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An Investigation of Conservation & Preservation Practices of Intellectual Heritage in Pakistan¹

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Abstract:

This study is aimed to investigate the conservation, restoration and preservation state of manuscripts in Pakistan. The study was conducted on 13 selective institutions of Pakistan, holding MS collections. Through interviews and documentary research the conservation and preservation situations were inquired.

Keywords: Manuscripts, Conservation, Restoration, Preservation, Pakistan

Introduction

Manuscripts are regarded as intellectual and cultural heritage of any nation. They are evident to zest of our forefathers and intellectual ascendants (Qutab, 2012). Due to their importance and exclusivity many libraries, institutions, archives, museums and rich people collect manuscripts. Jimerson (2002) defined manuscripts as ‘unpublished and original sources of continuing unique

¹ This study is part of Library & Information Sciences’ M. Phil dissertation at the Islamia University of Bahawalpur, Pakistan conducted by principle author. Later on it was elaborated on Pakistan level to draw comprehensive findings. The name of interview-respondents were kept secret for research confidentiality agreement.

value and characteristics'. Mazumdar (2009) stated that manuscripts are the primary sources of historical information. Due to the first handwritten documents, they reflect our glorious past and tell the story of our forefathers and source of information for the researchers. Until the advent of the printing press, in the mid-fifteenth century, each manuscript was unique. Even a manuscript copied by the same person varied from its other copies or the originals in terms of spelling mistakes, word displacement, ink spots, minor handwriting changes, writing materials and stuff etc. Thus, every manuscript from the middle ages constitutes as special collection item (Slowik, 2009). Building manuscript collection is a tedious challenging and multidimensional task (Qutab & Bhatti, 2014). Once there is MS in a collection the next important steps are to conserve and preserve (C&P) it for future generations. Fragile physical condition and age of the manuscripts demand unique arrangements for every individual manuscript (Qutab, 2012). Rahmani (1998) explained manuscripts as an old man with lesser resistance against the environment i.e. heat; cold; dust and moisture. Any change in the weather can cause bad effects on its' health. Conservation and preservation of any manuscripts is a very difficult task that needs high skills, devotion, sacrifice, and concerns. Due to rareness of contents and physical condition, many different restoration procedures are involved. The consequences of the loss of such materials are unimaginable and it is an obligation that the librarians and other information professionals in charge of these repositories take necessary steps/precautions to ensure that the materials are in stable and usable conditions (Bankole, 2010; Sahoo, 2004). Information technology has altered the methods of information preservation, dissemination and controlling. Now it is possible to digitize ancient intellectual contents with their original look and feel (Li& Niu, 2010; Ullah, Malik & Qutab, 2012). However, conservation of the physical artifacts is undoubtedly valuable for the future. Preserving manuscript is the national duty as they are the source of knowledge, developed over millennia through efforts and experiences of generations. National Mission for Manuscripts of India stated that losing a manuscript is losing an entire piece of memory of human progress (2003).

Manuscripts in Pakistan

Pakistan before its birth in 1947 was the land occupied by many rulers of Russian States, Middle East, Europe, Hindustan and insiders over different periods of time. All invaders left their marks on intellectual & architectural history of this part of the world. This is the reason that manuscripts in Pakistan are in Arabic, Persian, Turkish, Sanskrit, Gurmukhi and other local languages. Many institutional and personal libraries hold a good collections of manuscripts. After 67 years of independence, among many other neglected areas, Manuscripts (MSs) are the most neglected one in Pakistan. In 1993, a survey was published by the Al-Furqan Islamic Heritage Foundation, London, titled World Survey of Islamic Manuscripts. That survey reported that there were 80,168 Islamic manuscripts in 283 personal and institutional libraries of Pakistan. As another assessment, there are 150,000 to 200,000 manuscripts in Pakistan (Qutab, 2012). Pakistani government role for the manuscript collection, preservation and conservation has not been satisfactory. Due to lack of proper legislation and its poor execution, number of valuable MS have been sold by their owners to foreign collectors or smuggled by traders. There are two laws in Pakistan to preserve and control the manuscripts (Khan, 1998):

1. Historical documentary things (conservation and control) act 1975.
2. To acquire the government records and historical and national old documents and their preservation Act 1993.

Scientific studies on managerial, conservation and preservation issues of MSs are limited in Pakistani context. Akram (1998) laments the state of manuscripts in Pakistan as bad and neglected. Unaware and untrained staff; restrictions on access; minimal financial support; lack of technological resources; un-cooperative behavior of staff; poor organization and management of these collections are other major problems. Qutab (2012) wrote about the state of manuscripts in Pakistan and provide valuable fact and figures. Qutab & Bhatti (2014) studied managerial and technical handling issues of manuscript collections in the Punjab and explored the procedures of acquisition, cataloging, classification, services, conservation, preservation, and digitization. It was found that the management of manuscript is a difficult task and collection holder institution's management faced problems due to unavailability of skill staff, lack of funds and lack of advance technology.

Conservation

Conservation, according to IFLA, “a term which denotes those specific policies and practices involved in protecting library and archive materials from deterioration, damage and decay; it includes the methods and techniques devised and undertaken by technical staff. Common conservation techniques include de-acidification, encapsulation or lamination, preservation microfilming, and digitization and electronic storage” (Prytherch, 2005. p-165). Technology in this field appears to more helping, but the practices demand financial support and wise planning. Li and Niu explained three principles in ancient books restoration followed by Chinese libraries: “Originality: preserve the original look and feel of ancient books; least intervention: make the restoration procedure as simple as possible and reversibility: when new restoration technique appears, ancient books can be reversed to its original status and then be restored using the new technique” (2010, p-272). Deterioration of the library materials especially those are old i.e. MSs and archives is challenging. Different external and internal factors cause continuous decline to ancient objects. Major reasons behind the deterioration of the MSs can categorize as environmental, biological, chemical, human factors and natural disasters. Conservation activities can be divided according to its three major aspects: preventive conservation, curative conservation and restoration. Preventive Conservation is the process by which one takes care of the collections to avoid any further deterioration. This level of conservation can be achieved with simple equipment like cotton, soft brush, similar stationary supplies and other material. Curative conservation means conservation treatment to stop active deterioration. This level of conservation required high level of expertise and materials. Restoration is done to improve the visual aspects of any damaged manuscript (Agrawal, 2006; National Mission for Manuscripts, 2003).

Traditional and Modern Conservation Methods: Traditional methods of MSs' conservation are still practiced in developing countries. Mainly these include avoiding the basic factors of deterioration specifically light, dust, heat, and humidity. MS protection was made possible by indigenous methods i.e. safety from insect and humans' mishandling, sunlight to avoid humidity, turning the pages for air and checking, wrapping the MS into different color cloth especially in silk, using different herbs, using smoke as natural fumigation, rubbing oils on leaf manuscripts etc. (National Mission for Manuscripts India, 2003; Sahoo and Mohanty, 2004). Modern methods include the use of technologies e.g. use of chemicals, artistic skills and other computer technologies for curation and restoration. Cunha, Poole and Walton (1977) categorized records

into three level according to their state of conservation: “first, those that still have some useful life remaining; second, those that have no useful life remaining, so that all that can be done is to save their contents; and third, those that have such unusual intrinsic value that expensive, special repair and restoration is justified”. They also recommended a list of supporting conservation activities (p 322-323):

- a) The training of conservators and technicians;
- b) Expanding the awareness of the seriousness and immediacy of the problem of paper deterioration;
- c) Developing examination and treatment facilities;
- d) Developing comprehensive research program;
- e) Establishing standards of training and
- f) Survey of conservation needs
- g) Collaboration and sharing in research

It is a fact that despite all precautions and preventive conservation efforts made for the care of MSs, the deterioration and weakness continue by passage of time. It can only be slowed down with the help of proper conservation treatments along with preserving the contents for the future (Ullah, Malik & Qutab, 2012).

Preservation

Preservation as stated by IFLA “all the managerial and financial considerations including storage and accommodation provisions, staffing levels, policies, techniques and methods involved in preserving library and archive materials and the information contained in them is preservation” (Prytherch, 2005, p-556). Preservation of MSs in their original form to save it from further decay is important. Conservation and preservation is such an important aspect that needed to be considered while acquiring new manuscripts to the collections. Walters (1998) said that contemporary preservation management recognizes that preservation is an integral part of all functions involved in the identification, acquisition, preservation, access, and promotion of valuable research materials.

Preservation Techniques: Manuscript was conserved and cared since old times but there were no methods to preserve them or at least safe their contents for forever. It’s only becomes possible with invent of technology. Facsimiles, microfilming and now digitization is in practice for this purpose.

- A. ***Microfilming*** to preserve the manuscript contents in original forms was started in 1930’s by libraries and archives in USA. It serves as a very effective way of preservation (Gertz, 1999). There are three types and levels of microfilming process, first is master copy known as camera negative that is to preserve with special care and from which second level print negative is produced, third is positive that is created by print negative. Although the microfilms are easy to distribute among repositories but it required special machines to read, that are expensive and are mostly removed from libraries. Gradual technological shifts has reduced its effectiveness.

B. Digitization is increasingly used as a technique to allow access to content without risking the original materials. Digitization not only help the preservation of manuscripts but also solve the issues related to its cataloguing, access, distribution and research. Manuscripts are being digitized worldwide to provide user friendly interfaces, open and easy access and detailed search. There are many preservation standards for manuscripts and archives. Some of the famous standards that may be followed by the libraries are i.e. International Organization for Standardization (ISO); American National Standards Institute (ANSI); the *Rare Books and Manuscript Section* (RBMS) of American Library Association; The Society of American Archivists (SAA); The Library of Congress (LC) etc. (Walch, 1990). Digitization of manuscript collection is consisting of a multi-step procedure. The process starts with questions: Why? How? What? Where? Whom? First question is of need of digitizing; second is about the process, standards and allied technologies; third is about selection to digitize; fourth is about the facility where the digitization will be done and last is about human resource and their skill set. Many experts stated that digitization should not be undertaken just because other institutions are doing this. Therefore they suggest the digitization need assessment (Bansode, 2008). Eden, et al (1998) and Levi (2010) suggested following valuation factors needed to be considered prior to planning digitation:

- Organizational context;
- Selection of collections to be digitized;
- Selection of standards and procedures;
- Metadata and retrieval;
- Access, copyright restrictions and access policy;
- Users, usage and interface;
- Bibliographic control;
- Environmental factors;
- Staff training needs;
- Security and control;
- Disaster management and backups;
- Digital preservation;
- Expected outcomes.

Conservation and preservation is extremely important to save the manuscripts in their original form and their contents for dissemination.

Research Objectives

This study was aimed to explore the following:

1. To review the current situation of the precious manuscripts in libraries of Pakistan;
2. To learn the state of physical conditions of MS in Pakistan;
3. To observe the conservation and preservation situation and procedures;
4. To access the human resource skills for conservation and preservation;
5. To analyze the digitization activities of manuscripts and their related issues;

Design of Study

Qualitative research methods: documentary research and interview techniques were used to investigate the MSs' C&P conditions in Pakistan. Selected representatives of institutions were interviewed with semi-structured in-depth schedules. The institutional documents were consulted to review the facilities for institutional collections located in Lahore, Karachi, Islamabad Peshawar, Quetta, and Bahawalpur (see Table 1). Researcher also visited the manuscripts facilities and C&P labs to observe the MS condition in Lahore, Islamabad, Karachi and Bahawalpur.

National Archives	Museum Libraries	University Libraries	Public Libraries
National Archive, Islamabad	Lahore Museums, Lahore	University of Punjab, Lahore	Punjab Public Library, Lahore
Punjab Archives, Lahore	Islamabad Museum, Islamabad	Government College University, Lahore	Dayal Singh Trust Library, Lahore
Sindh Archives, Karachi	National Museum, Karachi	-	-
Directorate of Archives & Libraries, KPK, Peshawar	Bhawalpur Museum, Bhawalpur	-	-
Directorate of Archives, Balochistan, Quetta	-	-	-

Table 1. MS Collections

Findings

Manuscript collections in Pakistan are mostly on paper produced in Indo-Pak subcontinent or on palm leaves. There are few manuscripts on parchment. Leather and cloth bindings are very common. The oldest MS is from 5th century A.D. Many of these MS have illustrations, color and gold water decorations and indigenous inks. All these particulars required different type of care. The overall conservation and preservation situation of manuscripts is not satisfactory in Pakistan. In most of the cases, there was a lack of relevant facilities, staff and equipment to perform a task related to conservation and preservation.

Conservation

I. **Conservation Labs:** It was found that museums have most equipped and latest conservation labs in Pakistan than any other institution. Some archives do have the proper labs, facilities, and skilled staff. However, Punjab archive, Lahore was lacking this facility and the collection was in dire need of intensive care. The university and public libraries' don't have any conservation labs or qualified staff. Most of all they have fumigation chambers, relying on indigenous methods applied by office support staff. Interviewees stated reasons that there is lack of funding to build proper conservation labs, lack of administration interest and support, lack of skilled personnel, expensive conservation materials and sometimes unawareness to right conservation methods is also a problem.

II. **Conservation Techniques:** Research findings revealed that institutions under this study have different types of conservation arrangement for MS. Practically it was found that traditional

methods i.e. waark-gardani (turning pages for air circulation), neem leaves, silica gel, fumigation and others were most common restoration techniques. Modern technologies are not used for most endangered MS's curation and restoration.

III. *Building and Space:* Space problem for MS collection was shared by many institutions while eight institutions stated that they have no purposefully built buildings so face problems in keeping MS collection in a controlled environment. Separate MS display were available in six libraries; reserve MS room was in 12 libraries and five libraries shared information about their controlled rooms for MS. It was found that some of the institutions are trying to provide controlled environment i.e. temperature, light, air, dust control and specifically designed furniture. But this control was also uneven in many cases and some institutions even have none of them. Application of such standards was inquired from the respondents. Only three libraries were able to shared information on using UNESCO's manual for museums, manual of ICOM (International Council of Museums) and Pakistan Antiquity Act. Rest of the institutional respondents did not share any information about standardized conservation practices within their institutions. Manuscripts were placed in a Mughal tomb and in a Mughal palace (16th-century buildings) by two institutions in Lahore. Both buildings were not suitable for MS collections.

IV. *Furniture:* Special furniture is required for the MS as they cannot be kept in ordinary book shelves. Many libraries stated that they have good furniture for MS display however all shared that they are using wooden or iron bookshelves for keeping the MS in storage. Only few institutions have 8X8 glass and wooden box like shelves on angle of 60 for each of MS in their collection. Displaying featured and good condition was common in all institutions. At a couple of libraries, the MSs are still boxed in cartons and never been technically analysis for their conservation and preservation.

V. *Lighting and Environmental Control:* MSs' paper and ink are handmade and much delicate to bear light, heat, humidity, and cold. Institutions are inquired about the lighting systems in MS rooms and displays. Six institutions shared that they have standards lighting system e.g. avoiding direct light on MS and special lights to save MS from ultra-volute damage, rest of the institutions shared that they have good lighting systems for MS collection but none shared any of standards or precautions. Pakistan is a country with five seasons of the weather although summer is the longest one with heavy rains. Therefore, air conditioning can be a source of controlling the environment. Air conditioning facility was reported by seven institutions for MS collections out of 13 respondents while other stated that they have no AC facility for MS collection at the moment due to purposeless building, related costs and electricity failure problem.

VI. *Security:* MS are precious and heritage of any nation, so often attract theft and forgery happenings. Their security is of vital concerns. Close circuit cameras are used by the six institutions for the security of MS displays and reserves; security guards are also present in six libraries and other libraries stated that they have lock system and access to a manuscript is possible after unlocking at least three locks.

VII. *Level and Need of Conservation:* Respondents of seven institutions were of view that their MS collection is completely conserved, one institution stated that they do not need curative

conservation at the stage as still their MS collection is. Remaining libraries stated that they are in high need of curation and restoration of their damaged MS but have no facilities to do so.

VIII. *Conservation and Restoration Staff:* Specialized staff is needed for the conservation and restoration. Only seven institutions have qualified and trained conservation staff. However, it is also notable that in these institutions, this staff was not dedicated to MS conservation but was also for other artifacts of archives and museums. University and public libraries do not have professional conservation staff therefore library attendants were performing general duties i.e. dusting, wark-gardani (page turning) and fumigation. It was also commented that there are very few educational and training options for the conservation and restoration in Pakistan.

Preservation

Conservation of the MS is important to save the original but with invent of technology, there is a possibility of saving the contents for future generations. It can be done with the help of photocopies, microfilming or digitization.

I. *Methods of Preservation:* Interviewees revealed that photocopying, microfilming and digitization were used for preserving the MS. All the archives have microfilming sections and have microfilmed their almost MS. University and public libraries did not have this facility, therefore, mainly rely on the photocopying in the past. However, now 10 institutions have either started the digitization or in a planning process.

II. *Current State of Digitization:* Current state of MS digitization is somehow satisfactory. It was stated by five institutions that they have digitized 70% of their MS collection; another six were planning or at beginning of the digitization process.

III. *Availability of Required Resources:* Digitization is a complete process that requires planning, equipment i.e. hardware, software and skilled human resources. It was shared that many libraries have submitted proper plan of MS digitization to their respective authorities Acquisition of related hardware was a main part of the plan. Hardware included cameras, scanners, computers, computer server and a mobile digitization lab. Software acquisition was not added to plan as it was left for later stage. However, most libraries considered open source software (OSS) as a good choice for their digital library development and are working on DSpace. All the interviewees stated that they requested their authorities for the provision of qualified staff for digitization project.

IV. *Procedures:* It was stated by respondents that there was no defined process of selecting MS for digitization, but they got digitize according to their classification numbers or on request through scholars. Cameras and scanners were placed in MS rooms that MS many not be transported out of security. After taking the image from camera or scanner, this image is placed in a folder named with MS title, same folders are kept as digital copies and provided to scholars on CD/DVD. One library respondent stated that they arranged their digitized MS within a digital library developed with DSpace. Online catalogs are available in five libraries with in-house integration systems. Some libraries have uploaded their featured MS on their websites.

V. **Metadata:** It was revealed that only one library was aware of the metadata standards and using Dublin Core within DSpace. Three libraries have their in-house softwares for digital repositories and using self-developed metadata sets. Remaining libraries are not building the online repository or using metadata but keeping the scanned files into named folders on stand-alone computers.

VI. **Written Manual and Policy:** Researcher probed the interviewees about any written manual or policy for digitization. All the libraries involved in digitization stated that they do not have any written manual for the digitization process however only one library was following an international manual for digitization provided by World Digital Library Project.

VII. **Digitization Standards:** Use of authentic standards of digitization is not practiced commonly. Only one library was using standards defined by World Digital Library. Remaining were using some common standards e.g. 300 dpi image capturing, saving files as images and pdf etc. However, technically the similar standard sizes are not acceptable for verity of MS. The backup was kept either on the institutional server, CD's, external hard disk or stand alone computer.

VIII. **Staff and their Skills Level Digitization:** The libraries presently doing MS digitization have some IT staff or ICT skilled library staff under supervision of MS section in-charge or some other designated librarian. It was also mentioned by the respondent that their digitation staff has attended trainings for DSpace and digitization.

Collaboration

Manuscripts are collective intellectual heritage of nations. Every part of the world has its own unique MS materials i.e. paper formats, leafs, parchment, tablets etc. It is also considerable that specific writing materials of any region traveled to other places and are open to different environments than its original. In this case, collaboration with the experts of different origins is best option to learn the MS handling practices. Now a day MS holding institutions and organizations are joining hands to follow similar standards and practices for the better care and visibility of MS.

Respondents were of the view that MS placed in the governmental institutions are well protected against the environmental and internal decay then the MS in personal possessions. They considered collaboration important for MS safe keeping and to avoid problems in C&P. However, an informal and loose collaboration was found among institutions. Other reasons for the lack of collaboration were MS being in different provinces, lack of trust in institutions, long waiting due to less available facility centers and prolong official procedures to get it done. They also stated that there is a need to collaborate in terms of human resources' skill development, equipment and knowledge sharing of standards and procedures. There is a good collaboration for trainings of staff in past and future by National Museum, Karachi; Lahore Museum and National Archives, Islamabad.

Conclusions

Manuscripts and archives are neglected areas in Pakistan. The findings of this study draw a broader picture of the situation of MS and their C&P management at the national level to support

the survival of national intellectual heritage. The state of manuscripts and the conservation practices are satisfactory in some institutions but in others, situation is deprived and required urgent actions. Only preventive conservation was performed on a regular basis, curation and restoration are very rare. On the other hand, none of the digitization practices was up to mark but it is worthwhile that somehow the process of digitization has been started. However, need for awareness, proper training, benchmarking and planning is needed. The digitized materials are also still within the institutions without Online Public Access Catalogs (OPAC) and repositories to increase the visibility and research. The established conservation labs need to serve as a regional facility centers. National level conservation, preservation, and collaboration are required to achieve the goal of saving intellectual heritage. Overall there is a lot to be done to conserve and preserve the intellectual heritage of Pakistan on the national level.

References:

- Agrawal, O., & Prakash, O. (1982). Care and conservation of palm-leaf and paper illustrated manuscripts. *Palm-leaf and paper, illustrated manuscripts of India and Southeast Asia*, 84-90.
- Akram, A. F. (1998). Standards of judging importance [Urdu]. *Fakar-o-Nazar*, 35(4), 63-78.
- Balochistan Archives. (2014). Balochistanarchives.gob.pk. Accessed 15 October, 2014 from <http://balochistanarchives.gob.pk/>
- Bankole, O. M. (2010). A review of biological deterioration of library materials and possible control strategies in the tropics. *Library Review*, 59(6), 414-429.
- Bansode, S. (2008). Creation of Digital Library of Manuscripts at Shivaji University, India. *Library Hi Tech News*, 25(1), 13-15.
- Cunha, G. M., Poole, F. G., & Walton, C. C. (1977). The conservation and preservation of historical records. *American Archivist*, 40(3), 321-324.
- Directorate of Archives & Libraries Khyberpakhtunkhwa. (2015). Accessed 15 October, 2014 from <http://www.khyberpakhtunkhwa.gov.pk/Departments/HigherEducation/DAL/Introductions.php>
- Eden, P., Bell, N., Dungworth, N., & Matthews, G. (1998). Preservation needs assessment in libraries and archives: piecing together the national jigsaw. *Library management*, 19(4), 228-237.
- Govt. Punjab Public Library, Lahore. (2014). <http://www.gppl.org.pk/>
- Jimerson, R. C. (2002). The nature of archives and manuscripts. *OCLC Systems & Services*, 18(1), 21-23.
- Khan, M. A. (1998). A detailed survey of manuscripts [Urdu]. *Fakar-o-Nazar*, 35(4), 43-52.
- Lahore Museum. (2014). *Lahore Museum Virtual Tour*. [Virtual Tour] Accessed 15 October, 2014 from <http://www.lahoremuseum.org/>
- Levi, P. (2010). Digitising the past: The beginning of a new future at the Royal Tropical Institute of The Netherlands. *Program: Electronic Library and Information Systems*, 44(1), 39-47.
- Li, M., & Niu, J. (2010). A preservation framework for Chinese ancient books. *Journal of Documentation*, 66(2), 259-278.
- Manuscript Catalog: Library Collection, Punjab University (2014). Accessed 15 October, 2014 from <http://library.pu.edu.pk/manuscripts.php>
- Mazumdar, N. R. (2009). Digital Preservation of Rare Manuscripts in Assam. *7th International*

- National Archives of Pakistan. (2014). Accessed 15 October, 2014 from <http://www.nap.gov.pk/>
- National Mission for Manuscripts, India. (2003). *Basic Minimum Standards for Conservation of Manuscripts*. Accessed 15 October, 2014 from. <http://www.namami.org/conservation.pdf>
- Prytherch, R. J. (2005). *Harrod's librarians' glossary and reference book: a directory of over 10,200 terms, organizations, projects and acronyms in the areas of information management, library science, publishing and archive management*. (10th Ed). London: Ashgate Pub Ltd.
- Qutab, S. (2012b). State of manuscripts in Pakistan. *Chinese Librarianship: an International Electronic Journal*, 34. Accessed 15 October, 2014 from <http://www.white-clouds.com/iclc/cliej/cl34saima.pdf>
- Qutab, S., & Bhatti, R. (2014). *An appraisal of managerial and technical handling of manuscripts collection in Lahore, Pakistan*. 7th international WCOMLIS conference 2014: Information Governance: Trends, Challenges and Future. Malaysia.
- Rahmani, A. (1998). Manuscripts, importance and acquisition [Urdu]. *Fakar-o-Nazar*, 35(4), 31-42.
- Sahoo, J. (2004). Preservation of library materials: some preventive measure. *The Orissa Historical Research Journal*, 47(1), 105-114.
- Sahoo, J., & Mohanty, B. (2004). Indigenous methods of preserving manuscripts: and overview. *The Orissa Historical Research Journal*, 47(3), 28-32
- Sindh Archives, (2015). *Sindh Archives*. Accessed 15 October, 2014 from <http://www.sindharchives.gov.pk/index.aspx>
- Soheyl, M. U. (1993). *World survey of Islamic manuscripts* [Vol. 2], Roper, G (ed). London: Al-Furqan Islamic Heritage Foundation.
- Ullah, F. S., Malik, N., & Qutab, S. (2012). *Digitalization of intellectual heritage of Pakistan: A detailed analysis of the institutional repositories, archives, libraries and museums*. SAARC Conference for information professionals, Birla Institute of Management Technology (BIMTECH), Greater Noida, India.
- Walters, T. O., & Hanthorn, I. E. (1998). Special collections repositories at association of Research Libraries institutions: A study of current practices in preservation management. *The American Archivist*, 158-186.