in their languages. Some southern constellations were named by the Dutch, and fourteen more were named by La Caille, who went from France to the Cape of Good Hope in 1750 to observe the southern stars. Tobin (2013) gave us an intriguing account of that work and of the Paris Observatory's planisphere based on it.

Sir John Herschel, who was an eminent nineteenth-century English astronomer, also observed the southern sky from the Cape. He felt that some names were unnecessarily long, and published two somewhat different lists of shorter versions (Herschel, 1844, 1847). Baily (1845) repeated some of Herschel's suggestions. Their influence was decisive. Herschel was concentrating on southern constellations, but if he had applied the same reasoning to the northern sky, Coma Berenices might now be called Coma. That is exactly what IAU called it in 1922 (see website 4 below) but Delporte (1930) reverted to Coma Berenices.

Modern constellations

The sequences of names about which there is more to say than Tobin did, with their authors' names if not La Caille, dates, and some comments are:

Antlia: La Machine pneumatique (1756), Antlia Pneumatica (1763), air pump; Antlia (Herschel, 1844), pump. Ancient Romans did not have air pumps but they did pump water; "antlia" meant "a machine for raising water, worked with the foot, a pump" (Lewis & Short, 1969). Glare (2012) also offers "(as an activity imposed on prisoners) the treadmill."

Caelum: Le Burin du Graveur (1756 text), Les Burins (1756 map), Caelum Scalptorium (1763), Caelum (Herschel, 1844, Baily, 1845). "Caelum" means "the chisel or burin of the sculptor or engraver" according to Lewis & Short (1969), and "scalptor" means "a cutter, engraver in metal or stone", but the burin(s) of 1756 are often translated as chisels nowadays. Would La Caille have objected?

Fornax: Le Fourneau (1756), Fornax Chimiae (1763), chemist's furnace; Fornax (Herschel, 1847), furnace.

Machina: Machina Electrica (Bode, 1801), electrical machine (i.e. electrostatic generator); Machina (Herschel, 1847). Bode put this small constellation between Fornax and Sculptor but it is now deemed to be superfluous.

Mensa: La Montagne de la Table (1756), Mons Mensae (1763), Table Mountain; Mensa (Herschel, 1844, Baily, 1845), table.

Musca: De Vlieghe (Fly) (de Houtman, 1603), Musca Apis (Halley, 1679), Musca (Herschel, 1847). The Fly was renamed Apis (the Bee) by Bayer (1603), who according to Ridpath (2013) was using a celestial globe that showed the insect but did not name it, and thought it was a bee. Herschel wanted to avoid the possibility of confusion between Apis and the nearby constellation Apus (bird of paradise; de Houtman,1603).

Norma: L'Equerre et la Regle (1756 map), the set-square and rule, Norma (1763), set-square, Norma et Regula (Bode, 1801), but it seems to have already reverted to Norma by Herschel's time.

Pictor: Le Chevalet et la Palette (1756 map), the easel and palette, Le Chevalet du Peintre (1756 text), Equuleus Pictorius (1763), the painter's easel; Pictor (Herschel, 1844, Baily, 1845), painter.

Pyxis: La Boussole/Le Compas de mer (1756), mariner's compass; Pyxis Nautica (1763), Malus (Herschel, 1844). Herschel chose Malus because it means "mast", and he said that Ptolemy had placed the mast of Argo there. IAU (Delporte, 1930) has followed La Caille instead.

Sculptor: L'Attelier du Sculpteur (1756 text), L'Atelier du Sculpteur (1756 map), Apparatus Sculptoris (1763), Sculptor (Herschel, 1844, Baily, 1845). "Attelier" (meaning workshop) is how the Académie française (1740) spelt it in the third edition of their dictionary. In the fourth edition it became "atelier" (Académie française, 1762).

Telescopium: Le Télescope (1756), Tubus Astronomicus (1763), telescope (literally, astronomical tube); Tubus (Herschel, 1847). IAU has reverted to a translation of La Caille's earliest name.

Volans: De vliegende Visch (de Hautman, 1603), Piscis Volans (Bayer, 1603), flying fish; Volans (Herschel, 1844, Baily, 1845).

Scorpius vs Scorpio

The Scorpion is a southern constellation whose Latin name has given trouble for over 1900 years. Some ancient Romans called it Scorpius or Scorpios (second declension, genitive Scorpii), others Scorpio (third declension, genitive Scorpionis). Some more modern astronomers have treated it as an irregular

noun (nominative Scorpio, genitive Scorpii), e.g. Baily (1845), Herschel (1847) and Phillips & Steavenson (1923). The IAU chose Scorpius (Delporte, 1930), so astrologers now seem to be the main users of Scorpio. Latin nouns like Scorpius that can be in two different declensions are uncommon, but they include a star cluster, Praesepe, and three more constellations: Crater, Delphinus and Pavo (Zumpt, 1847). Nobody told me at school that that could happen!

Conclusion

Some years ago I found that the on-line Oxford English Dictionary had omitted some constellation names and some Greek letters for star names although all of them are in use in English, and it had given suspiciously late dates of first usage for others. Armed with my lists, I thought it would be easy to describe what had happened since La Caille's time.

After hunting through Latin dictionaries and grammars, and through various nineteenth-century works on astronomy, I was surprised how much remained to be done. It would not have been possible without various websites; the main ones are listed below.

Most but by no means all of the ancient constellation names are living or mythological creatures, most of the Dutch ones are living creatures, and most of La Caille's are instruments or devices. The move to naming constellations after such objects reflects advances in technology up to the eighteenth century, and their users' appreciation of their significance. That trend has continued apace, but there was no real need for more constellations: none invented since La Caille's time have lasted.

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Web sites

1. *adsabs.harvard.edu/abstract_service.html* (for older publications)

2. *books.google.co.nz* (for older publications especially Baily, 1845, and Herschel, 1847)

3. *www.iau.org/public/themes/constellations/* (today's IAU web site)

4. *www.ianridpath.com/iaulist1.htm* (for the 1922 IAU list)

5. *www.ianridpath.com/startales* (for history and old star maps)

6. *archive.org/stream/grammaroflatinla00zumpuoft\#page* (for Zumpt, 1847)

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