DEVELOPING NEW APPROACHES TO THE PRESERVATION AND SHARING OF AFRICA'S PRINTED HERITAGE: THE ERITREAN CASE.

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The project that we have been working in the last two years is the case of a dispersed collection and the attempt to virtually recreate/ reassemble it. The project was financed by the European Union (EU) with the granting of a Marie Curie fellowship and implemented in cooperation with the Research and Documentation Centre of Asmara and the University of Pavia (Italy) in the period 2009-2011.

The aim of the project was to identify and digitally recreate a significant part of the national print heritage of an African nation, Eritrea, using digital technologies. The period considered was 1867-1941, the former the date of the first book printed in Eritrea and the latter the end of Italian colonialism. We hope that our experience will elicit comments and suggestions and provide inspiration for other countries that would like to start a similar project.

The digital era opens new opportunities for both the scholar and the library to gather information on book history and to address the many challenges that the colonial past has also posed to the preservation of its own past.

In researching African history much attention goes to sources. Archival sources continue to play a vital role in unfolding the African past. Other kinds of documentation can help scholars in researching African history and for a long time the use of oral sources has been recommended as fundamental in writing African history. Archaeological data are important, and have an air of objectivity about them that convinces many historians. Historical linguistic data analysis can also offer a contribution.

Due to the fact that in colonial days many documents on the life of African countries were removed by colonial officials to the West, many scholars within Africa have to address the fact that much of the African primary heritage is housed beyond the borders of Africa. For this reason, many African cultural institutions have attempted to negotiate with former colonial powers the repatriation of part of their national heritage. The advent of digital technologies has offered scope for new solutions to some of the problems involved in this

operation. Offering the possibility to aggregate in a single place materials that are physically scattered and difficult to access, the Internet offers a real chance for the "virtual repatriation" in digitized format of archival collections taken from Africa. Consequently some African countries have attempted to recover their historical sources through the use of digital technologies. Initially the urgent task of preserving African primary sources, i.e. parchments, manuscripts, archival and oral sources, was able to attract the lion's share of the attention.

Other sources do not enjoy the same level of popularity and seem to be underused despite their rich potential. This is the case, for example, of a particular kind of printed document almost neglected by most Africanists: printed materials produced in Africa since the arrival of the first printing presses. The way in which this kind of source has been neglected is astonishing. Consequently we are facing the risk of a generalized indifference toward the preservation of and access to the printed sources produced in Africa. This is despite the fact that it has gradually become apparent that local printed materials are rich sources of information and can greatly contribute to the understanding of many aspects of the modern history of Africa.

Locally printed books, newspapers, magazines, official documentation and religious literature have provided a key source of information for scholars investigating social, political and literary history and have exposed students and scholars to materials of which they would otherwise not be aware. The recovery and preservation of these materials will undoubtedly enrich an appreciation of the cultural history of the African countries.

Each country in Africa is currently faced with the challenges of securing this important part of national cultural heritage. Many of these resources have lasting value and significance, and therefore constitute a heritage that should be protected and preserved, but this heritage is at risk of being lost to posterity and its preservation is an urgent issue. Nevertheless, most African countries have never carried out satisfactory inventories of this kind of product, and the recovery of this part of cultural national heritage poses major challenges:

1) In most of the cases we do not know the number of books printed in the country. There are now reliable catalogues.
2) There is no library that houses full collections.
3) The books have been printed in very limited quantities (200-300 copies).

As one of the main tasks of each National Library is to collect, preserve and provide access to the national printed heritage, how can African countries develop an effective strategy in order to carry out their mandate? How to re-build the national printed heritage of an African country? Classical options like buying on the rare books market and asking for donations of books are not viable solutions, as many African libraries have not enough resources to go to the old and rare book market.

To address this problem we started to think about a new approach based on digital technologies. The only possible way to recover this unique output is through the implementation of a strategy of "virtual repatriation" employing digital technologies. Digital

technologies go far beyond physical boundaries, allowing heritage institutions to build collections across institutions and countries.

The project aims at carefully identifying the printed products of Eritrea in the period 1867-1941 and in facilitating access to this documentation. The strategy that we have followed consists of three main phases:

1) The first phase aims at providing a detailed and complete overview of the history of Eritrean printing press. This target has been accomplished through the preparation of a detailed bibliography of Eritrean printed documents published up to 1941, the year in which the Italian colonial domination ended. As most of these materials are rare and exist in a very limited number of copies, information has been provided on the location of available copies. In this phase the project has required a major input from bibliography, history and information science.

2) The second phase aims at the digitization of these documents. Our assumption is that long-term preservation of digital heritage begins with the design of reliable systems and procedures which will produce authentic and stable digital objects and provide access through web pages at the results of the research. The adoption of standards and best practices are essential in ensuring that cultural heritage institutions provide resources of a high international standard. Therefore, the project has employed the guidelines and best practices elaborated by the most reputed organizations in the field: The International Federation of Library Associations and Institutions (IFLA), UNESCO and the Food and Agricultural Organization (FAO).

   The same approach has guided the choice of the software for the implementation of the project. Our choice has gone to Greenstone, software developed and distributed by UNESCO for building and distributing digital library collections. It is open-source, multilingual software and it is distributed free. This policy has enabled us to keep the cost of the project implementation to the lowest.

3) The third phase will concern accessibility. Our point is that no matter how much effort is put into carrying out a research investigation, it cannot be regarded as complete until the findings have been disseminated. Indeed the dissemination of the findings of research is considered absolutely essential in extending the frontier of knowledge. To this aim a specially conceived web site is under construction. The main features of our web site will be based on simplicity and reliability and will endorse a user-friendly policy, paying due attention to the linguistic issues involved in our project.

The project has lasted two years. The first year was spent entirely in Eritrea. We visited a dozen libraries and archives and were able to compile a preliminary bibliography of the books and periodicals printed in Eritrea between 1867 (first book printed) and 1941 (end of Italian colonial domination). When we presented our proposal to the Marie Curie Fellowship Committee we calculated we would deal with an estimated number of 300-350 titles, an estimate that was the result of an extensive bibliographic research performed on the

catalogues of the major European libraries. As a result of the field experience carried on in Eritrea we were able to double this number to almost 750 titles! On many occasion we were working on the only survived copy of a book. We are particularly proud of having been able to rebuild most of the collections of locally printed journals. Constant verification of the results obtained suggests that our bibliography is accurate and that we cannot expect to add a considerable number of new entries. We assume that we have probably captured 90-95% of the entire production.

We placed great emphasis on the digital reproduction of these documents and the bibliographic work has always proceeded in parallel with the digitizing one, so at present 75% of the identified titles have been digitized, with a total of some 105,000 digitized pages (see Table 1). We are now working on the creation of the website in order to offer access to our valuable collection.

Table 1: Nr. of pages digitized

Year and month	Number of pages digitized
2010	
April	30,000
June	45,000
August	72,000
October	75,000
2011	
June	92,000
October	105,000

Research methodology

This proposal argues for overlapping of the work of historian, librarian and digital technology expert in reconstituting a digital resource for the recovery of Africa's printed heritage. The envisaged approach is eminently multidisciplinary, involving a combination of elements from African history, library and information science, librarianship and the use of digital technologies. It is important to understand that we were not digitizing a collection held in a particular library but working on a group of books that shared one common element, that of being printed in Eritrea in the period 1867-1941. This has imposed an approach based on strong mobility (visiting many libraries instead of working on one particular institution) and on research (to discover instead of to rely on records previously prepared).

The model proposed is simple and requires limited resources for implementation; it advocates a different approach based on simplicity and aiming at minimizing the costs of the project. This target has been achieved by making use of the resources developed by a competent international organization, available free and able to cover all the aspects involved in the implementation of our research project.

Following the example set by the project, other African countries could even attempt to recover their national print heritage without appealing to external donors, managing the

entire project locally. In this respect Eritrea is the best candidate, having enforced since independence a strict policy of self-reliance.

We relied on free software, our equipment was very ordinary computers and scanners. The four flatbed scanners that we used were bought at an average price of 90 euros each and all of them lasted to the end of the project (with an average of 20,000 pages each!). The only A3 scanner in our possession was significantly more expensive but the cost remained below 1500 euros. All the equipment was energy-saving and we deliberately avoided using private transport. The team used public transport and the equipment, being very light, was transported by bicycle, which was our main transport.

This research project will help to preserve neglected and endangered sources for African history and will stimulate knowledge creation and its analysis by local researchers and communities. The project aims at becoming a useful model for African initiatives. At the community level the action proposed will help in setting an operative strategy for the preservation and access of African printed materials. The project represents the first attempt to recover a full national bibliography in digital format and to our knowledge no African country has ever embarked on a similar initiative; most African countries risk losing an important part of their cultural heritage by neglecting this aspect.

Through the legacy of colonialism, which frequently resulted in the housing of valuable historical materials in repositories outside the country of origin, Europe has played a crucial role in the project. Most of the printed materials of interest to the research project are of colonial origin and so the recovery of these sources has a double level of interest, one concerning the former colonial powers and the other the former colonized countries. It is evident that these printed materials belong to the history of both Africa and Europe and that their recovery opens up new perspectives on the history of the colonial period. The only way to achieve a successful outcome implies the fulfilment of an international partnership in which one stakeholder cannot work without the other.