Digital Mapping of Area Studies: A Dynamic Tool for Cultural Exchange

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Abstracts

The paper stresses the importance of Area Studies by visualizing the digital technology as a strong effective tool for Digital mapping. It emphasis the importance of rare documentary sources related to Area studies with special emphasis on the 'Area research on Nagpur'. The article highlights the Digital mapping projects at various levels and gives a bird's eye view of the work being carried out at the local level.

Key words : Area Study, Archives, Digital Mapping, Digitisation, Preservation

0.   Introduction

Information networking in the recent times is passing through an important phase, when the digital technologies are offering a stunningly efficient new means to store, and retrieve information from networks, which in turn generate enormous benefits to higher education, and research. The digital revolution in telecommunication and Computing has unified and integrated number of hetrogenous services, evolving digital systems which permit easy signal reconstruction, thereby enabling better quality services. The move to an image based communication environment implies mixing of varied styles of communication with a steady synchronised flow of information.   Hence, in this new technological era Digitisation has changed the entire concept of the ways scholars, Students, and general population find, use and disseminate scholarly information.

1.   Area Studies : Their Importance

Every region, and their precincts pass through a series of events, which are embodied and recorded in various documentary sources. It is only through these repositories, that every society is able to visualize its past cultural heritage and contributions in various fields of human endevour. Thus, the past acts as stimulus for present as well as the future advancements in the society. Prabhakar keshav sardeshmukh Maharaj very rightly says that "Money does not last, Empires disappear. Nothing else, but knowledge lasts, eternally."

Area Studies present the varied aspects of the growth and development of a particular geographical area, and documents relating to these, act as the primary sources of information. Mapping Area gateways, classify the local occurences, and events, and in turn, serve as a key source of reference and citation for researchers, They also deepen one's interest in the Art, Architecture, Culture and Heritage studies. The Area gateways serve as the road maps of cultural exchange for specialists, scholars and general masses alike.

1.1   Documents for Area Mapping : Their value

Documents relating to a particular area exhibits a wide gamut and variety ranging from Oral tradition, Archeological sites and remains,

Artefacts, Cultural material, Manuscripts of Individuals and Institution, to films and   CD-ROM'S. Each document has a definite value assigned to it, and plays a major role in deciphering the past by linking the same to the present, and future to pass on this cultural knowledge, from one generation to the other.

Among the key multilingual documentary sources, mainly classified as the Manuscripts, printed non-conventional and neo-conventional forms, are the Maps, Photographs, Dairies, chronicles, Letters, Memoirs, Reminiscences, Speeches, Travelogues, News papers, and Archival records from Corporate Bodies, Government, and Educational Institutions, Records of Temples, Churches, Mosques etc., Business Houses, Radio programmes and films released on different occasions, videos, CD-ROM'S etc.

Among the primary sources, and those widely used documents for any 'Area research' are the Archives, Individual records, Manuscripts in its various forms and languages etc., and hence, need the utmost care and preservation.

1.2   Archival Materials :   Their preservation

According to Fr. Vijay kiran and Ramesh Babu "The mission of preserving historically valuable items encompasses three archival functions, Arrangement, preservation and security. Arrangement, is the organization of archives or manuscripts in accordance with accepted professional principles; preservation is both the protection of records from physical deterioration, and damage; and the restoration of previously damaged items; Security enhances the protection of the documents from misuse and corruption."(1)

1.3   Preservation Reformatting

According to "Heather Brown" Preservation reformatting, the copying of information from one form to another is a key international Preservation Strategy, it saves the original from further damage. It also provides a copy, that can be used long after the original has crumbled to dust."(2) Among the widely used preservation reformatting techniques include transcription, photocopying, conventional photography, microfilming and digitization.

1.4   Reformatting using Digital Technology

In the words of 'Abby smith' "Digitisation is an excellent medium for access to information. Digital surrogates can make the remote accessible, and the hard to see visible. They can bring together research materials that are widely scattered about the globe, allowing viewers to conflate collections, and compare items that can be examined side by side solely by virtue of digital representation. Through image processing, one can even transcend the limits of human eye."(3)

Hence, one can view digital reformatting as an excellent tool for providing increased access to information by a global audience. The user is usually not restricted to a straight linear Sequence of a microfilm format. Digitisation is a superior option for reproducing half tones, photographs, and coloured originals. Enhancement of images by proper cleaning etc., make the faint marks on the original legible.

2.   Digital Area Mapping Projects : Efforts at the International level

A close 'review of the literature' on the above projects give a clear indication, that the Western countries have taken a lead in starting digital initiatives and according to S. M. Shafi(1) Digital scriptorium, MASTER, Oxford, Lund, Bodleian, N.L.M. and EMSI etc are some of important projects which have been initiated to preserve, and make the manuscripts accessible to the masses." Jean Mare-comment(2) has spoken of two key digitisation projects related to the Area studies namely "Comintern Archives for Russia" and 'Albania National archive Project.'

The comintern archives contain finding aids with reference about 2,40,000 files, half of these are personal files. The Principal Language of the files is Russian, and a great proportion is German. The archives

representing 60 countries in 90 languages have around 10 to 12 million documents. The project has been completed, and a joint venture between a Russian IT company, and a Dutch publisher is in offing, to provide an internet website in Moscow with free access to database, and fees for the images. The 'Albanian Central Archives' in Tirana have finding aids with references of about 6,60,000 files and 8,40,000 documents. The language being predominently Albanian. The project makes accessible all its resources in the reading room of Albanian Central Archives. Researchers are able to locate instantly the reference number of all files and material relating to their topic of interest.

Among the other country initiatives are the Chinese Academy of Sciences, Cuban Heritage online, Unesco's, Memory of the world, Indiana University's Indiana Studies programme, The Thames Pilot Project etc. Harsha Parekh(3) mentions about the American Memory project of LOC(http://memgry.loc.gov/), British Libraries treasure collections (Turning the page technology), Gutenberg Bible or Magnacarta (http://www.bl.uk/collections/treasures/digitisation.html) projects such as these have increased understanding of the past, strengthened national pride and identity, and informed both the far flung diaspora and generations to come.

2.1 Area Study projects : Efforts at National level

Though, the initiatives of developing digital Area Study projects in India, are either lacking when compared to their western counterparts, or in their primitive stage of development, there have posotively been some concrete efforts to work on such projects, specially in areas which have had a rich cultural heritage, and their documentary collection is distributed in private and public institutions in variety of media, languages, scripts, collection, sizes, in different conditions.

Notable few are the 'Makhtootat multilingual multiscript Digital Library project' of the University of kashmir which explores a variety of research and development problems related to multilingual multiscript medieval manuscripts, and is working on to build a system, that supports research and developmental activities. Digital Library initiatives in Nepal is also worth mentioning here.

Several University Libraries and Institutes of repute like the Punjabi University, Patiala, Mysore University, Pune University and C-DAC, INTAC, Indira Gandhi National Centre for Arts etc. are examples of National program that aims to preserve the knowledge held in millions of Indian Manuscripts for the benefit of future generations.

3.   Projects at the Regional and Local Levels

Of late, a number of agencies at state, and Local levels are understanding the growing importance of such area studies, and have expressed deep concern over the loss and decay of the documentary evidences. Institutions, and Individuals both are trying their best to make first hand efforts in preserving these historical evidences using modern technologies.

The vidarbha Heritage Society, Vidarbha Nature and Human Science Centre, Vidarbha Research Society are surging ahead by taking a leading role in applying digital technologies for the documentation of Heritage sites and the Archives related to these. Noted Historians, Nature lovers and several Corporate agencies are also working in this direction.

3.1   Efforts at Individual level

A Ph. D. level project was undertaken by the author as a mark of tribute to the City (Nagpur) on completion of its Three Centuries in the year 2002. The 'Bibliographic Area study' presents a study based on all the

scattered documentary sources on varied facets and brings them together in a standard format. The data collection complete, and the project in its writing stage would be submitted early next year. The city has passed through several reigns in the past three centuries, and has generated documents in various languages and forms scattered in almost every part of city and region with Individuals and Institutions.

3.2   Database on the Area Study

Three kinds of separate databases have been generated. The first being the *Bibliographic data base* which runs into thousands, are on Ten major aspects of the city, presented in the Standard MLA format. The Textual data base presents a study based on cited works and bibliographies. The pictorial data base presents the pictorial orange city of Nagpur in various times, their rulers, monuments, etc with descriptive tags and index. These have been photographed, and scanned on CD'S.

3.3   Documentary evidences : Their specialities

3.3.1 Dr. Bhausaheb Kolte alias Nagpur University Library

Started in the year 1923, it has a very rich collection of 3,43,903 books; 32,500 back volumes of periodicals; 11,000 thesis, 15,000 manuscripts etc. in the library. It is a fine blend of a rare collection of manuscripts, books, maps, reports gazetteers, Thesis etc in various languages predominantly Hindi, Marathi, Modi, Urdu Arabic, Persian, and English. A sizeable collection is excluisevely on Area Studies, predominantly the manuscripts. The Nagpur University with its own publication unit has published more than Hundred titles and a number of them are on different aspects of this area.

3.3.2 Departments of the University

The University presently has around 46 Departments with a centralized PG Campus and Mahatma phule campus Library. Each Department with its seperate collection adds to the documentary sources. Quite a few Departments which have existed for more than 65 years now have a good collection only on this Area (Nagpur).

3.3.3 University affiliated colleges

There are around 120 colleges in the city, and a few them have already completed their centenary. These have rare documentary sources only on the Area studies, and a major proportion has already been lost and decayed for want of proper preservation measures and techniques.

3.3.4 Public Libraries, Corporate bodies, and Government Institutions

A number of public libraries having a rich history of more than Hundred years, have also their major share to contribute in building a strong Bibliographic database on this Area, but once again, due to lack of proper preservation techniques, the collection is in shambles and needs urgent restoration. Corporate Bodies and Government Institutions, have generated their own records which add rare Bibliographical value in these studies.

3.3.5 Central Museum and its Library

The third largest museum in the Country, it exhibits rare archeological findings, artefacts and rich cultural Heritage of this region. Quite a few galleries are devoted exclusively to highlight the various facets of this region in different times. The library has a rare collection of 3983 documents.

It has one of the finest collection on the Area Studies and with the modern technologies showing its lasting impact, the museum is all set towards digitizing its records, and has launched its independent web site "central museum nagpur.com." recently.

3.3.6 Individual collections and Records

Renowned families, and their generations who have witnessed the fall, growth and development of this area have collected their own records in the form of chronicles, sanads, diaries, etc which have a very significant value in the Bibliographic data base. Collections of Artefacts, and rare material of this region in the individual collection adds authenticity to the data.

3.3.7   Vidarbha Archives : Key multilingual sources of the Area study

Set up in the year 1971 at Nagpur, the record office has various documents related to vidarbha, and a major chunk of its collection are exclusively on Nagpur Area in mixed script of Modi, Persian, English and Marathi. The bundle of correspondences with several files and documents are today extremely old and worn out. The collection dominates thirty one major departments with records from 1906-1956, and files ranging from 6 to 9907. Several Archives have been transferred to Record office, Bhopal after the reorganization of states in 1956.

Among the private collection, related to the Nagpur Area, the following are notable few

Table 1 private Archival collections in vidarbha Archives

S.No.	Collection	Span (years)	Details
1.	Subedar Collection	1750-1900	4 Bks and bundle of papers in Modi Script.
2.	Chatte Collection	1750-1800	Land records, Rewards, 400 documents etc. in Modi script relating to Bhonsles of Nagpur, Mehekar government, gifts of Holkar, History of Bhausaheb etc and 61 Books of Historical importance
3.	Adgaonkar DeshpandeCollection		1798-1897Eleven bundles in modi Script. Records are related to Income sources, Land records, and accounts of these families.
4.	Khaparde Collection	N. G.	27 budles in mixed Script of Eglish, Marathi and modi. Life sketch and khaparde's contribution in different fields.
5.	Rambhau Danaji Patil	1905-55	18 Diaries in Marathi and modi script written by shri. R.D. Patil
6.	Pantawane Collection	N.G.	Religious prayer books written by Sridhar belonging to the ancestors of Shri. P.V. pantawane

Source : unpub. Catalogues and records of Vidarbha Archives

N.G. – Not Given

Apart from the above, several private collections of the region (Vidarbha) are also included in the Archives along with 13Rolls of Microfilms in these private collections.

3.3.8 Akashwani, Doordarshan Kendra and South Central Zone Cultural Centre.

Among the Non-Conventional documentary sources, all the centres mentioned above generate special programmes, and materials on different occasions to boost up the art and culture of this region. The video cassettes on the Nagpur Tercentenary, conventional photographs, films, audio and video cassettes, CD'S etc. form a major chunk of this Collection. Several sports agencies have added new dimension to these and quite a few Health care Centres have also contributed a sizeable share in building documentary sources for this region.

3.3.9 Web Sites on Nagpur Area : A Modern tool of Information retrieval

With the growing impact of technologies, Web Sites launched by Individuals, Organisations and Institutions have become a handy, reliable tool for the area study. Among the popular web sites on 'Nagpur' are the 'nagpurkhoj.com.' geocities.com., etc.

4.   Limitations of the Study

The scope of this area study on Nagpur being sufficiently large, the coverage of the data bases cannot be comprehensive. Looking to the limitations of time, manpower money and other constraints, digital reformatting of the documentary sources for the present Study has been restricted to few selective areas (for ex. The pictorial representation of Archives, Monuments etc of this region). Conventional photography, scanning of photographs from the documentary sources on CDS microfilming etc. have been used on a large scale.

5.   Directions for Digital Area Mapping : Some recommendations

There is an urgent need to take up such large scale projects with a proper funding base, either in the form of Minor or Major Research Projects preferably by younger professionals in coordination with experts (Individuals and Institutions) from different fields.

5.1   In-house Computerised Bibliographic Databases

The Scatter of collection in different parts of the city in different libraries, urgently need creation of Bibliographic Databases. The In-house Computerised databases exclusively on the Area study of Nagpur developed by all the agencies mentioned above would be extremely helpful in bringing all the scattered bibliographical sources together.

A recent survey has also revealed, that almost all the important Government agencies like (AnSI, ASI, IBM, GSI etc) and a number of educational institutes, and other organizations, and centres of repute have computerized their In-house operations. The main challenge would be to create an on-line Database on Website. Since all the agencies may not have the internet connection, the alternative means to access resources in digital form would be CD-ROM. Establishment of Locally generated Digital libraries, on-line news services etc would be extremely helpful in giving a meaningful direction to such Area Studies.

6.   Issues of Concern in digital Preservation

Digital access, though dynamic and far reaching have several issues of Concern. 'Harsha Parekh'(1) has voiced her concern about the managerial matters like misuse of technology (piracy, distortion and plagiarism, IPR etc), Costs of digitization (financial viability from commercial point of view), resource mobilization, Skilled manpower etc. 'Masoom Raza' and 'R.L.Arora'(2) while speaking of digital preservation issues have opined that "Adopting appropriate selection guidelines, securing archived items from intentional or unintentional alteration, recognising the creator's responsibility etc" would be issues of serious concern in the digital environment."

7.   Conclusion

Digital technology has opened new doors for an effective collaboration between libraries. It has also boosted the energies of individual libraries by bringing them together to offer powerful services based on technological expertise.

Understanding Area Studies in the real sense, and giving them due importance has almost become mandatory in the recent times. The importance of manuscripts and other documentary sources relating to the history and development of any area are invaluable sources for the authentic mapping in any Area study, but due to lack of effective organizational support, these studies have not caught up with recent times. Preservation of documentary sources has also not been understood in proper sense. We need to pay great attention to long term preservation, and the use of digital data as an effective tool for data exchange. It is only then, that the Digital Mapping of the Area Studies could be projected as a dynamic tool for cultural exchange and carry the same for the benefit of future generations.

8.   References

1.   Aiyepeku, W.U. Geographical literature on Nigeria, 1901-1970 : An Annotated Bibliography. New York:G.K Hall and Co., 1974. 214.

2.   Barry, Jeff. "Digitising Cuba: Bringing the cultural Heritage of an Island Nation Online".Proc. of the intl. Conf . on Digital Libraries, V1, Feb.24-27, 2004: New Delhi : TERI, 2004. 167-71.

3.   Handa, C. Nagpur Guide. Nagpur: Handa Travels, 2002.

4.   Jeevan, V. K. J, and Dhawan, S. M. "Problems in Transition to a Digital Library". DBIT 22 (2002): 13-19.

5.   Kaur, Trishnajit. "From Manuscripts to Digital documents'.Proc. of the intl. Conf . on Digital Libraries, V1, Feb.24- 27, 2004: New Delhi : TERI, 2004. 437-441

6.   Kuffalikar, C. R. "Preservation for Posterity Need to Digitise the Local History Collection': A Nagpur Tercentenary special Proc. of the natl. Seminar on Impact of Digitisation on Development on Development of Information Professionals, Feb.28-Mar.1;2003:Ed Ashwini A. Vaishnav, and Shashank Sonawane. Aurangabad : BAMU, 2003.CD

7.   Kuffalikar, C. R."Rejuvenating Local Histories : Preserve or perish Proc. of the intl. Conf . on Digital Libraries, V1, Feb.24-27, 2004: New Delhi : TERI, 2004.V.II

8.   Kumar, P.S.G. Archive as a source of Information Indian Encyclopedia of Library and Inf. Sc. VII AF-AR. New Delhi: S.Chand and Co., 2002. 390-396.

9.   Kumbargoudar, P.K., and Mestry, Mamta." Ideals and Illusions of Digital Libraries". University News 40(2002):5-8.

10. Mahajan, S. G. Pune City :Its History, Growth and Development. : 78 to 1998. Pune :Mansanman Prakashan, 2002.223

11. Mahajan, S. G. Pune Sharacha Dnyankosh. Pune : Dnuankosh Pratishthan, 2004.

12. Nagpur University, Nagpur : A profile. University News 40 (2003): 9-10.

13. Pradhan, Mohan Raj. "Digital Library Initiatives in Nepal". ".Proc. of the intl. Conf . on Digital Libraries, V1, Feb.24-27, 2004: New Delhi : TERI, 2004. 179-184.

14. Raju, A. N. "Need for Development of Local History Collections at the District Central libraries in Andhra Pradesh, Herald of Library Science 24 (1985): 273-280.

15. Raju, A. A. N. whither our Documentary? University News 40(2003):9-10.

16. Rajyalakshmi, D. "Digital Libraries". New Horizons 11(2001): 20-29.

17. Rath, Prabhash Narayan, Murlibhara, N, and Shinde, Swati. "Digitisation as a method of Preservation of cultural Heritage." Proc. of the intl. Conf . on Digital Libraries, V1, Feb.24-27, 2004: New Delhi : TERI, 2004. 392 -405.

18. Ratwani, M. R. And Ali, Amjad. "Electronic Preservation of Oriental Manuscripts. University News 40(2003):5-6

19. Skimmer, G. W. Heich, W., and Tunita, S. Modern Chinese Society : An Analytical Bibliography. V.I Publications in western Languages 1644-1972. VII Publications in Chinese 1644-1969. V.III Publications in Japanise. Califorania : Stanford Univ. Press, 1973.531.

20. Tourville, E.A. Alaska : A Bibliography. 1570 -1970. Boston : G. K. Hall and co., 1934. 738.

21. Word, R. E., and Shulman, F.J. The Allied occupation of Japan : An Annotated Bibliography of western language Materials. 1945-52. Chicago : ALA, 1974. 839.

22. Vijay Kiran, and Ramesh Babu. "Digitization of Archives." Proc. of the natl. Seminar on Impact of Digitisation on Development on Development of Information Professionals, Feb.28-Mar.1;2003:Ed

23. Ashwini A. Vaishnav, and Shashank Sonawane. Aurangabad : BAMU, 2003.CE2)

24. Brown, Heather. "Preserving cultural Heritage for Future Generations : A Hybrid solution". Proc. of the intl. Conf .on Digital Libraries, V1, Feb.24-27,2004: New Delhi : TERI, 2004. 406-417.3)

25. Smith, Abbey. "Why Digitise?" CLIR Issues. Council of Library and Information Resources (23 Dec. 2003) http://www.clir.org/pubs/issues/issue08.html

26. Shafi, S.M. "Makhtootat : Multilingual and Multiscript Digital Library of Medieval Manuscripts Initiative". Proc.of the intl. Conf .on Digital Libraries, V1, Feb.24-27,2004: New Delhi : TERI, 2004. 442-448.

27. Comment, Jean-Marc. "Archiving cultural heritage and history through Digitization : Case Studies from Russia   (Comintern archives) and albania (national archives) Proc. of the intl. Conf .on Digital Libraries, V1, Feb.24-27,   2004: New Delhi : TERI, 2004. 387-391.)

28. Parekh, Harsha."Digitization in India : Developing and Implementing a National Policy." Proc. of the intl. Conf .on Digital Libraries, V1, Feb.24-27, 2004: New Delhi : TERI, 2004. 202-207.

29. Parekh, Harsha."Digitization in India : Developing and Implementing a National Policy." Proc. of the intl. Conf .on Digital Libraries, V1, Feb.24-27, 2004: New Delhi : TERI, 2004. 202-207.

30. Raza, Masoom, and Arora, R. L. Digitization on, Preservation and Management of Rare Materials in Modern Library system". IASLIC Bull. 49 (June 2004): 89-92.

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