

NEWS

NATIONAL WORKSHOP ON PRESERVING OUR SCIENTIFIC HERITAGE, HELD AT INDIAN INSTITUTE OF ASTROPHYSICS, BANGALORE, JANUARY 21-22, 2008 — A REPORT*

Introduction

Many scientific institutions in India have had a long history; some tracing back their origins to the colonial period. These institutions have a vast collection of valuable materials stored in various formats. However, there has been in Modern India no tradition of archiving old documents and preserving them for posterity. Fragments of history are lost everyday as pioneers retire and institutions fail to take care of their documents. There is an urgent need to create awareness among science institutions to collect, preserve, and catalogue their archival material and create modes of access for researchers. A *National Workshop on Preserving our Scientific Heritage* was held on 21 and 22 January 2008 at the Indian Institute of Astrophysics (IIA) to address these objectives. The workshop was jointly organized by three institutes: the Indian Institute of Astrophysics, the Indian Institute of Science (IISc) and the Tata Institute of Fundamental Research (TIFR).

The workshop was unique as it brought together 100 participants from across disciplines comprising historians, librarians, scientists, and policy makers. Prof. Siraj Hasan, the Director of the Indian Institute of Astrophysics and the Chairman of the Scientific Organizing Committee of the Workshop, welcomed all the participants and speakers on the opening day of the Workshop. He also read out the inaugural address sent by Prof. K. Kasturirangan, Former Director of ISRO. This was followed by special remarks by Prof. M. Vijayan, President of INSA, who emphasized the need to preserve material even that which did not seem to be of immediate value. Illustrating his point with an example, Prof. Vijayan demonstrated how processes and theories of scientific research sometimes received late recognition. The keynote address was given by Dr. Ross Bassett,

* Prepared by A. Vagiswari & Christina Birdie (IIA, Bangalore) and Indira Chowdhury (TIFR, Mumbai). Prof. S.M.R. Ansari (Aligarh) is acknowledged for his useful suggestions in preparation of the report.

a historian of technology and currently Associate Professor of History at North Carolina State University in Raleigh. Dr. Bassett stressed the need for an archive of science in India, which would reflect indigenous perspectives. In his role as a consultant to the archives of IITs in India, Dr. Bassett said that several issues in archiving were linked directly to the absence of awareness among the policy makers. He said that without archives when the first generation of scientists in India is no more, important parts of India's history would be lost.

The workshop was divided into 5 Technical sessions: I. Collection, Policies and Organization (Day 1, Session 1); II. Setting up of Archives: Case studies of Different Archives (Day 1, Session 2). III. Preservation and Conservation (Day 2, Session 1), Preservation and Conservation continued (Day 2, Session 2), IV. User's Perspective and Panel Discussion (Day 2, Session 3). There was a special lecture on the first day by Prof. P. Balaram, Director Indian Institute of Science. In total there were 24 lectures, one panel discussion with four presentations and finally there was consolidation of reports and recommendations.

The following papers were presented during the first session (Day 1, Session 1). S.M.R. Ansari (Aligarh) was in Chair:

A. Ratnakar (Informatics, Delhi) — His presentation was on the Collection & Development for Archives. He emphasized on the importance of policy statements for collection, building and mapping institutional and organizational developments while setting up of an archive.

G. Sundar (Roja Muthiah Research Lib. Chennai)— He gave a detailed account of Collection Development in Roja Muthaiah Research Library how they went about setting up this unique archives based on one man's collection.

Usha Suresh (Karnataka State Archives, Bangalore) — Dealt with Contents of the State Archives which incorporated reports, biographies, correspondence, newspapers, journals, audiotapes, speeches, photographs and oral histories.

H. R. Mohan (spokesman of newspaper 'Hindu') — gave details of Preservation, digitization and mode of access to information available at the Archives of the Chennai-based newspaper.

Vrunda Pathare (Godrej Archives, Mumbai) — Explained how he faced Challenges for setting up a business archives, and how the challenges addressed in documenting corporate memory.

a historian of technology and currently Associate Professor of History at North Carolina State University in Raleigh. Dr. Bassett stressed the need for an archive of science in India, which would reflect indigenous perspectives. In his role as a consultant to the archives of IITs in India, Dr. Bassett said that several issues in archiving were linked directly to the absence of awareness among the policy makers. He said that without archives when the first generation of scientists in India is no more, important parts of India's history would be lost.

The workshop was divided into 5 Technical sessions: I. Collection, Policies and Organization (Day 1, Session 1); II. Setting up of Archives: Case studies of Different Archives (Day 1, Session 2). III. Preservation and Conservation (Day 2, Session 1), Preservation and Conservation continued (Day 2, Session 2), IV. User's Perspective and Panel Discussion (Day 2, Session 3). There was a special lecture on the first day by Prof. P. Balaram, Director Indian Institute of Science. In total there were 24 lectures, one panel discussion with four presentations and finally there was consolidation of reports and recommendations.

The following papers were presented during the first session (Day 1, Session 1). S.M.R. Ansari (Aligarh) was in Chair:

A. Ratnakar (Informatics, Delhi) — His presentation was on the Collection & Development for Archives. He emphasized on the importance of policy statements for collection, building and mapping institutional and organizational developments while setting up of an archive.

G. Sundar (Roja Muthiah Research Lib. Chennai)— He gave a detailed account of Collection Development in Roja Muthaiah Research Library how they went about setting up this unique archives based on one man's collection.

Usha Suresh (Karnataka State Archives, Bangalore) — Dealt with Contents of the State Archives which incorporated reports, biographies, correspondence, newspapers, journals, audiotapes, speeches, photographs and oral histories.

H. R. Mohan (spokesman of newspaper 'Hindu') — gave details of Preservation, digitization and mode of access to information available at the Archives of the Chennai-based newspaper.

Vrunda Pathare (Godrej Archives, Mumbai) — Explained how he faced Challenges for setting up a business archives, and how the challenges addressed in documenting corporate memory.

Following papers were presented in the session: Case Studies of Science Archives (Day 1, Session 2). R. Gadagkar (IISc, Bangalore) was in Chair:

S. Venkadesan (IISc, Bangalore) — Spoke on the Archives of Indian Institute of Science, Bangalore. The strong motivation for taking up this activity was the advent of the centenary year of IISc in 2008-2009. The presentation gave an interesting history of the inception of IISc and demonstrated the efforts put in by the members of the Archival Committee to collect relevant and related materials to their archives both in-house and outside.

Atri Mukhopadhyaya (SINP, Calcutta) — The Saha Archives of Saha Institute of Nuclear Physics (SINP) archives has a vast collection of papers and documents of Prof. Meghnad Saha. The collection has an interesting trajectory, as many of these documents were first donated to the Nehru Memorial Museum by M. N. Saha's son, and copies were procured for the Institute's own collection.

P. Sharma (PRL, Ahmedabad) — "Sixty Years of Physical Research Laboratory (PRL), focused on the oral history recordings of the scientists who had worked at the Institution. The PRL plans to integrate these recordings with the archival material of the organization.

Indira Chowdhury (TIFR, Bombay) — Gave details of the Tata Institute of Fundamental Research (TIFR) Archives which focused on ways in which archival resource creation might lead to a critical institutional history. Apart from collecting scientific papers, correspondence, photographs and sound recording, the TIFR Archive has also initiated an oral history programme that records the life histories of scientists, mathematicians and administrators who worked at the Institute. In addition to three exhibitions, the TIFR Archives regularly displays archival material for the TIFR community.

A. Vagiswari (Former Librarian, IIA) — Spoke on the Archives of Indian Institute of Astrophysics (IIA) and traces its origin to the Madras Observatory founded in 1786, which has a vast collection of material dating from the 18th century onward. The Library of the Institute has played an important role in organizing these archival materials and also in facilitating the online access for the users. Some of the rare items, which are displayed in the archives, include the original handwritten manuscripts, observational data dating back to 18th century, and a first edition of Kepler's *Astronomia Nova* of 1609. The Archives of the IIA has been providing scientific information from the archival resources to the historical projects initiated by the scholars of Indian Institute of Astrophysics.

Fr. G. Joseph Antonysamy and Fr. Edward Jegannathan (Jesuit Archives, Shenbaganur, Kodaikanal) — Narrated the Experimentation and Experiences at Jesuit Madurai Province Archives. The *Jesuit* Archives located at Shenbaganur (Kodaikanal) has a very long history. This Archive has a large collection of palm leaf manuscripts in different languages, letters of missionaries, parish diaries, photographs and other material of historical value. The climate at Kodaikanal has been conducive to the preservation of archival material. However, with the advent of global warming there are many uncertainties, which the Jesuit Archives has to cope up with technically.

Sanjay Jain & Pratima Murthy (NIMHANS, Bangalore) — Considered the Archives of the National Institute of Mental Health and Neurosciences (NIMHANS) which was set up at Bangalore and its documents are being assessed and analyzed. This presentation illustrated the story of the Institute's progress with the help of archival data and captured the ways in which treatment regimens of mental illness changed over the years alongside changes in the disciplines of psychiatry, psychology and neuro-surgery. Records of case studies are available at NIMHANS archives and they demonstrate the evolution of psychiatry and points the way to inter-disciplinary research in the future.

This session was held at the IISc (Bangalore).

The first day ended with a public lecture by Prof. P. Balaram (Director, Indian Institute of Science, Bangalore). His talk on "*Private Philanthropy Public Good - The Early History of IISc*", focused on a hitherto unknown segment of the history of the IISc. He traced the events that led to the birth of IISc, starting from the 1890's when Shri. J. N. Tata mooted the idea of an Institute of Higher Education for India, based on his discussions with Swami Vivekananda aboard a ship. Shri J. N. Tata set aside a huge sum of money for this scheme. Although the British did their bit to delay the scheme, it was Shri. J. N. Tata's trusted lieutenant Shri. Burjoji Padshah who diligently pursued the scheme, regularly writing to Lord Curzon till the Institute was founded in 1909. The Institute is located on a site in Bangalore that came as a gracious grant from the Maharaja of Mysore, His Highness Shri Krishnaraja Wodiyar IV. Prof. Balaram then traced the early years of the Institute, from its first Director, Prof. Morris Travers and the early departments of General Chemistry and Electrical Technology to the vibrant Institute that exists today like a jewel in the crown of the country.

In the session Preservation & Conservation-1 (Day 2, Session 1), S. Subbaraman (Mysore) was in Chair. There were 5 lectures:

Madhu Rani (INTACH) — Stressed on the Environment for a Suitable Archive. This included building design and control of temperature, relative humidity and light. The speaker emphasized that special care should be taken to prevent destruction due to physical and biological factors and improper handling. Therefore, staff should be sensitized about the fragility of the archival documents while maintaining an archival collection.

V. Jeyaraj (Madras Museum and Archives, Chennai) — Spoke on the Disaster Management policy for Archives and stressed on the topography and climate of the area in which the archives is situated. He said a Disaster Response Team should be set up in each archive, which can react immediately when disaster strikes. Staff should be trained regularly in control of fire and other natural calamities.

P. Perumal (Saraswathi Mahal Library & Archives, Tanjore) — The preservation of palm leaves and natural materials could be continued even now as their side effects are minimal.

B. V. Kharbade (Conservation Research Laboratory, Mysore) — Brought out the importance of *Neem* and *Negundo* leaves which are natural materials and have been found to be really effective in preservation. Since current international trends in archiving stress on the use of non-toxic methods, these methods of preservation could be adapted to the archives of modern science.

C. L. Prajapati (National Archives of India, New Delhi) — Discussed the topic on preventive and curative conservation of documentary heritage.

The Session 2 continued on Preservation & Conservation (Day 2, Session 2) in which four papers were presented. S. Venkadesan (IISc, Bangalore) was in Chair.

Ramesh C. Gaur (IGNCA, New Delhi) — Presented on the Digitization and Digital Preservation of Archival Material as experienced in IGNCA.

V. M. Hari and K. Ludwick (Crafts India, Bangalore) — Focussed on the importance of technology Digitization and Microfilming in preserving archival contents. According to them, there is an urgent need to understand the medium of storage and to formulate policies for use of digitized contents. Microfilming was internationally respected as a dependable method of preservation as it is known to survive for 500 years.

Mr. Guruprasad (Crafts India, Bangalore) — Pointed out that there was concern about the storage of dynamic data for which microfilming is not the solution. Instead they should be stored in magnetic tapes and converted into DVDs and later to be adopted for use in next generation digital storage technology.

Deepthi Sasidharan (Tata Central Archives, Pune) — Emphasized that photographs are important archival material and documenting them is very important not only for recording history but also in legal cases and for identifying lost or stolen objects. Photographs in different media need care while storing, and should be checked periodically by professionals for the proper maintenance.

Session 3 is devoted to User's Perspective (Day 2, Session 3). There were four presentations. A. Ratnakar (Informatics, New Delhi) was in Chair:

D.C. V. Mallik (IIA, Bangalore) said that a majority of institutions in India like colleges, universities and societies have not cared to preserve their old records, nor do they have finding aids available to locate historical material.

N. K. Rao (IIA, Bangalore) focussed on the sources at the Archives of Indian Institute of Astrophysics that could trace the development of astrophysics in India.

C. V. Visweshwara (Jawaharlal Nehru Planetarium, Bangalore) highlighted the extensive use of archives outside India, the general perspective and the feedback on the condition of archives within India and focussed on the need for professionalism & the creation of an user - friendly environment.

S.M.R. Ansari (Aligarh) drew attention to the fact that the modern observatories were not founded only on the Indian Subcontinent by the then Colonial Government but a number of Indian monarchs or Rajas commissioned also modern observatories during 19th century. He illustrated the point by elaborating about the observatories founded at Lucknow, Trivandrum, and Pune. He stressed for a Centre for comprehensive history of astronomy in the Indian subcontinent, in which apart from collection of materials from abroad, there should be arrangement for the correspondence of astronomers working in India with those working in England, Europe and USA.

The Panel Discussion was chaired by Roddam Narasimha (JNCASR, Bangalore):

Four themes were taken up for discussion. They were: 1) copyright issues, 2) how to develop archives, 3) archival standards and 4) the need for National Science Archives.

Christina Birdie (Librarian, IIA) pointed on the right issues and stressed that copyright compliance is very important in the display and use of archival material in archives. Unfortunately, the guidelines are inadequate in India. In the absence of such standard guidelines, every archive sets its own rules based on existing (general) copyright laws and experiences. It is evident that permission should be sought from the authors before holding their work in any format. However, they can hold material, which has been generated by their own institutes. Archives should respect the copyright laws of other countries while holding material of other countries. For data, which cannot be displayed on the web, the indications of its availability and metadata should be provided for the users. One important issue, which is being debated widely, is archiving 'orphan' works. It was felt that continuous efforts should be made to trace the author of the orphaned works earnestly.

On how to develop archives Indira Chowdhury (TIFR, Mumbai) said that any effort at setting up an institutional collection should avoid duplicating collections that already exist elsewhere within the same institute, for example, for published material proper documentation of the origin of the source and acknowledgment of the contents were emphasized. Need for professional training in India was identified as one of the important aspects of setting up an archive.

Deepthi Sasidharan (Pune) presented several points on standards on behalf of R.P. Narla. The discussion evoked a great deal of debate on the availability of standards. Unfortunately, there are no national standards in our country, which can guide the archives professionally. Hence, there is an urgent need for compilation of standards, which should be taken up by a Central organization.

S. Venkadesan (Bangalore) took up the need for a National Science Archives and this point was discussed extensively in the meeting. However, majority of the participants felt that it was more advantageous to create a network of science archives than a single centralized National Science Archives. It was also strongly felt that many institutions would want their archival materials physically located within their own institution. This would also ensure the availability of local expertise in collecting and organizing material. Digitised material and the metadata available with archives could be networked and made available.

A significant recommendation made by the participants was the creation of a Forum or an Association of Archivists in India that could enable the setting up of standards, modes of information exchange and the development of guidelines for the creation of science archives. Such an Association could also enable smaller institutions in their endeavour to set up archives.

Professor Narasimha recommended that the advocacy document that emerged after the panel discussion be shared with policy-making bodies such as DST, INSA, IAS, and CSIR. Dr. Kasturirangan, MP has volunteered to read out the key features of the advocacy document in the Rajya Sabha.

The Chair then thanked all the participants for their valuable contributions and declared the Workshop to be over.