

Abrief Synthesis of the Library of the Instituto y Observatorio de Marina at San Fernando (Cádiz, Spain) for Astronomy Students

David Almorza¹ and David Almorza²

¹: *Instituto y Observatorio de Marina de San Fernando (Cádiz, Spain)*

²: *Departamento de Estadística e Investigación Operativa. Universidad de Cádiz (Spain)*

Abstract: *This paper presents a brief synthesis of one of the best scientific Libraries in Spain: the Library of the Instituto y Observatorio de Marina at San Fernando (Cádiz), whose ample store is hereby offered to aid researchers and historians. A Library built during the 18th century in the Castle of Cádiz, an old and solid building, and at the end of the same century the Library was moved to San Fernando. In this paper there are also included some references about the store and about the history of the Library, as it cannot be understood one without the other.*

Key words: *Lybrary; San Fernando; Copernicus; Abulmasar.*

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I. History

The Observatorio de Marina was founded at Cádiz (Spain) in 1763. It was born as an annexe to the Academia de Guardia Marinas (Midshipmen Academy, the ancient Military Naval Academy), and was founded by Jorge Juan, the famous Naval Officer, in his desire to advance astronomical observations among the Navy crew. He set the Observatory in the Castle of Cádiz, an old and solid building with an excellent situation, looking on the sea to South and West. As director of the Academy, Jorge Juan called his friend and companion in the campaign for the measurement of the meridian in Peru, the French scientist Louis Godin.

Once the Observatory was installed in the Castle of Cádiz, its Library was initiated. From 1748 to 1750 Jorge Juan travelled to London and Paris on a delicate official mission, but he found time to buy many books for the Academy. At the end of 1752, there are documents about the arrival of books and instruments, possibly the ones he bought during the journey.

This is to be a constant character during the history of the Observatory, the ever-present zeal to enrich the Library. Along with Jorge Juan, the figure of José Carbonell appears in Cádiz. Navy Commissary and professor of mathematics and languages (French, English, Italian, Latin and Arabic). The most acknowledged title for Carbonell is that of 'Librarian'. In that time, the Jesuit College at Cádiz was closed, and Carbonell brought the best books from that library to the one in the Academy.

The Observatory remained in the Castle of Cádiz until 1798. It is the worthy work of Vicente Tofiño, who made the Observatory well known to the main scientific community. In this year, the Observatory was moved to a new building at San Fernando, and one of the main rooms, contiguous to the instruments and clock workshop, was devoted to the Library.

During all the 19th century, this zeal to increase and improve the Library continued. An important part of the Library of the Naval College of St. Charles at San Fernando was incorporated into the Library of the Observatory. Very often, books were ordered from different countries, and an interchange with similar establishments was initiated.

At mid-century, the Library underwent an important renewal and increase. It no longer occupied a single room but, displacing its neighbours, expanded to take their ample halls. Decoration and furniture still remain.

In 1856, the Naval Museum was created at Madrid and, within it, the Central Navy Library. To equip them properly, several establishments were ordered, among them the Observatory, to send all the books, notes, maps, etc., except those that were necessary for their own use and service. That year, the Observatory sent up to three thousand volumes, a very valuable contribution to the newly created organization.

In 1889, with Cecilio Pujazón, the director of the Observatory, a library catalogue was written with the mention of 10,839 bound volumes, not taking into account a great number of periodic publications, most of them received as interchanges.

The 20th century saw the consolidation of the Library. In the decade of the 60s, the Library advanced one step more and got a new hall in the same building. David Almorza Salas, director of the Library at that time, expected that future needs, 'already felt', determined new increments.

II. Description of the bibliography store

In December 1974, a catalogue of works and journals corresponding to the 15th to 18th centuries was issued (Almorza, 1974). In this catalogue, 1,084 works and 36 collections of journals are cited. In a brief resume of the store of the Library, we find four incunabula. The oldest one is 'Introductorium in Astronomia' (Abulmasar, 1489). The other three are 'Canones Tabularum Coelsetium Motum' (Bianchini, 1495); 'Astronomicorum Libri Octo' (Firmico, 1499) with parts in Greek characters and 'Naturae Historiarum' (Plinius Secundus, 1499). All of these books, as is true with most of the books conserved in the Library, are in perfect condition.

Very valuable books are 'Calendarium' (de Montereio, 1514) and 'Astronomicorum Caesareum' (Apiano, 1540), this copy belongs to the 'De Luxe' edition, extremely rare, printed on special paper with a filigree of grape-vine, and with plates and mobile parts.

Also in the Library is the first edition of 'Revolutionibus' (Copernicus, 1543). It has marginal notations of, at least, two people of different epochs; there is also a copy of the second edition (Copernicus, 1566). In a brief review, one finds an edition of the 'Almanach perpetuus' (Zacuto, 1602).

Among the interesting collection of journals, we can cite 'Philosophical Transactions of the Royal Society of London', from 1665 to 1886; 'Acta Eruditum', from 1682 to 1775 and 'Journal des Sçavans', from 1665 to 1792. In addition, the collections of Nautical Almanacs published in different countries and magnificent collections of publications of other Observatories, obtained in most cases by means of interchange, for example, Zi-Ke-Wei, Saint Petersburg, Paris, Belen, Río de Janeiro and Berlin.

It is convenient to cite two special sections within the Library. One of them contains several notes on the first works of the ancient Observatory at Cádiz. The other section comprises more than two thousand maps, plans and nautical charts, most of them from the 18th and 19th centuries.

This is, in summary, what the Observatory and Library are, doubtless one of the best scientific Libraries in Spain, whose ample store is hereby offered to aid researchers and historians.

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