latitudes, then it immediately signifies that the book was written not earlier than the 16th c. A.D. Why then did he not retain the original equatorial coordinate system (as is done in all modern catalogues), carrying out the enormous job of recalculating the coordinates into ecliptical ones? Note that the methods of such a recomputation are quite bulky and lead to new errors. The whole job is so superfluous that you want to find some reason for it, probably mere (and vain) ambition to make the catalogue eternal, and thereby hide the apocrypha. As a matter of fact, ecliptical latitudes are not subject to precession!

The original equatorial coordinate system can also be discerned in the order of catalogizing the stars. Like the modern astronomers, Ptolemy started his catalogue with the North Star (α of Ursa Minor), i.e., the pole of the equatorial system. If the author had made the catalogue with respect to the ecliptical system from scratch, then it would have been natural to begin with the pole in the constellation Draco, and catalogue its stars first. Actually, the stars of Ursa Minor were catalogued in the *Almagest*, then those of Ursa Major and Draco. Moreover, starting the catalogue with the North star, the author created another anachronism, it being closest to the pole of the world only in modern times (!), β, the opposite star in that same Ursa Minor, nearest to the pole in the 2nd c. A.D. The author again disclosed the time when the catalogue was made.

The book ended no less remarkably, indicating Achernar (more precisely, "a very bright star in Eridanus"), which could not have been observed in Alexandria in the 2nd c. A.D., since it was at an angle of 10° below the horizon; to watch it, you had to move 600 km deep into Africa. In the 16th c. A.D., due to precession, it had already risen over the horizon and was observable in Egypt. Certainly, its low position created difficulties for the observer, and the coordinates in the Latin 1537 edition were given with an error. Hence, modern commentators of the *Almagest* prefer to believe that Ptolemy exaggerated the brightness of this "very bright star" in Eridanus, and that it is not identifiable with Achernar but with θ of Eridanus located north of Achernar.

10.2. Dürer's astrographic charts in the first editions of the Almagest

As indicated on the title page, the edition was supplied with 48 astrographic charts engraved by A. Dürer. Until book printing came into use, astrographic charts had listed only the brightest stars, and their disposition across the constellations varied from chart to chart. It was only after gravure had been invented that publishing a detailed astrographic chart for the study by astronomers became possible. Until the invention in the 15th c. A.D. of a process for reproducing pictures mechanically (gravure), no detailed astrographic charts could have been spoken of, and only mass editions of absolutely identical copies could have justified the sky's detailed representation with stars of the third and fourth magnitude. Even if somebody had undertaken the titanic work of making such a chart, it could not have been completely preserved for centuries, because its copies would at least have decayed soon, and reproduction meant repeating the whole job anew. A. Dürer's astrographic charts were the first authentic detailed sky maps. Neither an astronomer nor an observer, with the only purpose of retaining the elegance, he made certain essential