

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

May 2010

Retrospective Conversion of Ancient Knowledge, Issues and Challenges: A Case Study of Central Library, Banaras Hindu University, India

Sneha Tripathi

Banaras Hindu University, sneha.tripathi@gmail.com

V. K. Mishra

Banaras Hindu University

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Library and Information Science Commons](#)

Tripathi, Sneha and Mishra, V. K., "Retrospective Conversion of Ancient Knowledge, Issues and Challenges: A Case Study of Central Library, Banaras Hindu University, India" (2010). *Library Philosophy and Practice (e-journal)*. 363.

<https://digitalcommons.unl.edu/libphilprac/363>

Retrospective Conversion of Ancient Knowledge, Issues and Challenges: A Case Study of Central Library, Banaras Hindu University, India

Sneha Tripathi

Assistant Librarian
Central Library

Banaras Hindu University

Dr. V.K. Mishra

Senior Library Information Assistant
IIT Kanpur

Introduction

Indian civilization is one of the world's oldest and most developed civilizations, i.e., the Indus civilization. India's culture is marked by a high degree of syncretism and cultural pluralism. The diversity inherent in Indian society makes it unique. Indian culture reflects the influence of geography, with a long history of foreign invasions and rule, to which India reacted patiently and created a space for the new customs, traditions, and ideas within their own established traditions.

Earlier, the literary tradition was mostly oral and was passed from generation to generation. Later, written transcription was adopted to ensure longevity and wider dissemination of information. Materials such as birch bark, palm leaves, cloth, wood, and handmade papers were used to store the precious knowledge belonging to different areas of the arts, science, social science, etc.

Everyone is directly or indirectly influenced by their society, which, in turn, is reflected in its literature. Thus, these old scriptures symbolize the social and cultural life of any era. Manuscripts mirror our past. The historical and social change is reflected in the different styles and forms of writing over the centuries. Writing as a craft and writing as a communication skill are inseparable in Indian cultural development.

India has the largest and most varied collection of manuscripts in the world. But due to lack of awareness, a vast amount of literature is already lost and the rest available is mostly in a state of decay. There was no effort to document, preserve, or even explore these rare manuscripts lying within personal possession.

The content and style of manuscripts echo the changing concerns of society. They are required to be documented, preserved, and made accessible to the present and succeeding generations to reinstate the glorious past.

National Mission for Manuscripts is an initiative of the Government of India. The project has helped organizations like Banaras Hindu University to preserve their rare and precious collection of manuscripts and make it available to users.

History of the Sayaji Rao Gaekwad Library, Banaras Hindu University (BHU)

The library was established in 1916 in Telang Hall of Central Hindu College. Initially, it had a small collection which was donated by the son of Justice K. T. Telang, Prof. K. P. Telang. The library was nurtured by the eminent historian Sir Jadunath Sarkar. The library was moved into Central Hall of BHU Faculty of Arts in 1921. In 1926, Sir Sayaji Rao Gaekwad made a generous donation of Rs. 2 lakh (200,000) to establish an independent building for the library. In 1941, the construction of the building was completed and library was established. The architecture of the library followed the archetype of British Museum Library. The present collection of manuscripts in Sayaji Rao Gaekwad Library (also known as Central Library) BHU has been built over a period of time by the generous donations from scholars and their families. These donations helped the library to enrich their collection with many invaluable manuscripts and rare documents. Earlier, these manuscripts were kept under lock and key because of the fear of irreparable damage. The access was restricted to research scholars and eminent personalities.

In 2003-04, the manuscript collection of the library was opened to the public. The driving force was the IXth five year plan (1997-2002) of the Government of India in which set a high priority on conservation and preservation of manuscripts and rare documents (9th Five Year Plan, Vol. 2.) This was aided by the efforts of the National Mission for Manuscripts. Better preservation technologies have helped gain the trust of authorities on this issue.

National Mission for Manuscripts (NMM) of India

NNM is an ambitious project launched in February 2003 by the Ministry of Culture, Government of India, under the 9th Five-year plan (1997-2002). It was an effort to save national heritage through documentation and representation in different forms and provide more visibility to ensure wider cultural inheritance (National Mission for Manuscripts, 2005).

The mission operates in different states of the country through a network of specifically identified Manuscript Resource Centres (MRCs), Manuscript Partner Centres (MPCs), and Manuscript Conservation Centres (MCCs). These centres work with the objective of collecting data on manuscripts located in different places, from universities and libraries to temples, mathas, madrasas, monasteries, and private collections. An MRC does the job of documenting its own collection and conduct surveys for collections in and around areas/districts. MPCs mainly look after the documentation of their own collections. MCCs look after conservation of manuscripts.

The Mission provides assistance for infrastructure for conservation and preservation of manuscripts. It organizes training programs and supports research for better management and wider dissemination of manuscripts.

Manuscript Collection at BHU

BHU has a vast collection of manuscripts and rare documents. The collection is scattered among different faculties and departments of the university which are detailed in Annexure 1. Annexure 2 outlines the types and features of the collection contained in the university. The collection is unique in holding the rarest among rare in its collection and is referred to by scholars worldwide. A few are listed below:

Literature on Kashmir Shaiv Darshan: More than 100 small and large works of literature are available, all rare and many unpublished.

Manuscripts written on birch bark: The large and magnificent manuscripts written on birch bark are hardly available anywhere except Kashmir.

Illustrated Volumes of Bhagwad Gita: The beautiful handwritten and illustrated manuscripts leave an unforgettable image of the scripture for any scholar. They are a beautiful combination of gold and handmade colours.

Presently, manuscripts reside in glass-doored steel almirahs. Unbound manuscripts are kept between handmade acid-free hard boards and wrapped in red cotton cloth (red is thought to be an insect repellent). The section is air-conditioned to maintain proper temperature and humidity. Within the section, a fire protection system has been installed. Manuscripts have been arranged according to language and script.

Checking and cleaning of manuscripts are done at regular intervals.

Relationship between BHU and NMM

Varanasi is one of the oldest cities in the world. It is recognized as a study centre for Indian philosophy and culture. Most of the manuscripts available at BHU have been in continuous demand by indigenous as well as foreign scholars. Most manuscripts in the collection are brittle and regular use of collection would have caused the condition of the manuscripts to deteriorate even more. The university was put in the position of deciding between the ethics of providing assistance to researchers and the responsibility of preserving its rich heritage. A more organized approach was required for the wider use of manuscripts without damage.

Eventually, the university decided to become a part of the NMM. The Mission also showed a keen interest, because they were looking for a strong base in the Eastern part of Uttar Pradesh, a state of Indian Republic, which could comply and contribute towards achieving NMM objectives.

Thus, on the 6th of February 2006, the first Memorandum of Understanding (MoU) was signed between Central Library, BHU, and National Mission for Manuscripts, Ministry of culture, Government of India, which recognized Central Library, BHU as a Manuscript Partner Centre (MPC) of NMM. As MPC, BHU was vested with the responsibility of documenting its collection of manuscripts and sharing its database to enrich the database of NMM.

Further, on 23rd November 2006, Central Library, BHU was recognized as Manuscript Conservation Centre (MCC) by NMM. Key features of the scope area defined for Central Library, BHU as MCC by NMM are:

Preservation and curative conservation of manuscripts in selected districts of eastern UP, i.e., Ghazipur, Jaunpur, Chandauli, Azamgarh, Sultanpur, and Varanasi .

Training for development of specialized manpower in handling of manuscripts. The training had emphasis on indigenous as well as on advanced technologies for the conservation and preservation of manuscripts.

A general emphasis was also given to pursuing other efforts which fall under the purview of the mission statement.

Efforts with NMM: Developing a Database of Manuscript Collections

As MPC, the Central Library, BHU initiated the effort of cataloguing of its manuscript collection under the project "Commissioning task of documenting its own institutional collection by MPC for NMM". Under the project, manuscript data documenters were selected to catalogue the manuscript collection of the BHU. An example metadata sheet is provided in Annexure 3.

A total of 4,926 manuscripts written in Devanagari, Bangla, Urdu, and Persian script were documented . One hundred nineteen in Sharda and Arabic are yet to be documented, due to the unavailability of an expert. The data capturing was done per the norms of NMM.

During the project, the library had the problem of convincing other centres of the university which had good collection of manuscripts to participate. Time and again the problem of ownership and providing access to the original manuscripts to temporarily- employed cataloguers emerged, which was later sorted out with the discussion between higher authorities.

Digitization

Under the project “Commissioning Tasks Pertaining to Preservation and Conservation of Manuscripts by MCC for NMM”, BHU initiated the task of digitizing its manuscript collection. The digitization was carried out in two phases under the Xth five-year plan of the library. Virtually all manuscripts of Central Library, BHU have been digitized.

Phase I

Nearly 500 manuscripts were digitized in the first phase. The project was carried out as a pilot project and its successful completion and implementation laid the foundation for the next phase.

Phase II

More than 7,000 manuscripts have been digitized in the second phase.

These manuscripts were digitized per the standards and norms set by NMM. The library now has two kind of digitized data for manuscripts, raw and processed (See Annexure 4). Raw data is unprocessed data stored in .tiff format. When the quality of raw data is enhanced to make it more legible, becomes processed data. The processed data is stored in .jpeg format and the files are smaller than the raw, unprocessed image. A copy of raw data is maintained for reference in case of information loss from processed data at the time of editing. Eleven million pages are now electronically accessible within the program.

Workshops and Seminars

To gather and share knowledge on safeguarding manuscripts and rare documents, a national seminar on Digital Preservation of Manuscripts and Rare materials was organized in 2005 by Central Library, BHU. The seminar was focused on tools and techniques, indigenous as well as technological, for the preservation and conservation of manuscripts.

A national workshop on manuscriptology and palaeography was organized by the Central Library, BHU in cooperation with NMM. Experts on different scripts imparted their expertise to personnel from different institutions as well as students and research scholars, to help them learn the fundamentals of different scripts and languages. Many of the languages and scripts in which manuscripts were written are dying, and this workshop was crucial in creating awareness.

In addition to this basic course, there are plans to conduct an advanced course to build a national pool of people who can effectively contribute in conservation and wider dissemination of the thought content stored in manuscripts. This is one of the major objectives of NMM.

Issues and Challenges: The Future

Identification of manuscripts and other rare materials in the region

One of the major responsibilities of the Central Library as an MCC is to explore the manuscripts available in personal and institutional collections in the Eastern region of Uttar Pradesh, India. Initially, the centre will focus on the materials in the Varanasi District. Efforts will then expand to the entire Purvanchal region of Uttar Pradesh. .

Creating public awareness

There are thousands of manuscripts in individual and institutional collections scattered all over the country. Most people lack the technical knowledge handle and preserve manuscripts. There is concern about ownership rights over these valuable documents. Many individuals in institutions have little interest in this national venture. The responsibility of BHU is to convince people to participate in Mission's objective. They have specific strategies to convince people having rare materials in their personal possession to participate in this national initiative of conserving our rich heritage. A balance of availability of content and protection for the right of ownership must be found. A digital mobile lab could be one way to provide onsite preservative and conservation treatment to the manuscripts held by individuals.

In-house training of staff

Manuscripts become brittle over time. They must be handled with care. Intensive training for handling manuscripts is needed. Staff should be required to undergo training or continuing education with experienced conservationists and archivists.

There have been efforts to involve students of museology and history to encourage documentation of the content of unpublished literature for researchers and scholars in history, philosophy, indology, religion, and other domains. Extensive training on ancient scripts such as Brahmi, Kharosthi, Grantha, Takri, Modi, Nandinagari, Sarada, and Tigalari is needed to enable scholars to decipher and read the content of manuscripts.

Central Library, BHU in cooperation with NMM organizes training programs for students and scholars. Experts conduct training on scripts and languages as well as tools and techniques for manuscriptology. Efforts are being made to bring in more such programs to encourage interest and participation.

Bibliographic database of manuscripts

A scholar coming to the library does not have a clear idea about the manuscript collections there. Time is wasted in searching for manuscripts. A bibliographic database of manuscripts and rare documents available in the region should be developed. This will help locate manuscripts as well as providing more visibility for them. One of the NMM's primary goals is creating an electronic database of manuscripts that will contain titles, themes, authors, commentaries, scripts, languages, conservation status, and much more.

Policy guidelines

The library lacks a policy on providing access to manuscripts. The existing procedure allows researchers to consult manuscripts at the MCC, but often scholars do not have time to do this. They would like to make a copy of manuscripts for further reference. There are no guidelines for this option.

Since the manuscripts are now digitized, the use of these electronic documents must also be addressed with a policy.

Issues that must be considered include:

- Identification of type of scholars
 - University scholars
 - Outside scholars
- Scholars who have contributed to the development of the manuscript database of the region
 - Cost issues
 - Cost for print
 - Cost for electronic format
- Access Policies
 - Number of pages/folios to be made available to scholars
 - Cost per folio/page
 - Provisions for online access

Storing and managing digitized data

After digitization is complete, the data must be archived. Raw and processed data is currently stored on hard drives and compact discs. The number of CD-ROMs is nearly 10,000, which is nearly 7 TB of data. Managing such a huge amount of data has become a problem for the MCC. There is a proposal to buy a high-end storage server and also a digital library solution, to provide access to digitized manuscript data on the internal network. Better storage and access for the compact discs is also being pursued.

Laboratory

There is a proposal to establish a well-equipped laboratory for the conservation and preservation of manuscripts in the region with the help of NMM. The laboratory team will consist of manuscriptologists, subject scholars, and conservationists/technicians. Treatment of manuscripts will include:

Step I:

Initially, the conservationists/technicians will study the collection of manuscripts and give appropriate chemical treatment to sterilize the collection. Damaged manuscripts will be given curative conservation. The rest will be given preventive conservation.

Step II:

Manuscriptologists will decipher the contents of each of the manuscript bundles and transcribe to a popular contemporary script.

Step III:

Subject experts will identify the thought content of the manuscript and document it according to NMM standards.

Step IV:

Depending on condition and rarity, manuscript will be digitized. Digital scans and metadata will be included in the Centre's database. The digital mobile lab can be used for distant libraries and unorganized

personal collections. Together, these will contribute to the region's " Purvanchal's Manuscripts Digital Repository. "

- Developing a database of restored and organized archival material of all owners in Varanasi, to keep track of the condition of the archival material of public and private owners in the Purvanchal region of Uttar Pradesh;
- Promoting research on standardization of methods of conservation and restoration of archival material;
- Promoting research to develop advanced techniques of conservation and restoration for manuscripts;
- Conducting workshops and training programs for professional development;

Content-based information retrieval

Research in multilingual information retrieval must be encouraged, so that content-based information retrieval for these rare documents becomes a reality. Most old manuscripts are handwritten. Computer scientists are still struggling to develop tools for deciphering complex handwritten text in different scripts (such as Newari, Grantha, Nandinagari, Telugu, etc.) of different styles belonging to different time-periods. Lakshmithathachar (1999) emphasizes continuous and increased interaction between computer scientists and manuscriptologists as the way to develop advanced information searching and retrieval tools for these complex scripts. Manuscriptologists understand the style and script of the manuscript. They can interpret the nuances of the scripts and provide critical comments on the text. This experience can be used by the computer scientists to develop automatic tools for deciphering handwritten text.

Course in manuscriptology and palaeography

There is an urgent need to create an academic specialty that can work in the fields of manuscriptology and palaeography. BHU is working on a PG diploma course in manuscriptology and palaeography within the Department of Library and Information Science. The MRC will serve as a laboratory for the students to experience practical handling of manuscripts and explore new research avenues.

Conclusion

Since the inception of human civilization, India has been a centre of learning for religion, philosophy, and science. Manuscripts contain writings from eminent scholars. These writings are available on materials such as cloth, birch bark, leaves, clay, etc. They cannot survive without proper handling and care. Central Library, BHU has a large collection of manuscripts that are in regular demand by scholars in different disciplines. This leads to regular consultation of these rare classics which cause their condition to further deteriorate. Efforts are being made to preserve the collection. Simultaneously, conservation of documents is also being done to keep the body and content of the scripture intact. The collaboration of NMM and BHU has advanced efforts in the eastern UP of India in protecting old manuscripts. The collaboration also promises a more intense coordination between the scientific community and manuscriptologists, to bring forth better technological tools and techniques to decipher, search, and retrieve the knowledge stored in these rare scriptures. Last but not least, these efforts help inculcate a sense of responsibility in society toward our rich past.

References

Lakshmithathachar, M.A. (1999). Manuscriptology in the modern context: Document analysis and recognition. ICDAR '99, Proceedings of the Fifth International Conference on 20-22 Sept. 1999: 812 – 815. Available: <http://ieeexplore.ieee.org/iel5/6420/17144/00791912.pdf.ieee>

National Mission for Manuscripts (2005). Available: <http://namami.gov.in/>

Planning Commission, Government of India (1997-2002). 9th Five Year Plan (Vol. 2). Available: <http://planningcommission.nic.in/plans/planrel/fiveyr/9th/vol2/welcome.html>

Annexure 1: Manuscript collections

Departments	No. of Manuscripts
Central Library	6832
Bhart Kala Bhawan	5020
Faculty of Sanskrit Vidya Dharma Vigyan	218
Ranvir Pathshala	75
Faculty of Ayurveda	16
Total Collection	12161

Annexure 2: Types and features of the collection contained in faculties and libraries of the university

Subject	Vedic Literature, Puranic Literature, Religion, Philosophy, Mysticism, Hindu Astrology, Tantra, Ayurveda, Sangita Shastra, Pak Shastra, Kam Shstra, Geography, Literature, Rajaniti Shastra
Scripts	Sarada, Grantha(Tamil), Bengali, Devanagari, Telugu, Urdu, Persian, Arabic
Languages	Sanskrit, Urdu, Persian, Arabic, Marathi, Bengali, Tamil, Telugu
Material	Birch Bark (14), Palm Leaves (19), Paper (all remaining)
Catalogues of Manuscripts Compiled	Descriptive Catalogue of Sanskrit Manuscripts in BHU, Compiled by Dr. Rama ShankarTripathi, 1971, B.H.U. (Published) A descriptive Catalogue of Manuscripts on Ayurveda in B.H.U. Compiled by Dr. Rama Shankar Tripathi,1984,B.H.U. (Published) Catalogue of Persian Manuscripts in B.H.U, Compiled by Dr. Amrit Lal Ishrat, B.H.U. (Published) Catalogue of Urdu Manuscripts of Central Library, B.H.U. (Unpublished)

Annexure 3: An example data sheet to capture metadata from Manuscripts

Banaras Hindu University Library Data-Sheet for Manuscript	
Acc. No	
Manuscript No.	
Title	
Author / Creator	
Class No.	
Language	
Script	
Material	
Material Size (In c.m.)	
Script Size (In c.m.)	
No. of Folio	
No. of Image / Page	
Condition	
Status	
Color of Mss	
Commentary	
Commentator	
Date	
Source	
Illustration	
Subjects	
Format	
Remark	
CD No.	
Location	Central Library, Banaras Hindu University.

Figure 1

Annexure 4: An example taken from digitized version of the manuscript titled “Rajani Stava” to display the difference between the “raw” (Fig.2) and “processed” data (Fig.3).



Properties: File Size: 483 KB

Figure 2: Raw Data (Courtesy: Central Library, BHU)



Properties: File Size: 130 KB

Figure 3: Processed data (Courtesy: Central Library, BHU)