



Photograph: H.H. Heyer

This book tells the early story of the European Southern Observatory (ESO), the international organization for cooperation in European astronomy.

It begins in the early 1950's when leading European astronomers initiated the project and started a search for the best possible observatory site under the comparatively unexplored southern sky. In 1962, ESO was established by an international convention and a few years later a remote mountain top in the Chilean Atacama desert, La Silla, was acquired. It took another decade to transform this site into the world's largest optical observatory, now serving more than 2000 astronomers in eight member countries.

The story of ESO is that of a highly successful European integration in a fundamental field of science, providing European scientists with modern facilities for front-line investigations beyond the capacities of the individual member states.

The author is the well-known Dutch astronomer Professor Adriaan Blaauw, who has been closely associated with ESO during all of this time. He actively participated in many of the events described and as a former Director General of ESO (1970 - 1974) he possesses first-hand knowledge of the organization and the way it works. A scientist of international renown, Professor Blaauw is also a noted amateur historian in his home country.

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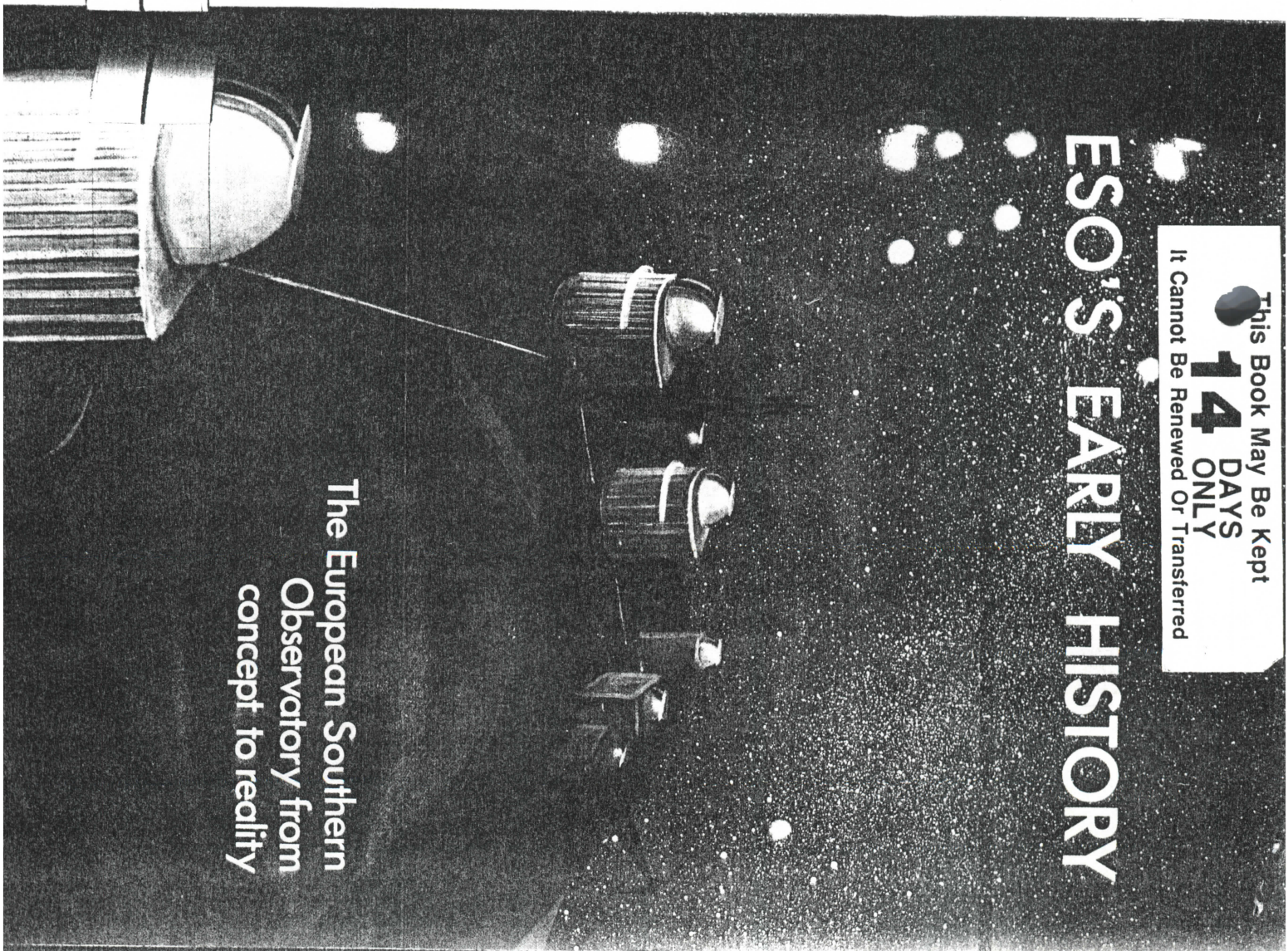


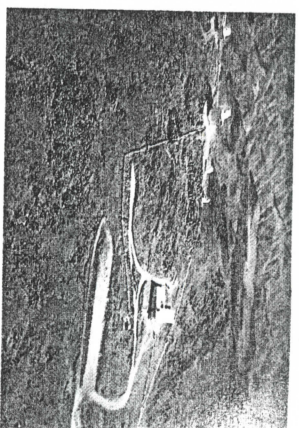
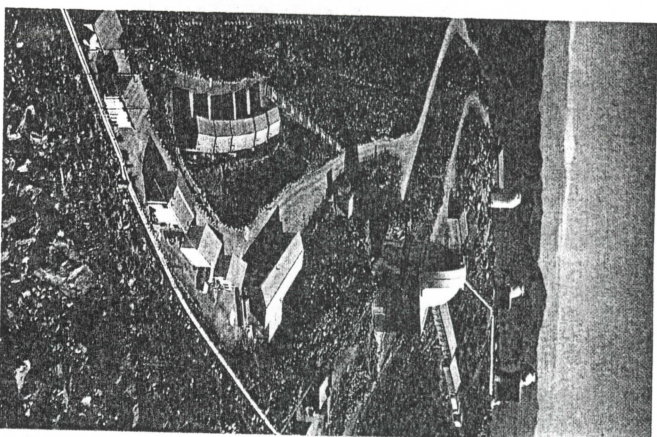
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ESO'S EARLY HISTORY

The European Southern
Observatory from
concept to reality





OVERVIEWS OF LA SILLA, 1968

Left photograph, June 1968: Taken from near the water tanks, from foreground to background: the provisional Residential Area, the Schmidt telescope building, and from left to right, buildings of the GPO, the 1-m, and the 1.5-m telescopes.

Right photograph, October 1968: Aerial photograph taken from the North-East. From left to right: the buildings of the 1-m, the 1.5-m, the provisional 1-m, and the Bochum telescopes, and the Hostel. In the foreground before the Hostel, site preparation for dormitories. This photograph may be compared to the one taken from the same position in October 1966, shown on page 97.

Both photographs by Eric Maurice in the ESO Historical Photographs Archives.

successive approximations [11]. Principal conditions of the contract were that ESO would be granted 30% of the observing time, that apart from the telescope, the DFG also paid for the dome, and that neither of the parties would terminate the agreement within 20 years.

Meanwhile, the building for the Bochum telescope was completed in 1967, and equipped in April 1968 with a prefabricated dome as had also been done for the preliminary housing of the 1-m telescope. Contrary to what was done

for later national telescopes, the Bochum building included dormitory facilities for the observers. The telescope was installed in September 1968. A description, including the Bochum photometer, has been given by Th. Schmidt-Kaler and J. Dachs in *ESO Bulletin* Nr. 5 of December 1968.

Already on the occasion of this first Council discussion, in November 1966, there was reference to two other potential proposals. A. Reiz, attending the meeting as "observer" on behalf of Denmark that would join ESO in August 1967, expressed the hope that a national 1.5-m Danish telescope, still in the planning stage, might be put on La Silla, and there was also reference to a (distant) possibility that Uppsala Observatory might move the Schmidt telescope it had in 1957 installed at Canberria, Australia, to La Silla – a proposition that was never realized. We shall return later to the Danish 1.5-m telescope.

The Danish 50-cm Telescope

The second national instrument installed was the 50-cm photoelectric telescope belonging to Copenhagen Observatory. Early consultations with the Director of ESO led to a proposal for the Council meeting of December 1967, just after Denmark's joining ESO. At that time, the telescope was meant to be temporarily only on La Silla, for a specific programme, and it therefore was first, in February 1969, installed in the provisional building of the 1-m telescope after the latter had been moved into its proper dome. However, already in the course of 1968 Council agreed in principle to install the telescope on a more permanent basis, which led to first draft contracts between ESO and its owner of 1968 [12]. The agreement in its final form between Copenhagen University and ESO was signed only in 1975, simultaneously with that for the Danish 1.5-m telescope [13]. For the housing of the telescope a new dome was built, identical to the one for the ESO 50-cm instrument. These buildings were finished in 1971 and in it the telescope became operational again in the same year.

The Danish National 1.5-m Telescope; Basic Considerations

It would take many years until the next national telescope would be installed: the Danish 1.5-m. (A 40-cm telescope with its housing and adjacent office space was installed in 1975 by the Geneva Observatory; however, as Switzerland was not yet a member state of ESO at that time, its status was different from that of the telescopes discussed here.) The Danish 1.5-m was the subject of an application by Reiz and Strömgren of 9 November 1968 [14] which was accepted in principle by Council in its meeting of June 1969. However, the telescope became operational only a decade later, in October 1979, an epoch well beyond the period covered by this book. Council's