

# Blending New with Old – A heritage library re-lived

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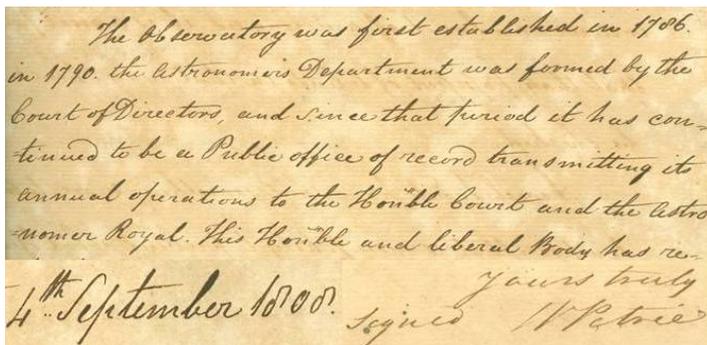
## Abstract:

More and more libraries all over the world are ready to re-model their space as technology has radically changed the way the libraries function. It is the balance between print and electronic resources which has necessitated the librarians and administrators to re-plan the space for optimum utility and also economically. It is a daunting task to satisfy all the requirements of space, resources, services and clientele to make the library more visible and better utilized. It is an additional challenge if the collections range from archival to current and to take care of the conservative procedure along.

Indian Institute of Astrophysics (IIA) library is an example with heritage collections and branches at different locations in India. IIA has a rich heritage dating back to 18<sup>th</sup> century, originating from Madras, and subsequently shifting to Kodaikanal and finally to Bangalore. It has unique challenges in blending the new with old in terms of resources and services and also to meet the mandate of retaining the heritage structure of the original library building at Kodaikanal. The onus of responsibility lies in retaining the status of the library at Kodaikanal, as one of the oldest libraries in India and at the same time utilize the historical contents for current research. The library has acquired valuable collections over the period and has the task of maintaining the asset. In the course of maintaining the collections within the static space, the present library personnel have learnt special skills and techniques to make the library more visible and meet the requirements of a state-of the art special library in astronomy in the country. As the institute is doing cutting edge research in astronomy & astrophysics in the country, it is imperative for the library also to remain current in collection and technology based services without sacrificing the essence of the inherited historical collections and the safeguarding techniques for preservation.

**Key words:** Indian institute of astrophysics, Kodaikanal observatory library, heritage collection, astronomy library

## A glimpse of History:



Madras Observatory established in 1786

Indian Institute of Astrophysics traces its origin to Madras Observatory (1786) which was shifted to Kodaikanal in (1899) and subsequently established in Bangalore in the year 1975. Madras observatory started as a private observatory in 1786 became a full pledged observatory for doing observational astronomy in the country under government direction.

The image displayed here is the **hand-drawn** picture **of the Madras Observatory building in the year 1792**. The two handwritten catalogues available in the library show that the library came in to existence along with the Madras Observatory at the close of the 18<sup>th</sup> century. The first catalogue for the years 1794-1812 written by calligraphers, lists 102 books and journal volumes and 52 manuscripts. The oldest book in the library collection '**Astronomia Nova**' by **Kepler** published in the year **1609** along with twenty more titles published in the 18<sup>th</sup> century are listed in this catalogue. It is presumed that there must have been space allocated as library, with shelves to accommodate this collection within this building.



The second library catalogue prepared in 1893 is an improvement on the earlier catalogue. In this, entries are made according to a dictionary format giving each book an entry both by its author and subject, and few entries are under the name of the observatory from where they are published. Much care has been taken in the preparation of this catalogue giving appropriate cross entries wherever necessary. 440 books and astronomical catalogues are listed in this catalogue. A receipt of 105 observatory publications and 31 journals through exchange and subscription is also recorded.

This image below is of the Madras observatory located in Nungambakkam around 1860, which was also the residence for the astronomer royal those days. The collection of books and journals in the observatory that time must have belonged to the individual astronomers who would have collected them for their personal use and gradually must have improved the collection according to their requirements. Since many other observatories all over the world existing that time started their own publications, it was a standard practice for those observatories to exchange their publications among the observatories on reciprocity. This is evident from the library catalogue entries, which has listed publications according to the observatories from where they were published. These publications also formed a major part of the library collection housed in this observatory building. In the year 1899, the observatory was shifted to Kodaikanal and the library along with its collection was also shifted.



Madras Observatory in 1860s

## **A potential heritage library at Kodaikanal:**

It was a challenge for shifting the library books and journals from Madras to Kodaikanal in Palani hills, especially in the ghat section as it is evident from the statement written in the annual report of 1900 by the then director Prof. Michie-Smith. It says '*As it was necessary that the books and instruments which had to be transferred from Madras, should be sent up the ghat in the dry weather, packing was begun in December, and by the end of March most of the cases- more than 1000 coolie loads- had reached Kodaikanal. All the cases of books were received before the rain began, and on the whole the removal has been effected with remarkably little damage considering the difficulties that had to be overcome.*' When the books reached Kodaikanal, they

were stored in Director's house and arranged in shelves which were designed from the floor to the ceiling. Every year the collection grew to include books & journals bought, received on gratis and those publications received on exchange. Continuous runs of many astronomical journals like Monthly Notes of Royal Astronomical Society, Astrophysical journal, and the observatory are available from vol.1. Several



Library building at Kodaikanal observatory



Front view of Kodaikanal library

volumes of Ephemeris and Almanacs received from different countries regularly are part of this collection. The major collection of the library is in the field of astronomy & astrophysics.

This library building at Kodaikanal is a single floor built to accommodate the library collection as well as the reading space. It also serves as a lecture hall and conference room where a small audience of 50 to 60 people could be accommodated. The stack room consists of shelves reaching to the floor from the bottom. In 1901, a binding section was attached to the library and a 'book-binder' and a 'book-binder's boy' were appointed. It is said that in the years to come, the book-binder's son and grandson were also employed in the observatory's binding section and the family carried on this profession until the grandson retired in 1975. The bound volumes of books and journals which are stacked on the shelves in the below image stand a testimony to the existence of a binding section attached to the library those days.



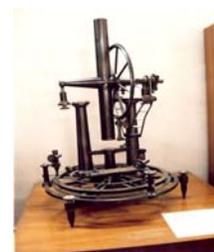
Library stack @ Kodaikanal library main hall

This library also housed the glass plates containing the recorded observations of Sun and other important celestial objects for more than 100 years. They are carefully stacked in wooden cupboards, with acid-free envelopes as protecting covers. This library extended its services not only to those astronomers within the observatory but also to those individuals employed in the Metrological Department of Government of India as the observatory was administratively governed by the Metrological department of government of India.

### **Inheritance of Antiquities:**

The old astronomical instruments used for astronomical observations and technical work acquired and indigenously built by the observatory from 18<sup>th</sup> century are important collection stored in the library and archives space at Kodaikanal and Bangalore. The archives at IIA, Bangalore posses some of those

instruments which are of antique in nature. Many important discoveries and findings are recorded using these instruments, both from Madras and Kodaikanal observatories. The library is a host to this inherited collection along with the observational records in the form of catalogs and calibrated charts. There are continuous volumes of hand-written observational data sheets bound together for more than 30 years are available in the library, which are unpublished. Some old antique Maps are part of the collection, which are published under the supervision of the Society for the diffusion of Useful Knowledge (SDUK).



Old instruments available in the archives and library @ Bangalore & Kodaikanal

The Library catalogue prepared in the year 1893, and the subsequent one list, more than 300 rare books published in the 18<sup>th</sup> century, and some of them are already out of print. This catalogue also lists 60 manuscripts written by hand which are in good condition. Until recently, most of these volumes and manuscripts were maintained in the Kodaikanal library, as the climate at the hill station was conducive to the old items in natural environment. Very limited intervention was required to conserve these books and manuscripts, like minimum repair and re-binding which was essential, so that those volumes could be re-used. In the library stack space at Kodaikanal, care was taken to arrange them conveniently from top to bottom as per the required use ranging from minimum to maximum. The binding section attached to the library was well maintained and the best material required for binding like superior leather, high grade boards and standard glue and paste, stitching material etc. were obtained from far off places as the availability of these items were rare in hill station. With minimum resources this library was very well maintained and the contents are kept in good condition even now.

A hand-written register containing loose sheets temporarily bound together was prepared to index the observatory publications received from observatories all over the world on exchange. This index clearly mentions the title of the publication and the name of the originating observatory and the country. Unique numbers are assigned as identification numbers to those titles which contain the shelf number, the rack number and the location of the shelf. The publications are arranged on the shelf corresponding to those numbers, as standard library classification and call numbers were not given those days. Till the appointment of a qualified librarian in 1974, the library was managed by various staff members of the observatory. The annual report for the year 1907 says that Mrs. Evershed (wife of John Evershed who was then the assistant director of the observatory) took a keen interest in the library and was responsible for completing a card catalogue of the books. Arrangement of the volumes on the shelves and indexing remained same in Kodaikanal library for a longtime and ultimately facilitated in optimizing the space.

### **Moving from card catalogue to On-line catalogue:**

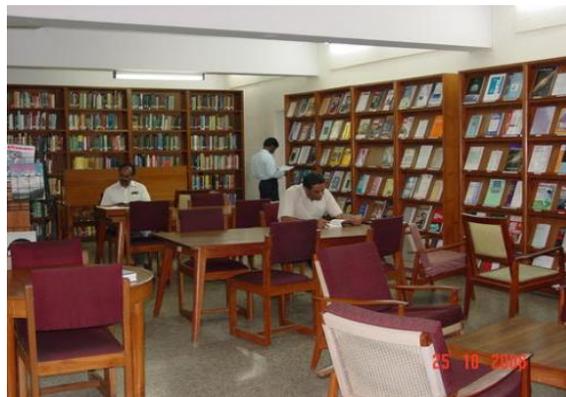
The Kodaikanal Observatory became autonomous in the year 1971, under the directorship of Prof. M.K.Vainu Bappu and was renamed as Indian Institute of Astrophysics. On the appointment of a qualified librarian, the library got facelift in many ways. Most of the books were classified according to UDC scheme, and a standard cataloging procedure was introduced for retrieval purpose. Card catalogue was extensively used for books and indexing of journals and observatory publications was initiated. The working space for the librarian and the assistant was created within the library without altering the existing

space. Kodaikanal observatory started publishing their research work as Bulletins to be called as Kodaikanal Observatory Bulletin (KOB). These bulletins were also stored in the library, which were sent to many observatories around the world on exchange.

When the decision was taken to shift the institute to Bangalore in the year 1975, the library was the first to be transferred with books and journals packed neatly with organized labeling as finding aids, for re-shelving in the Bangalore library in many installments. The collection which was sent in the year 1976, initially was stacked in a large room in the administrative building as the main library was getting ready. In the year 1978, the library was established in the present location at Bangalore. Provision was made to accommodate the library collection consisting of books and bound volumes of important journals along with observatory publications in bound volumes and loose issues in the main library hall which was shared between the reading space and other cubicles for working space. There are rooms built adjacent to the library to accommodate the binding unit and the reprographic section. The book shelves were designed and made indigenously at IIA workshop thus not compromising on the quality of wood and other materials. The main library hall has provision of many exit doors opening to the corridor, for better cross ventilation and to minimize the disturbance while traversing the entire library hall. A small office space was accommodated in the south end of the library hall which served as the office for librarian. Two more qualified library staff were appointed in the library to assist the chief librarian in 1979.



IIA main library hall reading space



Journal display at IIA library

In the last three decades IIA library and its collection remained in the same library space. Though there were additional shelves added over the years to accommodate the yearly asset acquired there is no significant addition of space to the library. In fact, the additional rooms built adjacent to the main library hall were re-purposed for other activities like students office room and some are allotted for senior professors for their office space. While the main library at Bangalore was getting fully occupied and utilized, the need for smaller branch libraries was felt in the observatory site and other field stations. These branch libraries possess some of the important astronomy books, catalogs and star charts along with important journals which are the additional copies subscribed for those observatory libraries. The library buildings at different locations are designed very simple and serve the purpose for storing the collection meant for observatories mainly. All these branch libraries are controlled remotely from Bangalore main library. Around 1980s it was decided to automate the library, its contents and activities. Initially library data base( app. 7600 books) was created using CDS/ISIS which was a free integrated

library software distributed by UNESCO. Later, when LIBSYS was acquired for the library, the already existing database was exported into LIBSYS by retrospective conversion. Efforts were made to have a complete catalog of all the books available in the library and the Libsys software facilitated this to build up an on-line library catalog in place in the year 1991. IIA library acquired different versions of Libsys software over the years and the present client version running in Linux is used extensively. The journal holding database was created and integrated into Libsys as another database for search & retrieval. In the same way, the research output of the faculty & students, in the form of papers published in refereed journals were accumulated to make another data base and integrated into Libsys.

As the library required more manpower to manage all the services extended in Bangalore and other locations, a decision was made to induct trainees who were the post-graduate students of library science from various universities within India. These trainees are trained in all the sections of the library for a period of two years to have practical knowledge of running a special library. They also contributed towards the library work, which are of routine in nature.

### Connecting with the past:

While shifting the collection from Kodaikanal library to Bangalore library, it was a conscious decision made to retain the old volumes which are of historical and archival by period, contents and condition in Kodaikanal itself for the reasons mentioned below;

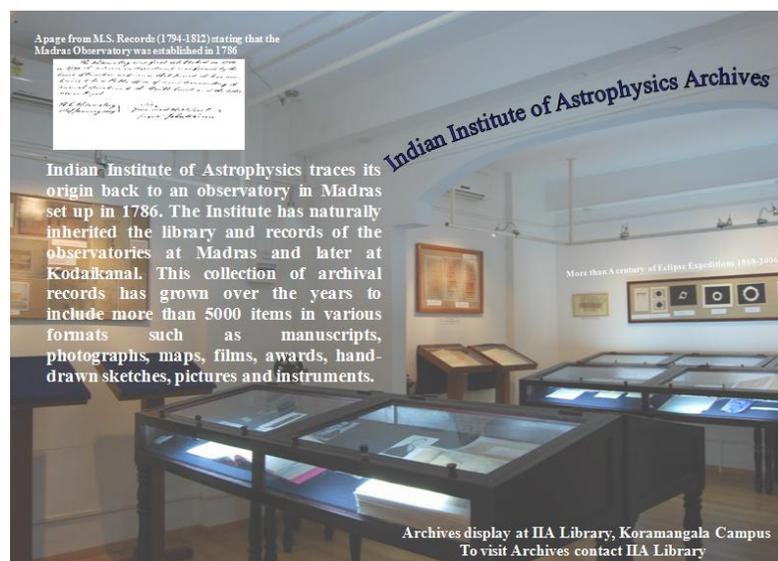
1. those publications which are of historical in contents and period, especially those published in 18<sup>th</sup> cent.
2. publications like journals dating back to 18<sup>th</sup> and 19<sup>th</sup> cent. Starting from vol. 1
3. fragile volumes which needed special care
4. continuous runs of many observatory publications, in-frequently used

In the last 5 years concerted efforts are made to review the main collection at Bangalore library and Kodaikanal library and it was decided to segregate the historical collection from the main collection, which gave birth to setting up an archive at Bangalore. This archive contain special collection of IIA, in different formats, such as manuscripts, photographs, maps, films, awards, framed materials, hand-drawn sketches, pictures and instruments. Most of these items are of historical importance and environmentally sensitive.



The various archival items and contents illustrate essentially the role played by the individual astronomers and the directors of our parent observatories and the institute and the description of the

science done at different times. Those items and collections retained at Kodaikanal were re-visited to



select the required contents for the archive. IIA library has taken the responsibility of arranging these items systematically contents wise taking appropriate care to meet the storage specifications. The preservation process involves cleaning, fumigation, repair and rebinding. Some of the old handwritten manuscripts and scientific data sheets required photo-laming and an encapsulation process to retain the originality and at the same time to give reinforcement, thus adopting the principle of reversible process.

A reference library of the archival material has been created in digital form, accessible from the IIA Open Access repository (<http://prints.iiap.res.in>).

This OA repository is one of its kind to accommodate the historical contents, which are used by the astronomers for current research, thus connecting with the past. This repository has drawn the attention of many researchers and historians in the country and out side the country to explore the rare historical contents which are uploaded regularly. It is considered as an invaluable resource which has enhanced the heritage nature of the observatory and its contents.

An important task accomplished in creating a science archive which takes care of the conservation of those historical and fragile items and at the same time induces the astronomers and historians to use these contents for active and current research. The archive display facilitates in the organization of photographic displays and exhibitions during theme related and commemorative special events.

The library space continue to remain the same except with an addition of a compact storage within the main library hall, which accommodates the less used volumes of books and journals. The historical archive is set up in the room opposite to the library which was earlier designated for storing observatory publications and atlases. As more and more journals are becoming online, IIA library adopted the policy to subscribe to e-journals where required. This has eased out the space crunch to a large extent. Also the space designated for reading purpose is shared by the students for discussion, as the physical browsing of library material has considerably reduced.

'Library is a growing organism', the fifth law of library science has taken a different connotation to indicate that 'Knowledge is a growing organism'.

**All the photographs and images used in this presentation are from IIA archives and many annual reports of the institute have been extensively consulted for this paper.**