

The ESO Historical Archives (EHA)

INVENTORY PER DECEMBER 1992

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Historical archives provide us with the beacons along which historians steer their stories about the past. When I wrote my articles on the history of ESO for *The Messenger* and the book "ESO's Early History", I was guided by a small, but very valuable collection of documents pertaining to the years of ESO's beginning. They originated from people who had been intimately involved in the creation of ESO (J.H. Oort, O. Heckmann, J.H. Bannier and myself) and had been transferred to ESO as a nucleus for its Historical Archives; a nucleus to be cherished and, hopefully, to be extended in the years to come. Most of the documents dated from before 1975. Subsequently some more recent items were incorporated, however only on the basis of provisional classification; their incorporation should be subject to future scrutiny.

Naturally, these archives are useful only if there is a guide to tell the student what is available and where it may be found. Such a guide is now provided in my booklet "ESO's Historical Archives

(EHA); Inventory per December 1992" that appeared in December 1992. In it, the documents (letters, circular letters, maps, etc.) have been ordered in a system that takes into account the origin of the document and subsequently classifies it into categories and sub-categories. For instance, item I.C.2.3.a refers to a report on a meeting of the Working Group for site tests in South Africa of January 1958, and in this case the first, roman classification number, I, tells that this document belongs to one of the collections originating from outside ESO; the letter C means that it belonged to the collection contributed by myself; the next number, 2, refers to the subdivision dealing with the early site testing; and the subsequent number, 3, to the folder containing some test reports. The system was used in my historical accounts mentioned before.

For the moment, the booklet is primarily meant as an internal ESO publication and therefore has been distributed outside ESO on a limited scale

Access to the ESO Historical Archives

The ESO Historical Archives described here, are accessible to outside professional researchers by special permission only. Note, however, that the Archive is still in the process of being supplemented with new materials from different sources and that certain, more recent parts are not yet released for general use.

For more information, please contact:

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only, among some historians of astronomy or astronomers known to have a strong historical interest. A wider distribution may be considered at a later stage.

The Collection is in the care of ESO's Librarian at the Garching Headquarters. The documents are stored in cardboard boxes in a special room where it is supervised by the Librarian, and access may be requested through her. As some of the correspondence in the archives still is of a confidential nature, not everything is accessible yet.

The ESO C&EE Programme Begins

The ESO programme to support astronomers in Central and Eastern European countries, also known as the ESO C&EE Programme, was adopted by the ESO Council in its meeting in December 1992, cf. *The Messenger* 70, p. 8 (December 1992).

By this important action, the ESO Council recognizes the great potential of astronomy and astrophysics in the C&EE countries and the need to ensure its continuation during the present transitional period. The Programme will begin in early 1993 and have an initial duration of 3 years. It will be carried out within the financial frame stipulated by the ESO Council, and will be administered with a minimum of bureaucracy.

The details of the Programme were worked out during the month of January and a document, from now on referred to as the "Application Document", was produced. It contains all details about how to apply, the general conditions of the Programme, and the standardized application forms and was sent to about 1000 addresses at the end of January 1993. This included more than 700 as-



EUROPEAN SOUTHERN OBSERVATORY

tronomers, most of which are IAU members, in the C&EE countries and all major astronomical institutes in the ESO member states. Additional copies of the Application Document may be obtained

by request at the address listed below. Judging from the number of inquiries received since then, the interest is intensive and by early March quite a few applications had already been received at ESO.

A guiding principle of the ESO C&EE Programme is that support will be provided on the basis of scientific and technical merit. It is the aim to help C&EE astronomers to continue to do good research at their home institutes, thus contributing to the maintenance of the scientific level and, thereby, to the survival of C&EE astronomy, and also to provide potential benefits to astronomy in ESO member states.

The Programme initially encompasses a number of well-defined subprogrammes, with the following titles and definitions (all further details are available in the Applications Document):

A. *ESO C&EE Scientific and Technical Programmes*: support of a well-specified and/or technical Programme within astronomy and astrophysics, to be carried out at one or more C&EE institutes/observatories;

B. ESO C&EE Fellows: support of individual C&EE astronomers to perform specific research programmes in astronomy or astrophysics;

C. ESO Visiting Astronomers: support of individual astronomers from ESO member states to visit C&EE institutes;

D. Participation in ESO Conferences: support of participation of C&EE astronomers in conferences organized or sponsored by ESO;

E. Exchange of Software: support of travels by C&EE astronomers to institutes/observatories in ESO member states in order to exchange software, install software systems, etc.; and

F. ESO Publications: free copies of ESO publications to C&EE institutes.

These subprogrammes are not necessarily exhaustive; they may be adjusted and others may be added, if and when other suitable modes are identified.

The first deadline for receipt of applications at the ESO Headquarters in Garching has been fixed as *15 April 1993* and the next ones will follow at three-month intervals. All applications which are received in time will be scrutinized by a special ESO C&EE Committee, composed of a small number of astronomers from in- and

outside the Organization. The outcome will be announced to the applicants immediately thereafter, in most cases within one month after the deadline.

All correspondence related to this Programme shall be directed to: ESO C&EE Programme, Karl-Schwarzschild-Str. 2, D-8046 Garching bei München, Germany (Tel.: +49-89-320060; Fax: +49-89-3202362; Tlx.: 528 282 0 eo d).

It is expected that the next issue of *The Messenger* will contain an overview of the initial experience and include a list of the first support allocations.

R.M. WEST, ESO

Availability of Schmidt Plate Emulsions

On January 18, 1993, a malfunction in a compressor combined with problems in the safety system caused overheating in the cold storage plate vault outside the Schmidt building and the unexposed plates kept there were destroyed. Already exposed plates are kept in the Schmidt building itself and were not affected. Most of the plates lost were old and were used only for focus determinations and other tests. Unfortunately, our latest shipment of plates from Kodak had recently arrived and been stored, and they were lost, thus jeopardizing the scientific work at the Schmidt telescope.

To everybody's relief, Kodak was able

to deliver IIIa-J, IIIa-F and IV-N plates with only four weeks' delivery time. For IIa-O, 098-04 and 103a-D emulsions, Kodak presently has problems with manufacture, and they will not be available until the end of the year. Instead of the IIa-O plates, which are the most commonly used at the Schmidt, we are looking into purchasing plates with the very similar ZU-21 emulsion from the German company ORWO. With the stock of plates that were kept in the freezers in the Schmidt building we are able to carry on with the Schmidt operations until the new plates arrive, and there will therefore be only a minor impact on the majority of programmes

carried out at the Schmidt telescope.

Work is planned to begin later this year on a new plateholder that will accept emulsions on film rather than on glass. Apart from very substantial savings in operational costs, this means that programmes which are not aimed at astrometric work can benefit from new highly sensitive and fine-grained emulsions like the Kodak 4415 emulsion. Programmes that require glass plates will of course be carried out as always. After we have gained experience with this new facility, an announcement of availability will be made here in *The Messenger*.

BO REIPURTH, ESO-La Silla

Physical Study of Trojan Asteroids: a Photometric Survey

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Introduction

Since their formation in the solar nebula, asteroids belonging to the main belt have been altered mainly by mutual collisions, which take place at typical impact velocities of about 5 kilometres per second. The projectile-to-target mass ratios quite frequently reach values of the order of 10^{-3} , which can produce that catastrophic fragmentation of the target asteroid. According to many investigators, this ongoing collisional process has had a number of important

consequences, ranging from the formation of dynamical families and dust bands to the insertion of meteoroids and Aten-Apollo-Amor objects into planet-crossing orbits and to the generation of a variety of peculiar collisional outcomes (for example, "rubble pile", asteroids, binaries, "naked" metallic cores).

One of the main motivations for studying asteroids is that they are believed to be more "primitive" than planets, i.e. closer in size, composition,

and other physical properties to the population of planetesimals from which the planets accreted. It is then natural to wonder which properties are just products of collisions and which ones in some way "remember" the primordial state, when disruptive impacts did not occur and planetesimals, in the asteroid belt as well as in other zones of the solar nebula, were gradually accumulating into planetary embryos.

Were it possible to quantitatively model the subsequent collisional evolution of