

he described in detail the classical 48 constellations that had been established by Ptolemy in the *Almagest*.⁴ For each constellation he gave a detailed discussion of the individual stars; a list of indigenous Arabic star names of objects falling under the Greek constellation, together with a precise identification of each object with the respective Ptolemaic stars; two drawings of the constellation, one as seen in the sky, and one as seen on the celestial globe (where the left and right sides, and East-West, are always reversed); and a catalogue of the stars belonging to that constellation. Here, under the constellation of Andromeda, in the description of the indigenous Arabic names, he occasionally mentions the Andromeda Nebula. In describing the figure of a big Arabic "Fish" lying across the figure of Ptolemy's Andromeda,⁵ he says that this "Fish" is made up by two lines of stars beginning from the "nebulous spot" (*latkha sahabyiya*) which is close to the 14th star of the constellation (ν And, on the right side of the figure, being one of the three stars $\beta\mu\nu$ And on the girdle, or loin cloth, of Andromeda).⁶

This is an occasional reference, in al-Sufi's book, to the Andromeda Nebula. The author does not give more details about this object which did not form part of the material transmitted in Ptolemy's star catalogue; but it is evident that al-Sufi had observed the Nebula, and he used it, in context, as a point of reference in the description of the position of an old indigenous Arabic asterism.

The drawing of Andromeda with the big Fish, added to the description of the constellation, carefully indicates the "nebulous spot" mentioned in al-Sufi's descriptive text: it is marked by some dots on the mouth of the big Fish (see Fig. 1). In other manuscripts, in addition, the word *sahabi* ("nebulous") is written beside the dots on the Fish's mouth.

In the 13th century, there originated, perhaps in Sicily, a Western branch of the Sufi tradition, the so-called *Sufi Latinus corpus*, of which eight manuscripts have been found until now.⁴ It consisted, basically, of Ptolemy's star catalogue in the Latin version made in Spain, in the 12th century, by Gerard of Cremona (from the Arabic); but in the star coordinates the longitudes were converted to al-Sufi's value (= Ptolemy + 12°42'); further, to each constellation a drawing was added (i.e., one of the two drawings in al-Sufi's original work); and in some of the manuscripts in the title the author's name was mentioned as *Ebennesophi* (from the corrupted Arabic Ibn al-Sufi, instead of the correct form al-Sufi). Most of the eight Latin manuscripts have meticulously repeated the dots designating the "nebulous

ESO Pictorial Atlas Now Available

Just in time for ESO's 25th anniversary, the English, German and Danish versions of this beautiful atlas have now been published. French, Italian and Spanish versions are expected to follow in 1988. 90 colour plates and 147 black-and-white photographs of outstanding quality, accompanied by extensive captions, reference maps, complete plate data and indexes, introduce the reader to the southern sky. Many of the photographs are here published for the first time. Of special interest are photographs of Supernova 1987 A and of Halley's Comet.

The English version, titled "Exploring the Southern Sky", is available at Springer-Verlag New York, P.O. Box 2485, Secaucus, New Jersey 07094, USA (US \$ 39,-).

The German version, with the title "Entdeckungen am Südhimmel", may be obtained from Birkhäuser-Verlag, Postfach 113, CH-4010 Basel/Switzerland (DM 98,- until 31. 12. 1987, thereafter DM 128,-).

The publisher of the Danish version, "Sydhimlens Stjerner", is Rhodos, Strandgade 36, DK-1401 Copenhagen K, Denmark (DKr. 325,-).

The book can of course also be ordered from your local bookshop.

spot" (i.e., the Andromeda Nebula), in front of the big Fish's mouth, in the drawing of Andromeda with the big Fish (for a specimen, see Fig. 2).

It is interesting to see how carefully the Western copyists and draughtsmen have reproduced those dots beside the figure of Andromeda although they could not understand what they meant because al-Sufi's descriptive text itself had not been translated into Latin.

References

1. For the *Almagest*, see P. Kunitzsch, *Der Almagest. Die Syntaxis Mathematica des Claudius Ptolemäus in arabisch-lateinischer Überlieferung* (Wiesbaden, 1974); Claudius Ptolemäus, *Der Sternkatalog des Almagest. Die arabisch-mittelalterliche Tradition*, i: *Die arabischen Übersetzungen*, Herausgeg., ins Deutsche übertragen u. bearb. v. P. Kunitzsch (Wiesbaden, 1986). A recent

English translation (from the original Greek) is: *Ptolemy's Almagest*, Translated and Annotated by G.J. Toomer (London, 1984).

2. Ptolemy, *Tetrabiblos*, ed. and transl. F.E. Robbins (The Loeb Classical Library, repr. Cambridge, Mass./London, 1971), p. 320-321.
3. See P. Kunitzsch, *apud* W. Hübner, *Die Eigenschaften der Tierkreiszeichen in der Antike* (Sudhoffs Archiv, Beiheft 22; Wiesbaden, 1982), p. 358f.
4. P. Kunitzsch, article "al-Sufi", in: *Dictionary of Scientific Biography*, vol. xiii (New York, 1976); *idem*, "The astronomer Abu l-Husayn al-Sufi and his Book on the Constellations", *Zeitschr. f. Geschichte d. Arab.-Islam. Wissenschaften* 3 (1986), 56-81.
5. See P. Kunitzsch, *Untersuchungen zur Sternnomenklatur der Araber* (Wiesbaden, 1961), no. 126a.
6. H.C.F.C. Schjellerup, *Description des étoiles fixes... par Abd-al-Rahman al-Sûfi* (St.-Petersbourg, 1874; repr. Frankfurt/M., 1986), p. 118-119.

ALGUNOS RESUMENES

Bengt Strömgren (1908-1987)

Bengt Strömgren, ex presidente del Consejo de ESO (1975-1977) falleció el 4 de julio luego de una corta enfermedad. Su presidencia ocurrió en un momento particularmente difícil en la historia de la ESO. Gracias a su sabiduría y la manera confiada y decisiva como manejó los asuntos de ESO, se pudieron evitar muchos riesgos y se pudo establecer un alto grado de armonía entre las delegaciones de los estados miembros, que aun perdura.

Bengt Strömgren fue un destacado científico. En el año 1922, a la edad de 14, publicó sus primeros resultados sobre el cometa Baade 1922c en "Astronomische Nachrichten" (217, p. 345). Uno de sus últimos pre-

prints apareció tan solo pocos días antes de su deceso. Bengt, hijo de Elis Strömgren, Director del Observatorio de Copenhagen, obtuvo su doctorado en 1929, fue profesor de astronomía en 1938 y director en 1940. Entre los años 1951-57 fue director del Observatorio Yerkes de la Universidad de Chicago. Durante los siguientes diez años fue miembro de la Facultad del Instituto de Estudios Avanzados en Princeton. En 1967 regresó a Copenhagen para ocupar la "Casa de Honor", ser profesor de astrofísica y durante varios años director de NORDITA, el instituto de investigación común de los cinco países nórdicos. Entre los años 1970 hasta 1973 fue presidente de la Unión Astronómica Interna-