

JOHANN BAYER'S URANOMETRIA ATLAS

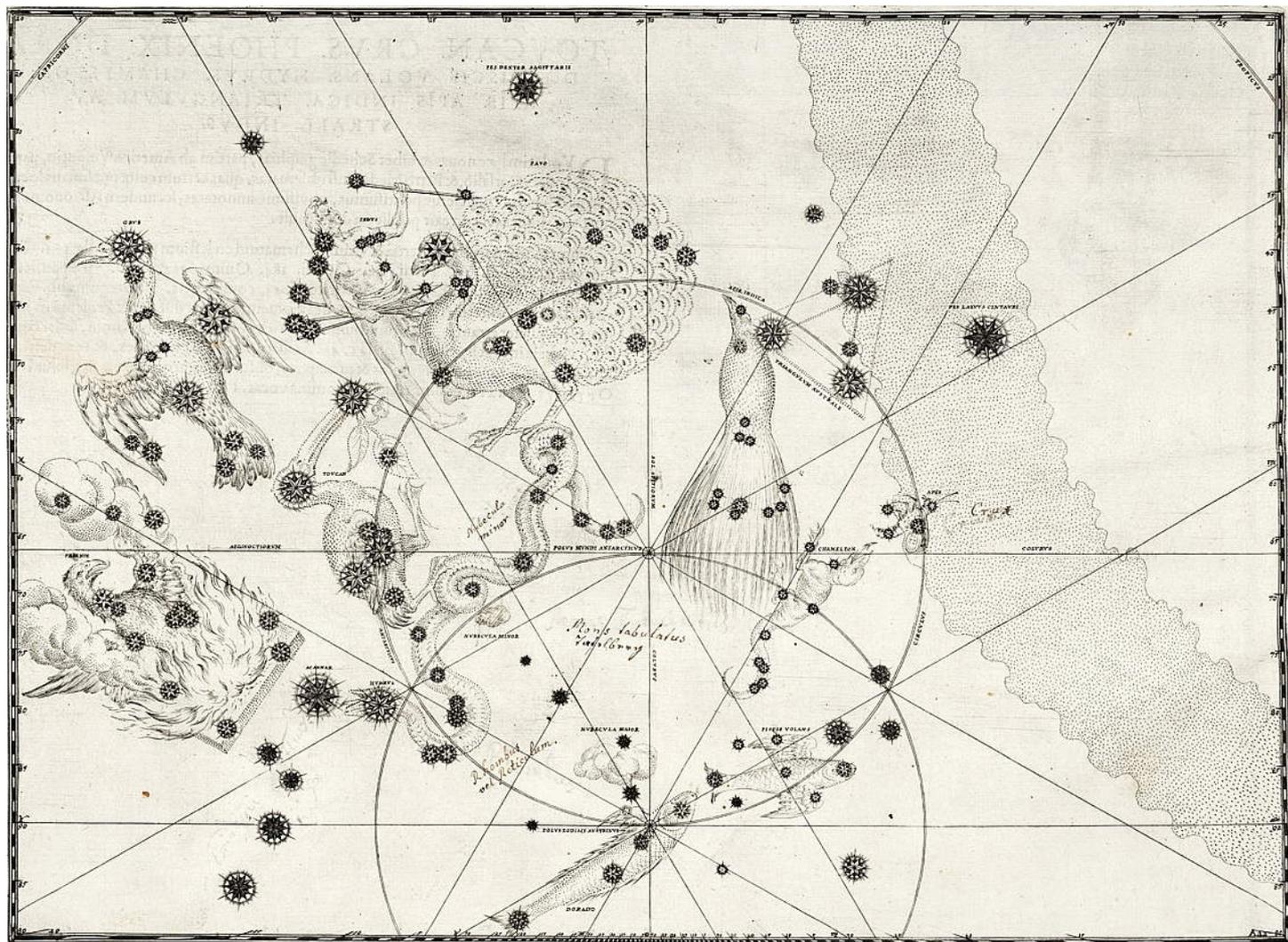
Johann Bayer's Uranometria atlas of 1603 was not only the first great celestial atlas, it was also the first to cover the entire sky. What made it so was the inclusion of a special chart covering the area around the south celestial pole. Bayer's south polar chart depicted the 12 new constellations that had been invented only a few years earlier from observations made by the navigator **Peter Dirkszoon Keyser** and some colleagues on the first Dutch trading expedition to the East Indies, known as the Eerste Schipvaart.

For European astronomers at the turn of the 17th century, Bayer's chart of this hitherto invisible area of sky must have been as sensational as were the first photographs of the far side of the Moon in more recent times.

Uranometria devoted an individual chart to each of the 48 classical Greek constellations listed by Ptolemy in the Almagest, but Chart 49 differs by lumping all the new Southern Dozen together. This was reasonable enough, since no catalogue of their component stars had yet been published.

The observations made on the Eerste Schipvaart had gone directly to the Dutch cartographer **Petrus Plancius** in Amsterdam and these stars, divided into the 12 new southern constellations, first appeared on a globe produced jointly by him and **Jodocus Hondius** in 1598. Hondius published revised versions of this globe in 1600 and 1601. The Dutch historian **Elly Dekker** has demonstrated that Bayer almost certainly copied the positions of the southern stars from these Hondius globes, as he had no original observations to work from.

Bayer's atlas was far more accessible than individually made and expensive globes, so his Chart 49 would have been the main way that these new constellations were introduced to a wider public, to the extent that Bayer was sometimes credited with their invention.



At the centre of Bayer's Chart 49 is the south celestial pole for the year 1600. Lower down is the south ecliptic pole. Circles of 23.5° radius encompass each pole, while radial lines extend outwards from them at 30 degree intervals. At right is the stippled band of the Milky Way. The two Magellanic Clouds, termed Nubecula Major and Nubecula Minor, are depicted as cumulus-type clouds in the lower left quadrant. The chart remained the definitive picture of the south polar skies for the next century and a half, until the French astronomer **Nicolas Louis de Lacaille** populated it with 14 more constellations of his own devising in the 1750s.