

The Historical Archive of the Arcetri Astrophysical Observatory: Antonio and Giorgio Abetti Archive

Antonella Gasperini

*INAF-Osservatorio Astrofisico di Arcetri,
Largo E.Fermi n. 5, Firenze, Italia
gasperini@arcetri.astro.it*

Roberto Baglioni

*Dipartimento di Astronomia e Scienza dello Spazio,
Università di Firenze, Largo E. Fermi n.2, Firenze, Italia
baglioni@arcetri.astro.it*

Abstract. In 1993, during the renovation of the library, we found boxes containing letters, reports, papers, scientific notes, circulars, conference proceedings, astronomical data collections, books, maps, invoices, balance sheets, obituaries, pictures and spectrograms, drawings and journal cuttings. The archival material spanned the years from 1893 to the early 1970s. However, for the time being, only Giorgio Abetti's correspondences are being considered (about 2300 items). In addition, a complete bibliography of Antonio and Giorgio Abetti's publications have been prepared so it is possible to complete the reconstruction of both personalities.

1. Antonio and Giorgio Abetti

Antonio and Giorgio Abetti were directors of the Arcetri Astrophysical Observatory from 1895 to 1925 and from 1925 to 1954 respectively; and, they left their indelible mark on Italian astronomical research. Antonio Abetti's specialty was positional astronomy and he observed minor planets, comets, stellar occultations and partial solar eclipses.

In 1874, he participated in the Italian expedition directed by Pietro Tacchini in Muddapur, Bengala, in order to observe the transit of Venus on the solar disk. He built astronomical instruments such as the Amici equatorial and the small Bamberg meridian, but, above all, he gave new life to the Arcetri Observatory following the death of Wilhelm E. Tempel, an amateur astronomer and an excellent lithographer, who was Director of the observatory from 1875 to 1889.

From the onset, the scientific activities of Giorgio Abetti were noted for being unusual. His international collaborations were established with George E. Hale in 1908 and their friendship lasted a life time. In 1913, G. Abetti took part, as a geodetic and geophysical astronomer, in the De Filippi expedition in Karakorum, Himalaya and Turkestan.

Since 1921, Giorgio Abetti initiated the idea of constructing a solar tower on the Arcetri hillside. Thanks to the scientific and financial help of Hale, in 1923 the solar tower began construction, and in 1925, the same year of his appointment as Director of the Arcetri Astrophysical Observatory, the solar tower was officially completed.

In 1929, Giorgio Abetti was the author of the section of the *Handbuch der Astrophysik* on solar physics. He held many national and international academic positions and during his long life he never stopped being interested in solar and non solar (planetary and galactic physics) research.



Figure 1. The construction of the Arcetri Astrophysical Observatory (1872)

2. The Archive

In 1993, during the renovation of the library, we found boxes containing archival material. The boxes were comprised of letters, reports, papers and paper drafts, scientific notes, circulars, conference proceedings, astronomical data collections, books and book drafts, maps, invoices, balance sheets, obituaries, pictures and spectrograms, drawings and journal cuttings. The material inconsistently spans the years from 1893 to the early 1970s. Unfortunately, of the 98 envelopes and folders found, none contain a register or a summary of its contents.

For the time being, only the Giorgio Abetti correspondence is being considered (about 2300 items).

<http://www.arcetri.astro.it/BIBLIO/history.html>

Particularly interesting is the correspondence between Giorgio Abetti and George Hale about the construction of the Arcetri solar tower.

3. Specola 2000

The Arcetri Astrophysical Observatory library is part of the *Specola 2000* project that is supported by the Italian Ministry for the Arts and by the Italian Astronomical Society. The aim of this project is to preserve and to make known in the scientific community the archivistic patrimony of the Italian astronomical observatories.

http://www.archivi.beniculturali.it/divisione_III/specola.html

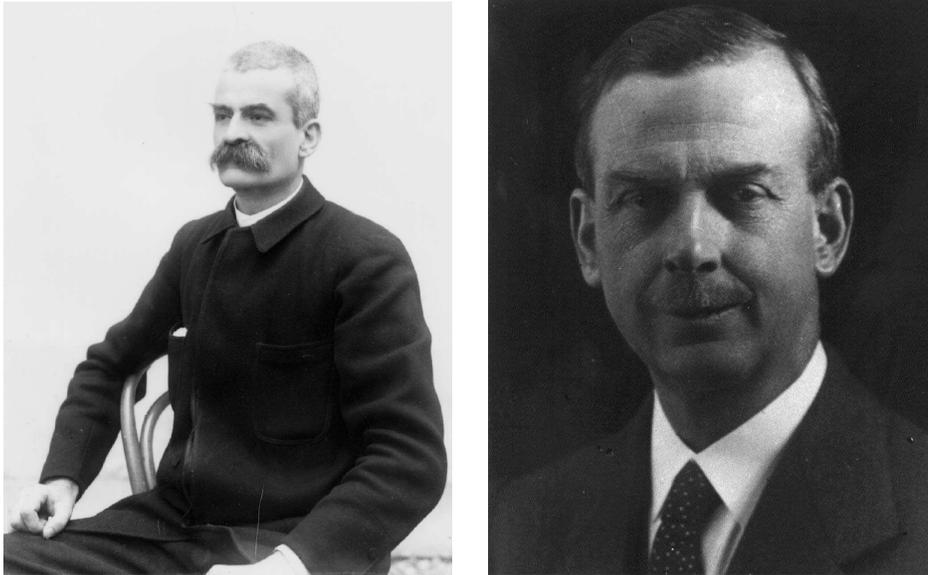


Figure 2. Antonio and Giorgio Abetti

4. The Bibliography

A complete bibliographic reference of Antonio and Giorgio Abetti's publications has been prepared and is now available on the web. The references are an important tool for researchers who are interested in studying nineteenth and twentieth century Italian astronomy.

<http://www.arcetri.astro.it/BIBLIO/bibliography.html>