

# ANTONÍN BEČVÁŘ'S ATLASES

Pedro RÉ

<http://pedroastrophotography.com/>

Antonín Bečvář (1901-1965) was a Czech astronomer well known for his excellent Star Atlases. A. Bečvář was born in Stará Bolerlav in 1901 and died in the same town in 1965 (former Czechoslovakia).

At a young age, Bečvář suffered from croup and scarlet fever that caused a marked curvature of his spine. After graduation in 1921 he studied astronomy and meteorology at Charles University in Prague. Doctoral studies (Natural Sciences) were only finished in 1935 due to his health problems.

Since 1937, he worked in Slovakia as a climatologist of the State Health Resort at Strbske Pleso. He was also the founder of the Astronomical Observatory at Skalnaté Pleso<sup>1</sup> and became its first director from 1943 to 1950 (Figure 1).

His most significant contributions are four large astronomical atlases: The **Atlas Coeli Skalnaté Pleso** (1948) with a catalogue (1951)<sup>2</sup>; the **Atlas Eclipticalis** (1958); the **Atlas Borealis** (1962) and the **Atlas Australis** (1964). These atlases represented the state of the art in his time. They were reissued abroad and became indispensable for night sky observers all over the world (amateur and professional).

In 1970 the International Astronomical Union (IAU) named after him one of the craters of the Moon and the asteroid number 4567, which was discovered at Klet, also bears his name.

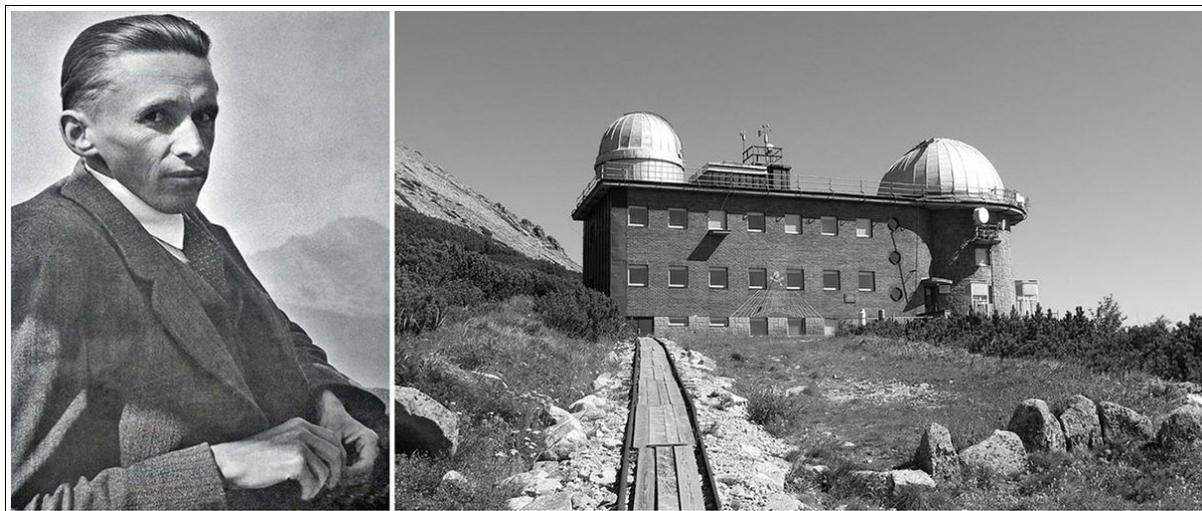


Figure 1- Antonín Bečvář and the Skalnaté Pleso Observatory.

---

<sup>1</sup> The Skalnaté Pleso Observatory is an astronomical and meteorological observatory in the Tatra Mountains of Slovakia. It is located at an altitude of 1786 metres on the south-eastern slopes of Lomnický štít near Tatranská Lomnica. The observatory is named after a nearby mountain lake.

<sup>2</sup> The compilation of the *Atlas Coeli Skalnaté Pleso* (1951), published by Sky Publishing Corporation as the *Skalnaté Pleso Atlas of the Heavens* was the state-of-the-art atlas of its kind until Wil Tirion's "Sky Atlas 2000.0" in 1981.

The *Skalnaté Pleso Atlas of the Heavens* (*Atlas Coeli Skalnaté Pleso 1950.0*) is a set of 16 celestial charts covering the entire sky<sup>3</sup> (Figure 2 to 5). The first version of this Atlas was published by the Czechoslovak Astronomical Society in 1948. The Sky Publishing Corporation published a new version in 1949 after acquiring the copywrite.

This Atlas include all stars brighter that magnitude 7.5<sup>4</sup> and all non-stellar objects visible with an 8-inch telescope (Nebulae, Star-Clusters and Galaxies). The coordinate system in referred to 1950 and the scale is 1 degree = 0.75 mm. Stellar magnitudes are shown as circles with graded sizes. Double and multiples stars are identified. Variable stars are identified as well. 243 Clusters (including all globular clusters) many Nebulae and Planetary Nebulae and 1130 Galaxies are also clearly identified. The outline of bright and dark Nebulae is shown, and their relative size is indicated. The Milky Way and prominent obscuring clouds within it are indicated by isophotic lines. Constellation boundaries, the celestial equator, ecliptic, and major radio sources are also shown. After publication of the *Atlas Coeli*, a supplement was produced, the *Atlas Coeli II - Katalog 1950.0*. This *Catalogue* contains data and descriptions of approximately 12000 objects plotted in the *Atlas*. All stars to magnitude 6.25 are included as well as many non-stellar objects.

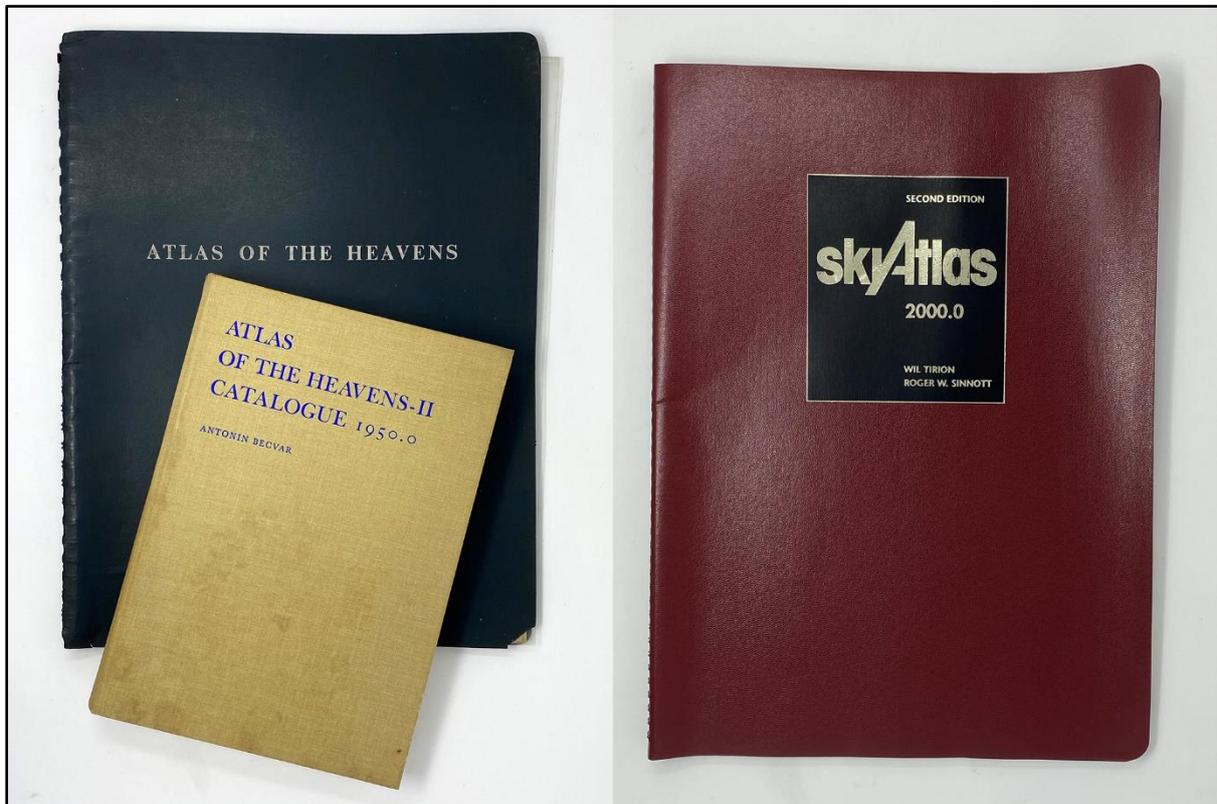


Figure 2- The Skalnaté Pleso Atlas of the Heavens (*Atlas Coeli Skalnaté Pleso 1950.0*) and the Wil Tirion's "Sky Atlas 2000.0". Author's personal copies.

<sup>3</sup> All charts were hand-drawn by Antonín Bečvář.

<sup>4</sup> All stars brighter than 7.75 magnitude are included, for a total of 32,571.

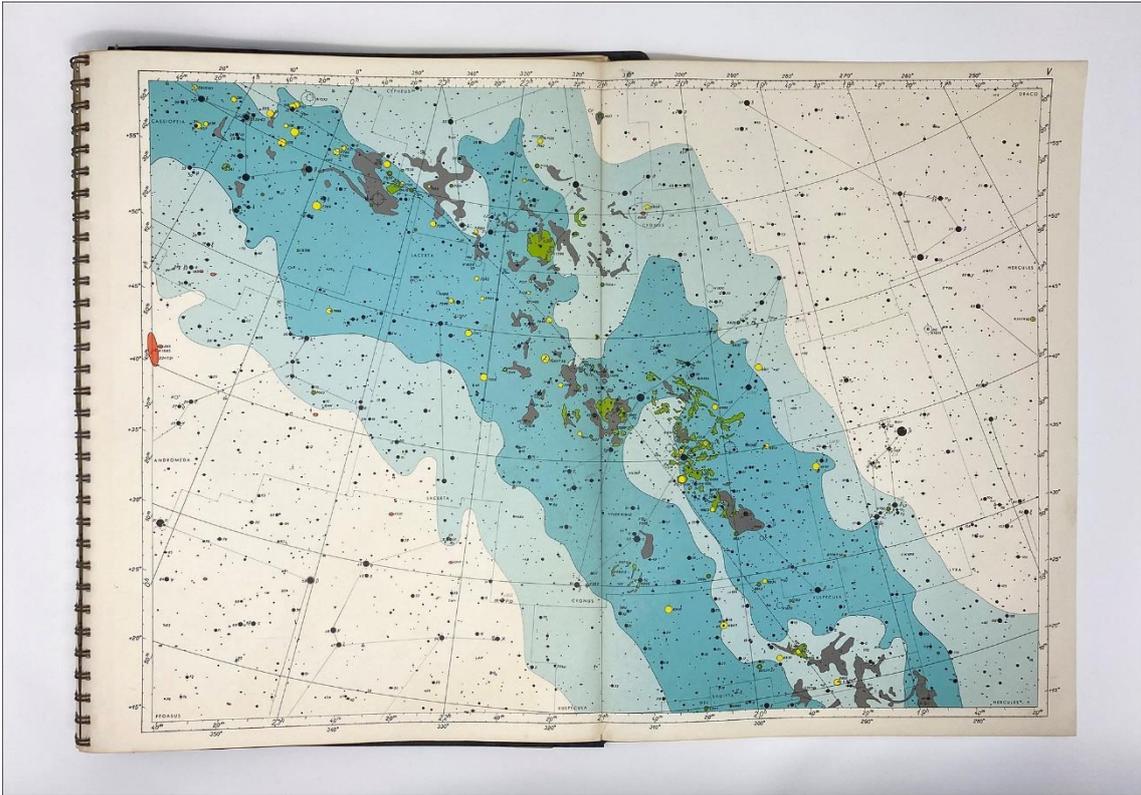


Figure 3- The Skalnáté Pleso Atlas of the Heavens (*Atlas Coeli Skalnáté Pleso 1950.0*).

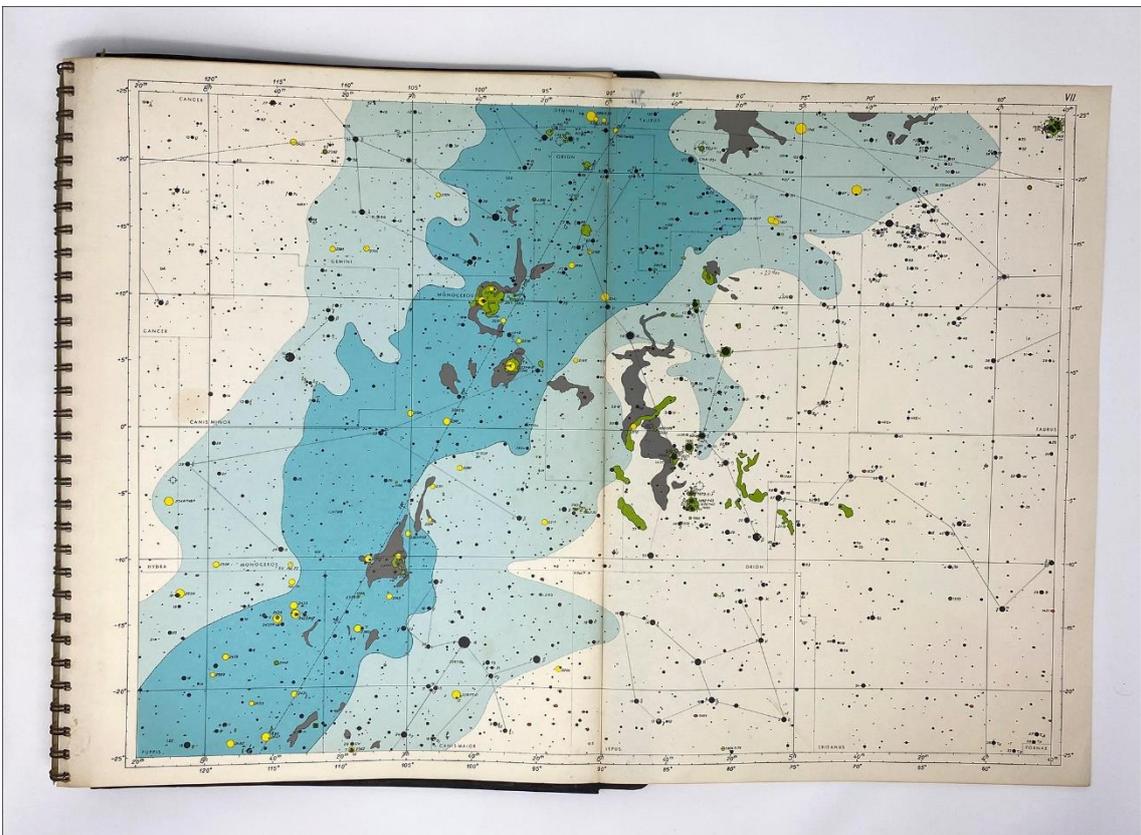


Figure 4- The Skalnáté Pleso Atlas of the Heavens (*Atlas Coeli Skalnáté Pleso 1950.0*).

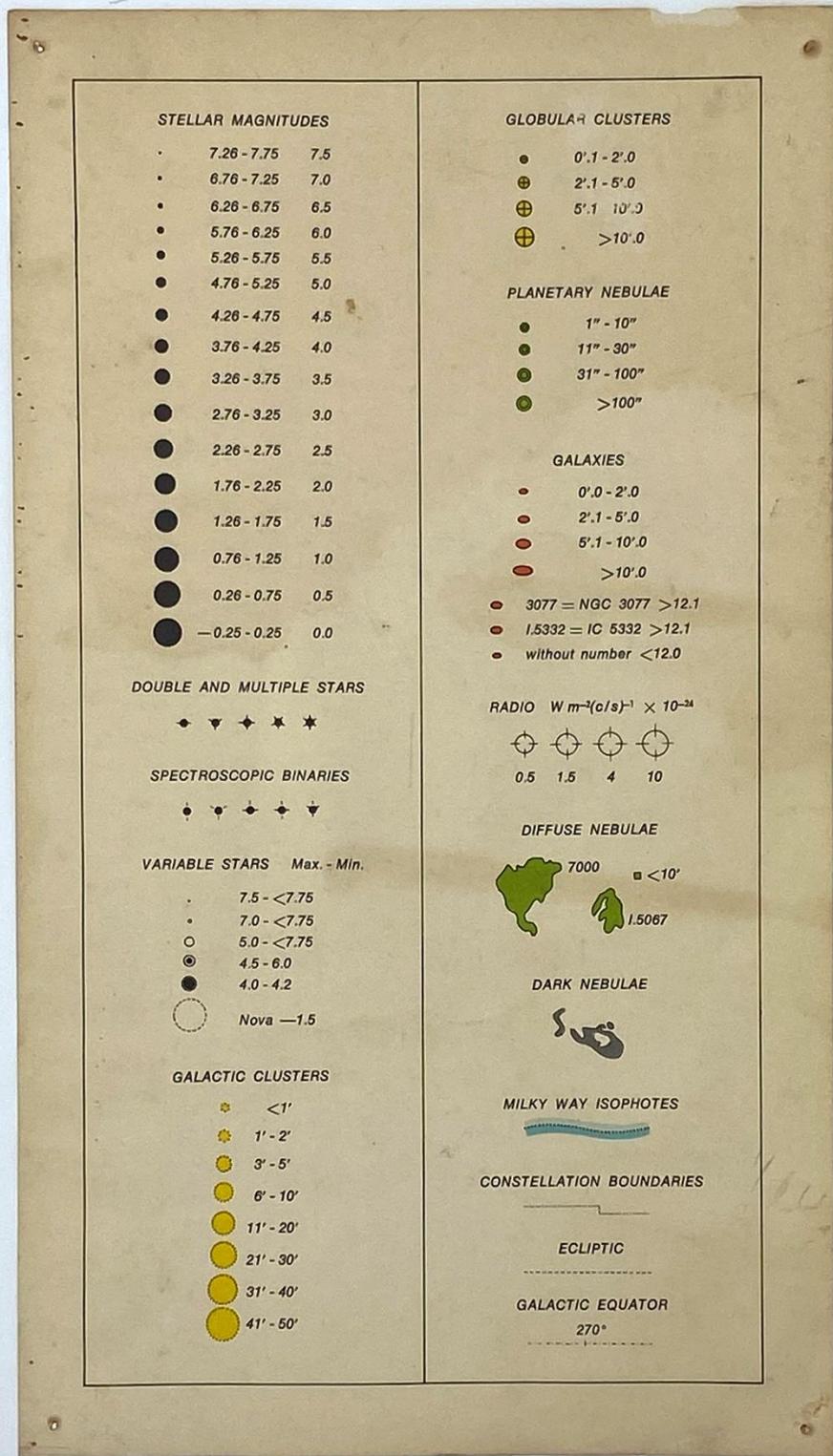


Figure 5- The Skalnate Pleso Atlas of the Heavens (*Atlas Coeli Skalnate Pleso 1950.0*).

After his retirement Bečvář worked on three celestial atlases with a different scale 1 degree = 20 cm: **Atlas Ecliptalis** (the celestial region between  $-30$  and  $+30^\circ$  of declination on 32 charts); **Atlas Borealis** (the celestial region northwards from declination of  $+30^\circ$  on 24 charts) and **Atlas Australis** (the celestial region southwards from declination of  $-30^\circ$  on 24 charts). These Atlases are very different from the *Atlas Coelli*. Stars are plotted considering their precise position and proper motions. Non-stellar objects are not plotted, and a six-colour press was used to distinguish six basic spectral classes of the stars. The three atlases were also published by the Sky Publishing Corporation (Figures 6 to 9).

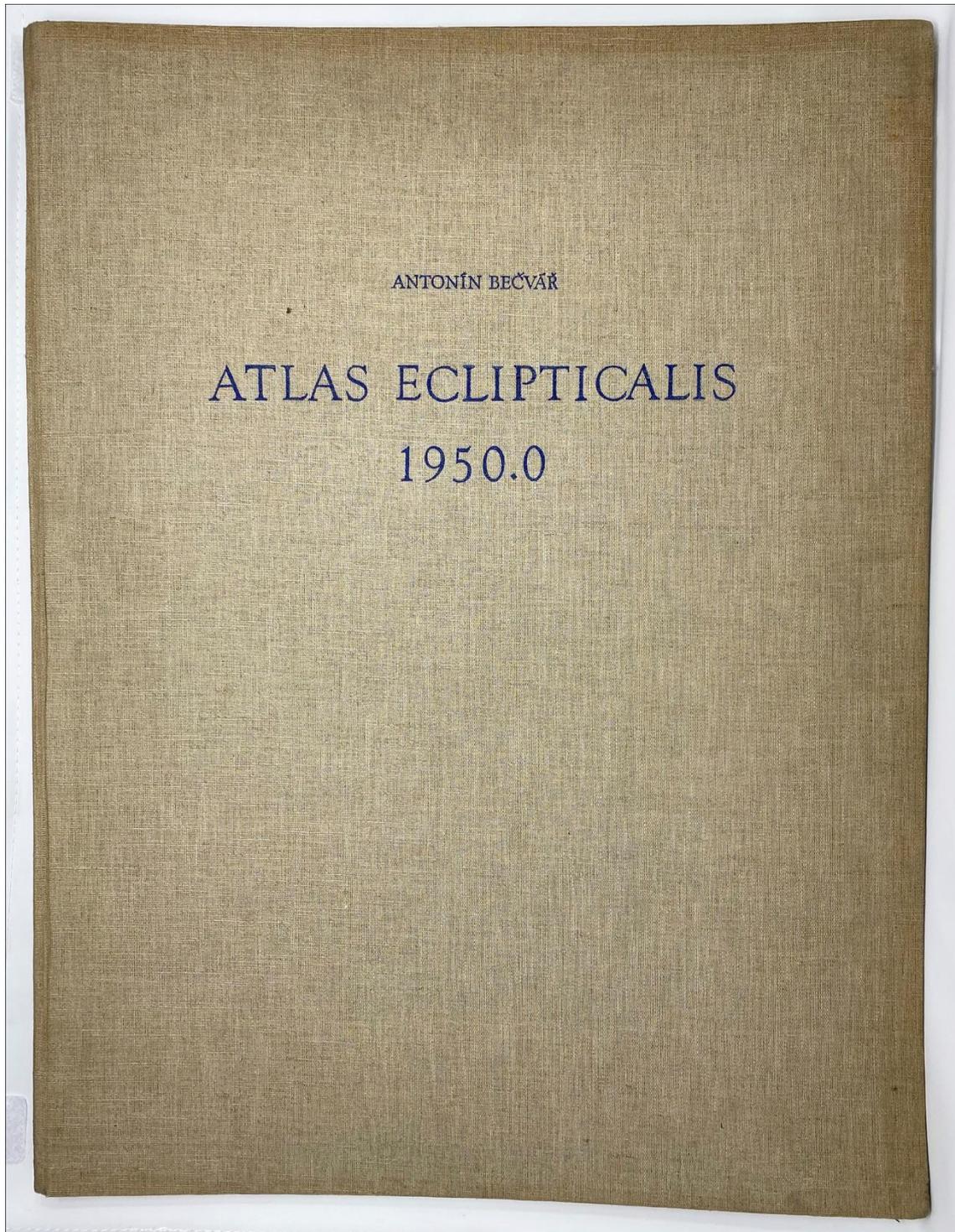


Figure 6- Atlas Ecliptalis. Author's personal copy.

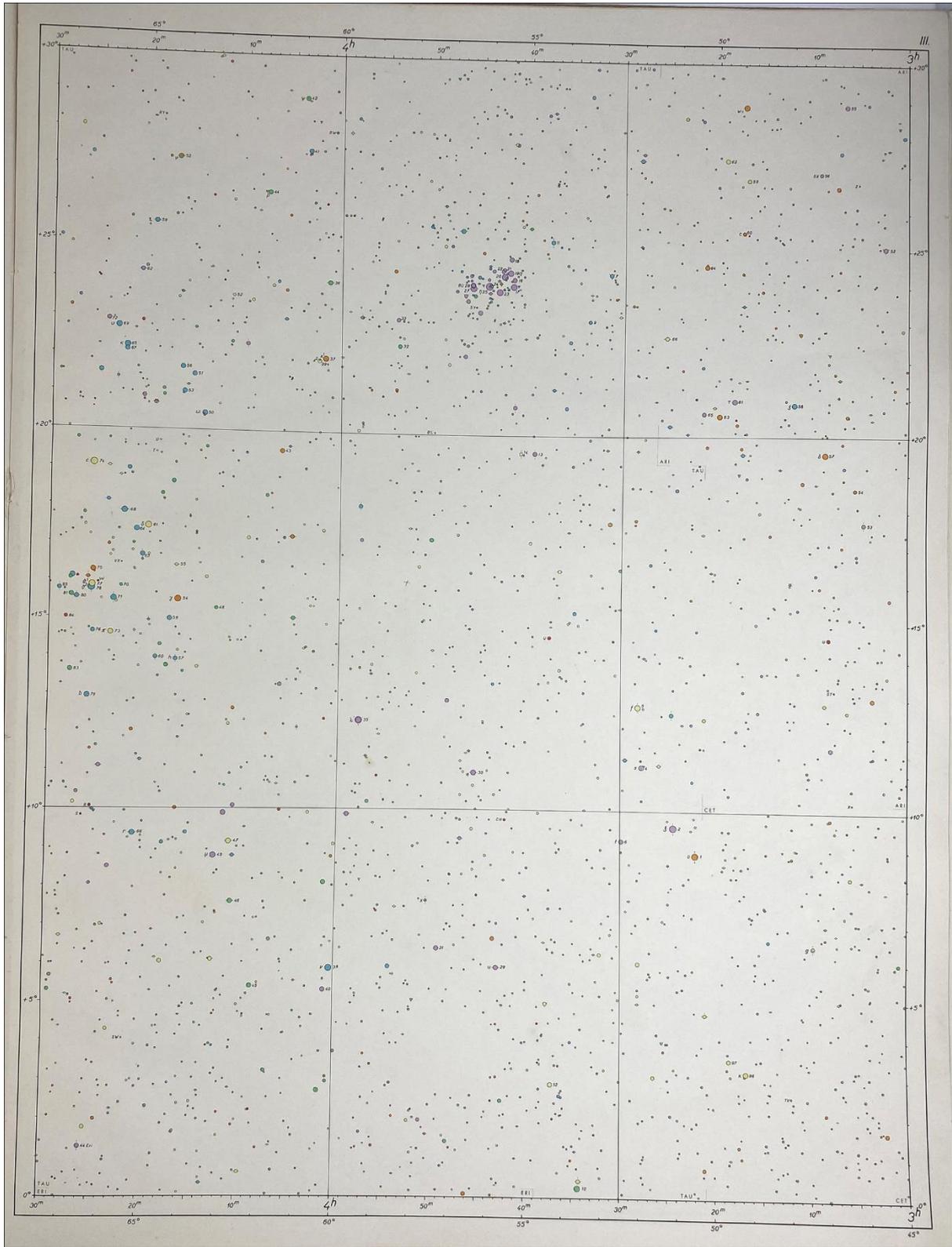


Figure 7- Atlas Eclipticalis. Author's personal copy.

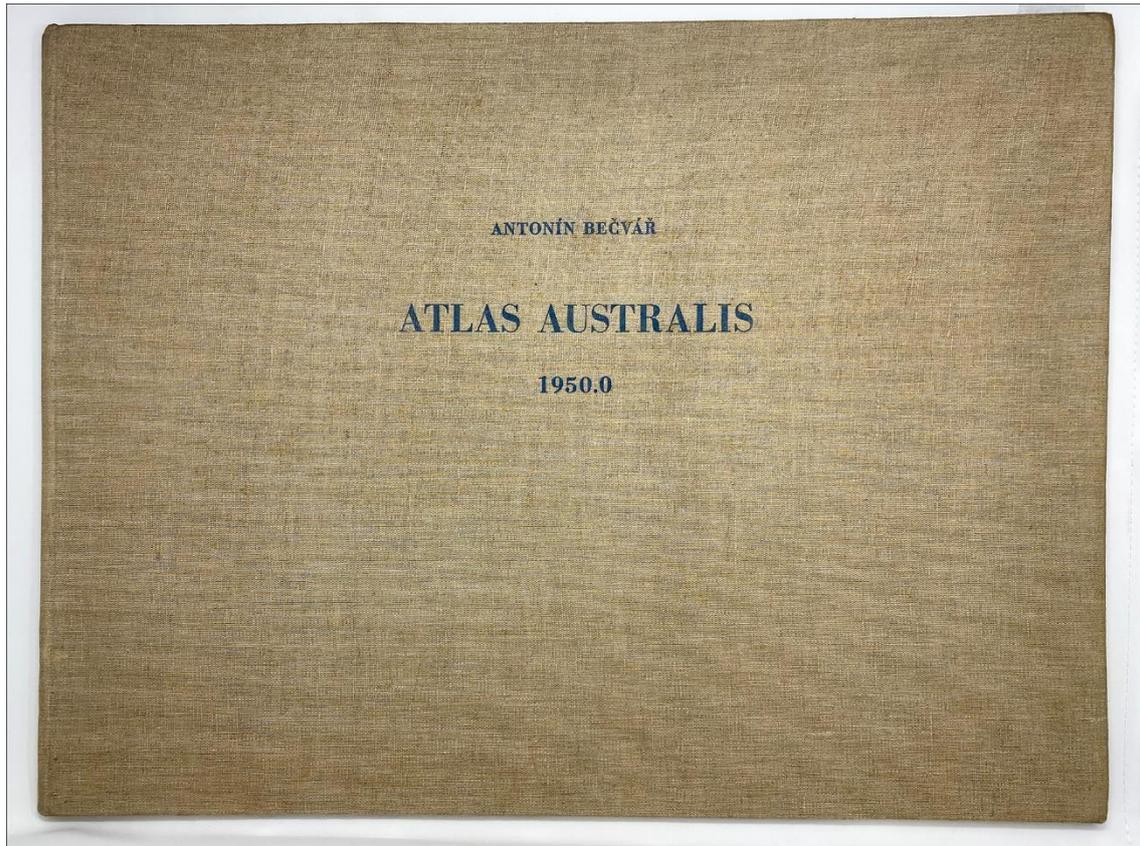


Figure 8- Atlas Australis. Author's personal copy.

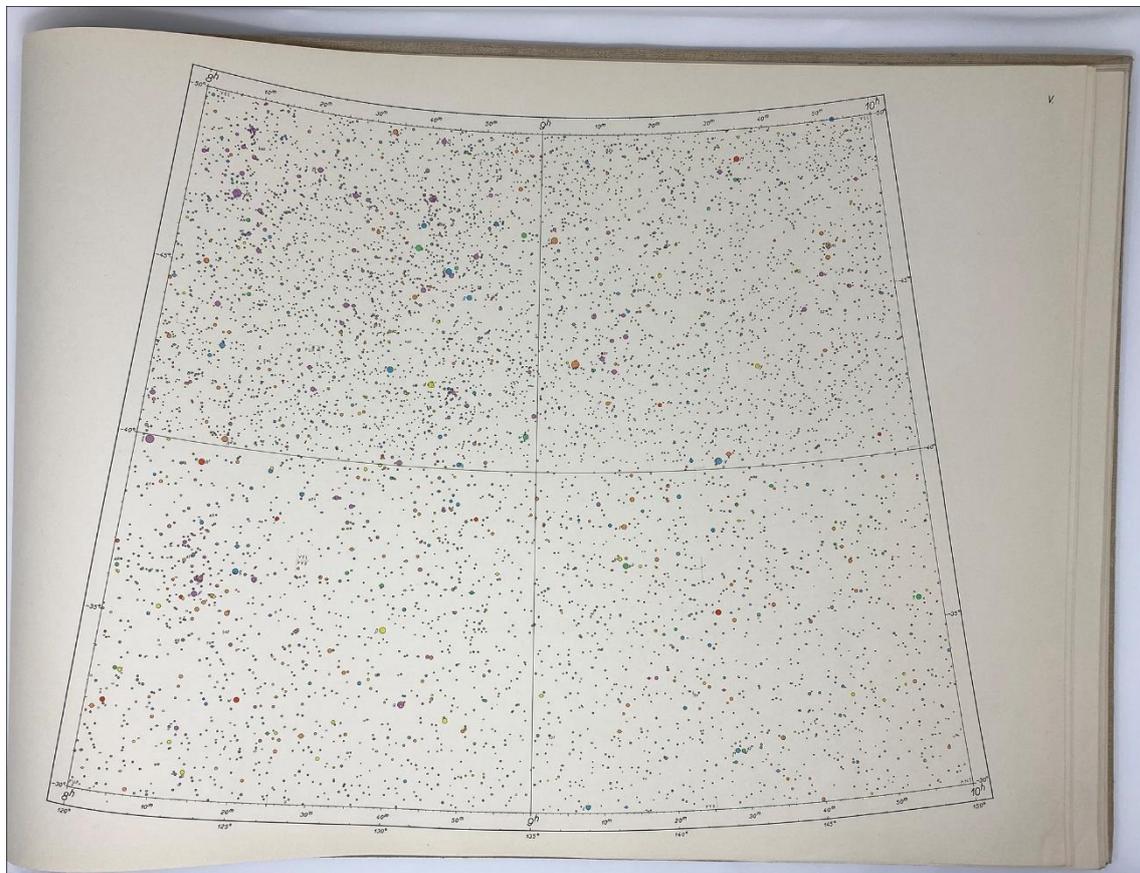


Figure 9- Atlas Australis. Author's personal copy.