

HISTORICAL ARCHIVES IN ITALIAN ASTRONOMICAL OBSERVATORIES: THE "SPECOLA 2000" PROJECT¹

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Abstract: Italy's well-consolidated tradition in astronomy is fully witnessed by its rich archival heritage. Astronomical records are stored in many observatories and universities, as well as in libraries and in private institutions. In 2000 a project was promoted to arrange and produce inventories of all material kept in Italian observatory archives. The project was planned by the Società Astronomica Italiana, and financial support was provided by the Italian Ministero per i Beni e le Attività Culturali. In this paper, the results obtained thus far are presented and commented on.

Keywords: Astronomical archives, Italian observatories, "Specola 2000" Project

1 INTRODUCTION

Italy's well-established tradition in astronomy is fully witnessed by its impressive astronomical heritage, which consists of archival and bibliographic material, as well as historical instruments. About seventy-five percent of this material is located in astronomical observatory archives.

There are twelve astronomical observatories in Italy that are supported by Government funding, not by privates or by foundations. This abundance of observatories is due to the political history of Italy: for many centuries the country was divided into small states, until political unity was achieved in 1870, after the wars of independence and the Risorgimento events.

Italy's first 'institutional' observatories were established in the eighteenth century (as in the majority of the other European nations), and at this time Italy was composed of several different states. Between 1711 and 1819 each of them established one or two observatories.

After political unity, the Government at first decided to preserve the *status quo*, but this implied a great financial commitment. To maintain and fund twelve different astronomical observatories was an unrealistic target for the new national Government whose finances needed to be invested in more urgent areas (such as education) rather than in astronomical research.

In 1874 a reform project was presented by the astronomer Pietro Tacchini (1838–1905), proposing a classification of Italian observatories into research observatories, university observatories and meteorological observatories. The Government almost completely accepted the proposal, and in 1876 the Minister, Ruggiero Bonghi (1826–1895), signed the

decree that reformed the observatories, but this reform was never fully applied, for various political reasons.

Perhaps because this reform was a partial failure, three more observatories were established at the end of the nineteenth century. As a result, after the Second World War and the annexation of the ex-Austrian territories, the total number of the Italian observatories was twelve—which is the current number.

Currently, astronomical archives are found in many institutions (not just the twelve 'official' observatories), including universities (e.g. public institutions, like Bologna University, and private institutions, like the Papal Gregorian University), prestigious libraries (e.g. the Biblioteca Estense in Modena and the Istituto e Museo di Storia della Scienza in Florence) and private collections (e.g. family archives of certain astronomers).

2 EARLY ATTEMPTS AT PRESERVATION IN ITALIAN OBSERVATORIES AND IAU RESOLUTIONS

Concerning observatories, an important effort for the conservation of historical materials has been made since the 1980s, thanks to a growing interest in the field of history of science.

The first Italian observatory to pay attention to its archival heritage was Brera Observatory in Milan, which started a program of preservation and inventorying in 1983. Following this example, other observatories decided to arrange their archives, and the prominent role of Edoardo Proverbio in this regard is worth mentioning. Through the History Working Group of the Società Astronomica Italiana, in 1989 and 1993 he arranged two national meetings devoted to the conservation of astronomical archives, books and instruments.

In an international context, it is important to mention that the following Commission 41 (History of Astronomy) resolution was passed at the 1991 General Assembly of the IAU in Buenos Aires:

(1) to establish a register of the whereabouts of all extant astronomical archives of historical interest; (2) to impress on observatories and other institutions their responsibility for the preservation, conservation, and where possible, cataloguing of such archives; (3) to search for an institution that will allocate space and funds for maintaining such a register and publishing it. (Resolution C41 ..., 1991).

Commission 41 then created an Archives Working Group to further the objectives of this Resolution, and in the following three years some progress was made in compiling national inventories of astronomical archives.

Two further archival resolutions proposed by Commission 41 were adopted at the 1994 General Assembly of the IAU in The Hague; a number of members presented papers on their archival researches; and there were also discussions regarding IAU archives. A further archival resolution was discussed at the Commission 41 Business Meeting and adopted at the 1997 General Assembly of the IAU in Kyoto; a half-day Special Session on "Inventory and Preservation of Astronomical Archives, Records and Artifacts" was held at the 2000 General Assembly of the IAU in Manchester; and the 2003 General Assembly of the IAU in Sydney included a half-day meeting of the Archives Working Group. Many of the papers from the Manchester and Sydney meetings were subsequently published in a special 'heritage' issue of the *Journal of Astronomical Data* (Volume 10) in 2004.²

3 THE "SPECOLA 2000" PROJECT

In July 1999 the Ufficio Centrale Beni Archivistici of the Italian Ministero per i Beni e le Attività Culturali expressed to the Società Astronomica Italiana its interest in starting a project to preserve the archives in the official Italian observatories.

A joint Commission was then formed to prepare a report on the current situation of the archives, and to propose steps for the development and the completion of the project (Fodera et al., 2000; Pastura, 2005). At the end of 1999 the "Specola 2000" Project for the inventorying of Italian observatory archives was ready to begin.³

The following steps were identified:

- Preliminary Phase: to survey all archival material more than 40 years old kept in the observatories. [This Phase was concluded in March 2000.]
- Phase 1: to arrange and produce inventories of the archives a) not yet inventoried, or b) partially inventoried; the digital descriptions of the items were compiled following the rules laid down by the International Standard Archival Description (ISAD).
- Phase 2: to complete or to start the cataloguing of the astronomers' correspondence.
- Phase 3: to catalogue the photographic material (with the help of experts).
- Phase 4 (final): the merging of the observatory archival documents with astronomical archives held in other institutions.

From the start it was agreed that archives which in the course of time have lost their 'order' should be brought back to the organizations from which they originated.

The project was initially supported by the Ministero per i Beni e le Attività Culturali and by the Consorzio Nazionale per l'Astronomia e l'Astrofisica. The latter institution was established in 1996, in order to coordinate the activities at all of the 'official' Italian observatories.

The Ufficio Centrale Beni Archivistici asked the District Superintendents to send one or two archivists to each observatory in order to carry out the work, while the observatories designated one person (generally the librarian) to supervise this work. The observatories also assisted the archivists by providing them with adequate work space, as well as stationery and technical support.

In 2002 all the Italian observatories merged into the National Institute for Astrophysics (INAF) and, since then the Specola 2000 Project has been carried out within the INAF Libraries and Historical Archives Working Group.

The Specola 2000 Project was born under the patronage of the Società Astronomica Italiana, but it was conceived and coordinated by Giorgia Fodera and Agnese Mandrino respectively, as Scientific and Technical Coordinators. In 2003, Giorgia Fodera retired, and was replaced by one of the authors of this paper (F.B.).

As Table 1 indicates, currently the archival collections in seven different observatories have been either partially or totally inventoried, and five of these are now entirely or partially on line (Mandrino et al., 2007). Meanwhile, work on an eighth observatory collection has just started, so overall there has been excellent progress with Phase 1. Note, also, that the archival collections at two of the observatories were inventoried prior to the commencement of the Specola 2000 Project.

Table 1: Status of the Specola 2000 Project in 2006

Status	Observatory
Complete	Bologna (on line)
Partially complete	Brera-Milan (on line), Rome, Palermo, Catania [each about 80% complete], Arcetri-Florence (Phases 1-2) [about 60% complete] (on line) Padua [about 50% complete]
Just Started	Trieste
Not Yet Started	Collurania-Teramo, Cagliari
Completed Before 2000 (Pre-'Specola 2000')	Capodimonte-Naples (on line), Turin (on line)

The next steps of the Project are the completion of the Phases 1 and 2.

4 FUTURE DIRECTIONS

Following the early success of the Specola 2000 Project, the INAF Museums Working Group intends to implement a similar project (MuSA 2009—Museo della Strumentaria Astronomica) in order to preserve and catalogue the historical instruments kept in museums and collections of the different Italian astronomical observatories. The aim of MuSA 2009 is

to build on the start made by the Specola 2000 Project and focus on the conservation of the historical astronomical heritage of Italy's observatories (see Chinnici et al., 2006). This will be the main focus during the next three years, and it is hoped that the Italian experience will stimulate analogous initiatives in other countries.

5 NOTES

1. This paper was presented in the Archives Working Group meeting at the 2006 General Assembly of the IAU in Prague.
2. The contents are available online at <http://www.vub.ac.be/STER/JAD/JAD10/jad10.htm>
3. This project is described on the following web site: www.archivi.beniculturali.it/divisione_III/progspecola.html

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- Fabrizio Bònoli is Professor of History of Astronomy at the Bologna University and Vice-president of the Società Astronomica Italiana. He is the current Scientific Coordinator of the Specola 2000 Project, and is the author of many papers and editor of many books, especially on the history of astronomy in Bologna during the seventeenth and eighteenth centuries.