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Angela Karibu

DIGITAL CURATION? THE STATE OF THE ARCHAEOLOGY COLLECTION AT THE NATIONAL MUSEUMS OF KENYA

Angela Kabiru
Archaeology Section, Earth Sciences Department:
National Museums of Kenya, Kenya
P.O. Box 40658
Nairobi
Kenya
akabiru@museums.or.ke
www.museums.or.ke

Abstract

Despite housing one of the most important archaeological collections in the world, the archaeology section of the national museums of Kenya facing enormous problems as far as curating its collection is concerned. This paper discusses the history of the collection, current documentation and collection management, problems arising from the current state of affairs, and what urgently needs to be done. The process of digitizing and subsequent digital curation will go a long way in improving both collections management within the section, as well as streamlining of the whole research process in terms ofupdating, retrieval and dissemination of information.

INTRODUCTION

Digital curation may be defined as maintaining and adding value to a trusted body of digital information for both current and future use. It is the active management and appraisal of digital information over its entire life cycle. It can also be defined as the process of establishing and developing long term repositories of digital assets for current and future reference by researchers, scientists, and historians, and scholars generally. I prefer to stick with the second definition, for I will try to describe our attempts to become digital. I say attempts because we have had many false starts, are we are still a long way from being fully digital. Therefore in this context before discussing about ‘curation’ which is defined as ‘verification and additions to the existing documentation’, we should

think about preservation. I will use the definition “long-term, error-free storage of digital information, with means for retrieval and interpretation, for the entire time span the information is required”. “Retrieval" means obtaining needed digital files from the long-term, error-free digital storage, without possibility of corrupting the continued error-free storage of the digital files. "Interpretation" means that the retrieved digital files, files that, for example, are of texts, charts, images or sounds, are decoded and transformed into usable representations.

THE NATIONAL MUSEUMS OF KENYA

The National Museums of Kenya was established in 1909 by a group of hunters and explorers as the East Africa and Uganda Natural History Society. Their main goal was to collect, document and present to the public their findings of research in the flora and fauna of East Africa. Because there was a large amount of data, specimens and artifacts already collected and with more coming in, it was decided that a storage and display facility was required, and so an official museum was born. Initially called Coryndon Museum, it was renamed the National Museum in 1964 after Kenya became independent.

From its beginnings as a small repository of natural history specimens, the Museum has grown over the years into a multi-disciplinary research institute hosting centers of scientific excellence, such as the East African Herbarium, the Centre for Biodiversity, and the Institute of Primate Research. It is now an institute of international repute which is made up of over twenty departments and divisions, including Archaeology, Palaeontology, Mammalogy, and Education. There are 15 regional museums throughout the country, and 8 historical/archaeological sites open to the public.

ARCHAEOLOGY SECTION

The archaeology section is in charge of collecting, documenting and storing all prehistoric cultural artifacts collected from all archaeological sites in Kenya. It is also its responsibility to conduct rescue operations to save material that has been exposed

through natural processes, and to survey areas where major development activities are planned. Collections of artifacts began in the 1920s while Kenya was still a colony. Since then every year, the collection has grown by a few hundred objects at least, both from new sites as well as previously recorded ones.

Some of the most important archaeological discoveries in the world are housed here. The archaeological discoveries of Kenya are unique in that they include the records of human development from when humanity first took form and evolved into modern man. The antiquity and variety of cultures present in the Kenyan record has attracted researchers from all over the world. The record includes sites dating from the Early Stone Age (2.6 million) until recent times. So far, 4370 sites have been recorded, some of which have artifacts running into the thousands.

Each of these sites has information stored in several formats. These are described below.

Site cards contain brief information about each site that has been reported and recorded. It also contains a brief description of objects collected from the site and any other associated documents on the collection, including published references. The site card contains a summary of the data available for a particular site, and is used to locate the file by site name. Also indicated on the card is the location of the collection on the storage shelves.

Culture cards contain the same information as site cards, but it is the accession number that is used to trace the information folder.

Folders

Folders contain all the information about a particular site. They contain a survey form, which is the first document when a site is first found or reported. It contains information on location, land ownership, condition of site, material observed and collected and how to

get to the site. It is also indicated whether the site has been excavated, and by whom. Any excavated materials should always s be accompanied by a catalogue or a list of the items, field notes, site plan and photographs. Also included is a list of any published references and other sources of information of the collection. The folders are written in duplicate.

Accession register

All sites for which a survey form has been filled are then assigned an accession number in the order in which they are reported and recorded. Accession numbers are for documentation only and do not tell anything about a site or collection. Accession numbers appear on information folders, and are one way of locating a collection on the shelves, the others being the site name, and SASES number.

SASES (Standardized African Site Enumeration System) is a site recording system in the order in which they are discovered relative to a geographical grid. This is done on a continental grid that is divided internally within the latitudes and longitudes. The system is easy to use and prevents the duplication of site designations, while efficiently handling large amounts of data. It also helps in streamlining cataloguing and storage procedures, though it is not designed to replace site names or formal map references.

Maps

These analogue maps present a very challenging problem because the information on them has not been updated for a very long time. Infact, some maps were published in the1970s and been reprinted ever since, without revision. The more recent ones may be at least twenty years old, and geological maps have not been redone since the 1960s. Now considering the pace of land and other urban developments, it becomes very confusing when a researcher goes out to look for a site that was recorded twenty years ago on a location that was described as open only to find that the whole place is built over. Or land whose ownership has changed or even been gazetted but is not indicated on the map that

it is protected. District boundaries have been changed many times when new districts have been hived off old ones but even then the maps have not been revised.

All these records are however still in paper format, and present a particularly challenging problem when updating or retrieving information. Cross-referenced searches are problematic especially if part of the information is missing or has not been updated. The current system is also risky in case of fire because all the originals and duplicates are stored in the same place. It is clear that the current management system is in need of modernization to accommodate the large numbers of sites and artifacts that NMK is responsible for. It is also necessary to integrate sites and artifacts into a comprehensive database that makes the collection and associated data easy to manage.

The idea to modernize the entire Museum collection management system is however not new, and was begun in the 1990s. At the time, departments within the Museum used to co-ordinate their activities with the Computer Systems Department through designated Database Administrators resident in the user departments. Together with the Database administrators systems were designed to meet the individual departments' needs in various areas including collection managements systems, research databases etc. However, due to a system malfunction this is no longer possible and the institution no longer has a centralized database. Each department is therefore responsible for acquiring software and developing their own individual database. Only the Biodiversity Database draws together on the extensive collections housed in various biological departments, and on the ongoing Fields Programmes within the Centre. This also means that various departments have databases that are not compatible because they may have been acquired from different sources and there was no coordination in their construction.

Currently the archaeology section has a collections database under construction. However, it is also necessary to have a GIS database to store and manage all the spatial data that is used. These include satellite photographs, aerial photos, topography maps, geological maps, site plans and so on. A GIS based database will also aid in the analysis

of spatial relationships and better assess potential impacts of human activities on archaeological resources.

Creating a digital database for an archaeological collection of this size is a large undertaking. A comprehensive database that allows both qualitative and quantitative descriptions of artifacts with all associated documents such as photographs will require massive input in terms of time and manpower. One of the problems facing the process of digitization will be deciding what to digitize and what not to, mainly owing to the large amounts of objects excavated. Some sites have thousands of artifacts and simply going through one collection will take a long time. It does not make sense to digitize all the artifacts in a collection, and in cases where we are dealing with very large collections, a decision should be made on which are the most important objects that make a fair representation of a particular collection. Who then should make this decision? The researcher analyzing the collection should be in a good position to do so, but we all know that what is important to one researcher may not be important to another. How then do we decide what is a fair sample of the collection?

Training and infrastructure are the other requirements at this stage, and so continuous education, training, and dedicated funding is critical. Online digital libraries such as Aluka connect scholars from around the world by building a common platform that allows online collaboration and knowledge sharing. “Aluka partners with libraries, museums, archives, universities and other educational and cultural institutions around the globe to select and digitize a wide range of high-quality scholarly materials—ranging from archival documents, periodicals, books, reports, and reference works, to maps, oral histories, plant specimens, photographs, and high resolution three-dimensional models of cultural heritage sites. By aggregating these materials online”, …”opening up new possibilities for research and teaching. The process of building and working with the collections also fosters international networks of students and researchers with similar interests, while Aluka’s web-based platform provides powerful tools for collaboration and information sharing. In some cases digitization also preserves materials that are in danger of being lost.”

Indeed, Aluka is already in the process of digitizing some collections in sone departments of the National Museum. It is important to explore avenues such as this one, but issues such as legal requirements and revenue generation within the section need to be worked out. Both digitization and curation are ongoing processes, but in order to curate we need to go digital. How long that will take depends on the availability of resources.

BIBLIOGRAPHY

Nelson C M. (1993), A Standardized Site Enumeration System for the Continent of Africa. *Nyame Akuma*, 40, pp.

WIKIPEDIA (2008) Digital Curation. http://en.wikipedia.org/wiki/Digital_; accessed 15 May 2008

ALUKA (2006) About Aluka. www.aluka.org; accessed 21 May 2008

Digital Curation Centre (2005) what is digital curation? www.dcc.ac.uk/; accessed 15 May 2008

ITHAKA (2004) ALUKA. http://www.ithaka.org/incubated-entities/aluka; accessed 26 May 2008