Cultural Heritage Preservation Through the Preventive Conservation Methods in the National Museum in Lagos

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Introduction

National museums in Nigeria were established to safeguard its cultural heritage from theft, illegal exportation, religious fanatics and destruction by environmental factors. The initial plan of the Federal Antiquities Services did not preclude objects collected to be in relation to museum buildings, facilities, equipment and conservation environment. Over the years there was little consideration given to modern scientific methods, facilities and environments in which these objects were preserved (Oyinloye 2015). The development of public museums devoted to the conservation of relics of early cultures and civilizations and traditional materials of its rapidly changing people came into Nigeria much later than in many other countries in Africa (Fagg 1963). Lagos Museum was established in 1957, and later became the seat and headquarters of the Antiquities Services in Nigeria. The Antiquities Services started with two senior officers, and later grew to become the Federal Department of Antiquities with ten professional officers and a large technical establishment responsible to Jos, Lagos, Ife, and Oron Museums (Fagg 1963). In the museum, over 60 to 65% of the collections are wooden sculptures. They include over 600 door panels and 3200 ancestral figures. There are over 7000 masks and headdresses; and the museum holds more than 3000 of the delicate wood carvings of Ere-Ibeji figures (Adebayo 2003; Ajeluorou 2010).

The construction of the Lagos National Museum building started in 1956 and was formally opened to the public on 9th March, 1957 (Essien 2009; Fagg 1963). The National Museum in Lagos has various units: (i) exhibition galleries, (ii) art and craft workshops, (iii) conservation room, (iv) photographic unit, (v) library, (vi) collection stores, (vii) education unit, (viii) export permit unit, and (ix) administrative sections.

Data Collection and Presentation from the Museum

During the study, various categories of museum professionals were interviewed at Lagos National Museum (Appendix 1). We also interviewed woodcarvers, sculptors and sawmillers in Lagos and Ogun States. Primary information on how the wooden objects were made and the specific names of wood types used for carving are discussed later. The museum acquires and documents wooden objects from different communities in the country. The study provides information on wooden objects preserved in the six stores and two galleries of Lagos Museum. It analysed some wooden objects representing various categories of forms and functions of ancient civilization. The wooden objects described their sociocultural significance to places of origin in times past. The interviews conducted provided insight into methods and techniques used by the workers to conserve these wooden objects in the museum.
Location and Structure of the Museum

The land for the National Museum Lagos was acquired with the extension covering three acres (11664 m²), which extends to the National Hall of the House of Representatives (Bello, personal communication 2012; Fagg 1963). Its land also includes the City Shopping Mall complex currently under lease agreement to private investors for business (Otuka, personal communication 2012). The museum has samples of almost every type of artefact from different communities in Nigeria. Lagos Museum prepares most national and international exhibitions by its team of curators and conservators (Momoh, personal communication 2008). The work of preventive conservation is given to the best and experienced hands in the country whenever special exhibition is required. Sometimes, experts and best hands in museum conservation are invited to prepare wooden objects for exhibition in order to stabilize their condition before they are mounted for exhibition (Yakub, personal communication 2009).

The professional segments of the museum are arms where workers have direct contact with the maintenance of cultural objects that are preserved in the museum. These sections include curatorial, documentation, conservation, exhibition, technical, archaeologists, ethnographers, education officers and photography units. People in these units ensure good storage, proper exhibition, maintenance, survival and safety of the cultural objects preserved in the museum. Other features in the Lagos Museum compound include the structure preserving the vehicle of the late Head of State, Lt. Gen. Murtala Mohammed, who was assassinated on February 13, 1976. There is also the export permit office that clears people who wish to take Nigerian artwork outside the country. The essence of the export permit office is to issue the clearance certificate after a piece of artwork has been certified not to be an antiquity; otherwise, it will be impounded at the airport.

Inventory of the Lagos Museum Cultural Objects

Inventory is very important in the museum organisation. It is a periodic exercise carried out by museum workers to ascertain the actual number of museum cultural objects. Workers are assigned to take inventory to ascertain the actual number of museum cultural objects. Workers are assigned to take inventory of cultural objects in the museum. Inventory in the museum is to take detailed accounts of every item that is preserved in the museum. It is also to have an idea of the contents of cultural heritage in the museum. The last inventory carried out in the museum took place in 2008. The result of this inventory exercise put the total number of objects and materials as over 45000 (Table 1). It is important that a museum takes inventory of its collections from time to time. The inventory was carried out by a team of curators, conservators, conservation technologists and documentation officers under the monitoring guard of the security men. Cultural objects were sorted out first by their medium of production in each of the six stores and galleries of the museum. Thereafter, the numbers were counted and listed against the material of production. The exercise was to know how many wooden, metal and bronze objects were in the museum’s collections.

Table 1 illustrates that there are 45462 cultural objects made of different materials and these are also made into different shapes and sizes in order to suit the functions they were designed to serve. An overview of the collections summary reveals the following number of objects in the stores: Store 1: 4477; Store 2: 14087; Store 3: 2081; Store 4: 11020; Store 5: 10716; and Store 6: 2101. There are also objects termed ‘awaiting purchase’ (cultural objects yet to be bought by the museum) – 293; Courtyard (museum compound) Exhibition – 113; Temporary (time framed) Exhibition – 311; and objects in the Symbol of Power Gallery – 263.

Oko (personal communication 2011) notes that it is good to take inventory of museum objects from time to time in order to ascertain a good record of cultural objects and materials in the museum. He adds that Lagos Museum had the last inventory exercise in the year 2008 and has not conducted another one since then. Oko (personal communication 2011)
<table>
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<td><strong>Total</strong></td>
<td><strong>14087</strong></td>
<td><strong>Total</strong></td>
<td><strong>2081</strong></td>
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| Store 4                      |       | Store 5                       |       | Store 6                       |       |
| Door panels                 | 4080  | Wooden Ere Ibeji              | 3650  | Bronze                        | 729   |
| House posts                 | 1481  | (twin figure)                 |       | Beads                         | 803   |
| Wooden stools               | 578   | Wooden objects                | 2435  | Stone                         | 207   |
| Other materials             | 4881  | Esu wooden figure             | 140   | Others                        | 362   |
|                             |       | Calabashes                   | 1091  |                              |       |
|                             |       | Textiles                     | 1581  |                              |       |
|                             |       | Ivory                        | 572   |                              |       |
|                             |       | Terracotta                   | 1247  |                              |       |
| **Total**                   | **11020** | **Total**                   | **10716** | **Total**                   | **2101** |

**Summary**

| Store 1          | 4477 | Awaiting purchase | 293 |
| Store 2          | 14087| Courtyard Exhibition| 113 |
| Store 3          | 2081 | Temporary Exhibition| 311 |
| Store 4          | 11020| Symbol of power gallery| 263 |
| Store 5          | 10716|                   |     |
| Store 6          | 2101 |                   |     |
| **Total**        | **44482** | **Total**       | **980** |

**Table 1:** Objects and materials in the museum during 2008 inventory.
says inventory in a place like Lagos Museum is tedious and expensive and that is why it does not take place often.

**Organisation of Ethnographic Store in Lagos Museum**

According to Yakub (personal communication 2009), in the conservation of cultural objects, the museum store is an important segment where objects that are not being featured in exhibitions are preserved. National Museum Lagos has six stores for over 45000 collections, which include wooden and other collections (metal, bronze, ivory, textiles, leather, manilas, and raffia among others) (Table 1). We were informed that the museum has the largest number of collections in Nigeria. This is because objects from almost every part of the country are duly represented in its stores. Five out of the six stores contain 24850 cultural wooden objects. As a matter of fact, wooden objects constitute the largest percentage of the entire museum collections. This might be due to availability of wooden plants in the environment of the western region in which the museum is sited.

There are six ethnographic stores in the National Museum Lagos. The museum store is where all cultural objects that are not being featured in exhibition are kept. The essence of keeping excess or not currently exhibited objects in the store is to protect them from hazards, such as direct sunlight, heat or dust that may cause irreparable damage to wooden and other objects.

The six ethnographic stores in the Museum are furnished with shelves on which many cultural objects of the museum are arranged. Each shelf is further divided into segments of two and three levels, depending on the type of shelf. Storage of cultural objects in the various stores is by their medium, subject and size.

**Cultural Objects at the Documentation Unit**

The record of objects in the documentation unit of National Museum Lagos shows that there are over 45000 pieces of objects made from different materials in its stores and galleries (Table 1). They are preserved in the six stores and two main exhibition galleries of the museum. Findings in both museums revealed that objects of different materials were preserved in the same store rooms. The documentation unit keeps the cultural objects record book that is the Museum Day Book. According to Adediran (2012) the requirements of a good documentation system of a museum are the (a) day book (b) accession register (c) catalogue cards and (d) ledger for the storage. Documentation in the Lagos Museum involves taking inventory of all objects contained therein. It helps to take stock of all collections in the stores, galleries and courtyards. The process may be done manually but must be transferred to the electronic form later.

- The Day Book is a record or book that is opened for an object upon arrival in the museum. Every object was entered into a day book as it was acquired, with as much of the required information on the object as possible. Preventive conservation in the stores of Lagos Museum starts with the registration of wooden and other objects before they are accepted into the store for preservation. Detailed identity of an object is taken and recorded by the museum documentation officers. This detail includes object’s name, origin, maker and medium of production.
- Accessioning is the formal acceptance of acquisition into the museum collection. Every object meant to be kept in the museum must be entered in the Accession Register. The Accession Register is kept in a safe place in the museum, preferably a fire-proof cabinet. Functions of the Accession Register are to: (i) assign a unique number to each cultural object in the museum, (ii) describe the object under preventive conservation, and (iii) give detailed history and provenance of
cultural objects in the museum.

- The Catalogue Card is a complete record of everything that is known about every object in the museum’s collections. Various types of useful information about an object is written on the Catalogue Card, such as (i) name of museum (ii) object’s identification number, (iii) name of object-classification, (iv) entry method (donation, fund, purchase or lender), (v) source of entry (donor, vendor or lender), (vi) date of entry, and (vii) history of object. Cataloguing is to record the full scholarly information about an object. There may be a need for additional information which is contained in the Object Information File; this may include invoices, receipts, letters, newspaper cuttings, conservator’s report, photographs, excavator’s notes, and so on.

- Ledger - this is a book in which all cultural objects are regularly recorded, especially activities surrounding the object’s movement in and out of the museum. Our investigation revealed that over 45462 objects and materials were documented by the above four means of documentation systems in the Lagos Museum (see Table 1 for breakdown). The collections are kept in the six stores in which all objects not exhibited are preserved. The documentation units keep all records of collection in the museum’s Day Book.

**Space Management in Lagos Museum**

During the study, the conservator informed us of the reasons why many objects are preserved in the store and not displayed in the gallery for exhibition. Elumade (personal communication 2008) asserted that exhibition of collections inside the galleries is quite expensive to display and maintain. She stressed further that the conditions needed for the objects appearance and maintenance must be guaranteed during the exhibition. According to Adewebi (personal communication 2008), exhibition amounts to changing the environment of an object and as such wooden objects must be conditioned properly to adapt to the new exhibition environment. To obtain this goal, a lot of materials and equipment are required, which the museum authority cannot instantaneously provide for all the objects. Because of this, they are better preserved in the store to be monitored and given proper preventive conservation treatment against deterioration (Yakub, personal communication 2008).

There are six stores in the Lagos museum that keep all media of cultural heritage, that is wooden, metal and bronze objects, among other. In all the stores are shelves on which cultural objects are arranged. There are many objects in each of the stores. Due to shortage of space, some of the objects are not shelved but they lie on the floor. There is also not enough passage for workers and researchers to walk freely in the storeroom especially in stores 2 and 6. The problem of space will be solved when the museum is able to work out its collections in relation to the available storage units. Volume \((m^3) = \text{length} (m) \times \text{width} (m) \times \text{height} (m)\). This consideration will allow breathing space for the objects and also give workers easy access to objects and the opportunity to walk freely in the store.

**Preventive Conservation of Wooden Objects in the Museum’s Stores**

In the course of our questions and answers with the museum workers, it was discovered that workers at the conservation unit of the National Museum Lagos receive training continually on the preventive methods of conservation of museum objects. They adhere strictly to these scientific methods of preventive conservation. For example, preventive modern method of conservation rules frowns upon the use of chemicals to spray stores because research has proved that most chemicals are injurious to wooden objects. Petrochemical substances have been acclaimed to be contributory factors to physical weakness of wooden objects over time (Otuka, personal communication 2012). Lagos Museum conservators were taught how to use modern methods, such
as the blund trap (designed by the British Museum) and freezing techniques to kill insect and rodents, instead of using petrochemical substances.

Preventive conservation in the Lagos museum also forbids the use of rugs and carpets in the store because they aid insect pests. Whenever it is time to clean the floor of the store, the vacuum cleaner is used to avoid dust flying everywhere. Cleaning of wooden objects is done with the air-blower that has a regulatory device to set the force to high or low with respect to whether the wooden object is large or small. The conservators also use hand brushes to clean dust from wooden objects. Other methods of preventive conservation used in the museum include: cleaning with soft cotton textiles and brushes; mopping; and using a hoover vacuum and nozzle air-blowers with the aid of a net in the case of delicate objects that have ornaments or heavy decorations. Wooden objects are to be handled wearing gloves (rubber, cotton, surgical) whenever conservators are working with them. Cotton gloves are not to be worn to carry wooden or terracotta objects because the strands of the cotton can break the patterns on the objects.

Compatibility of Different Media in the Same Store

We observed that some cultural objects of different media were stored together in the same store. We wondered how possible this could be if one must have good preservation of the entire museum collections. Momoh (personal communication 2009) noted that wooden and metal objects are compatible without any problem if they are preserved in the same store. Adewebi (personal communication 2009) also mentioned that some objects could co-exist with each other regardless of their medium of production. However, he maintained that the ideal situation is to store specific medium separately, if there is enough space. We also observed there was not enough space between one object and another in the store.

Going through the stores in Lagos Museum, we noticed that it does not necessarily mean that a particular medium of art production has to be preserved in a particular store. It was observed that some cultural objects of different media were stored together in the same store but on different shelves. We asked questions on how this affected good preservation of the entire museum collections. We observed that there was insufficient space between one object and another in the store because of the large numbers of objects in this museum.

It is expected that in an ideal situation there should be no overcrowding and pillaging of objects in museum stores. All cultural heritage is to be preserved in a particular store, free and independent of one another. It is advisable that no wooden object leans or piles on another object to avoid abrasion. We hope the management would consider building more storage rooms to preserve individual objects separately.

Exhibition in the Gallery and Courtyard of the Museum

Exhibition is meant to display cultural objects for people’s enjoyment and knowledge. There are five major avenues to view cultural object exhibitions in Lagos Museum that include galleries and the courtyard. We viewed exhibitions displayed in these venues and observed that stone sculptures were displayed in the compound. This might be as a result of the resilient nature of stone sculptures to survive many years in the open atmosphere. Baker/Ejagham stone figures number over 300 carved conical stones believed to represent ancestors of the Ekoi people of Cross River State. They were sculpted from a sandstone columnar boulder, which varies in shape from circular to rectangular in section (NCMM 1998, 2009; National Museum Lagos 2010). Some of these are preserved in Oron Museum, some in Lagos Museum and other national museums of unity in Nigeria.

The researcher was informed that Lagos Museum has organised over 110 exhibitions since its inception in the last three decades with an average of 6000 tourists visiting the museum yearly (Okon,
The museum has been able to hold onto many of the objects acquired and displayed overtime, without losing them to deterioration and theft. It is unusual to find different objects made from different media of production in the exhibition gallery. The theme of exhibition for each period suggests the choice of object that goes into exhibition. However, where wooden and metal objects are in the same exhibition, effort is made by the Exhibition Officer to keep spaces in between them; hence, they need different modes of conservation before and during exhibition. However, the ideal situation in an exhibition is to have different sections for each medium of production in the same gallery (Okon, personal communication 2012).

This study identified a need for more exhibition galleries to display more objects in the museum for viewers. The provision of more galleries does not mean all collections should be displayed at once, rather, it is to allow more objects from the store to be displayed. More wooden objects would be exhibited if the exhibition galleries increase. With the number of objects that are in the stores of the museum, every material cannot and is not expected to be exhibited at once. To display all the objects at once keeps visitors away when there are no new objects to learn from. In the light of this, the museum has adopted a method of changing the theme and objects of exhibition in order to impact new knowledge to the public about Nigeria’s cultural heritage. This practice has given the opportunity for some wooden objects to receive special conservation treatment because they were featured in a recent exhibition. Every object exhibited is given special conservation treatment before the exhibition that makes them adapt to a new environment outside the store.

However, exhibition in the museum galleries are either temporary or permanent. Most exhibitions in the Lagos Museum galleries are staged for as long as six months, one year, two years and even more. Expiration of a staged exhibition depends on the management decision and the message it is meant to pass across to the public. The essence of exhibition is to give an overview of a variety of historical objects in a museum. Exhibition in the Lagos Museum is to showcase the diversity of collections of artworks from the length and breadth of Nigerian culture. Most exhibitions staged in the Lagos Museum so far were targeted towards stimulating interest in the history and culture of Nigeria’s great artistic traditions and ancient technological development of her people from the past to the present.

We, therefore, suggest that there should be more exhibitions in the museum. This will allow every object in the store to benefit from major preventive conservation care instead of general treatment.

Identification of Galleries in the National Museum Lagos

We identified five galleries in the National Museum Lagos. They are:

- **Symbol of Power Gallery.** This gallery displays objects of antiquity of socio-cultural settings from different cultural people in Nigeria. It displays kingship regalia, crowns, and staffs of office and war instruments that cut across various media of production such as beads, textiles, bronze, wood, metal, ivory and straw.

- **Benin Art Gallery.** It displays mainly objects of the ancient Benin Kingdom. Some of the objects include a bronze Benin chief’s head, a bronze equestrian figure, a bronze bell in the form of a human figure, ivory bangles, an ivory gong, ivory face-mask, ivory handcuff, ivory cup and ivory pendant that depicts the Oba of Benin with two palace attendants.

- **Gallery of Government of Yesterday, Today and Tomorrow.** It displays the car of the late Lieutenant General Murtala Mohammed who was assassinated on February 13th, 1976. The car was brought into the Lagos Museum in the 1980s for preservation from the former Federal Secretariat, Ikoyi around the scene of the assassination. The car was abandoned for a number of years after the incident, before it was later brought to the museum to be
preserved as historical evidence (Busari, personal communication 2012). This gallery also displays photographs of past Nigerian Heads of State and Presidents from independence to the present government.

- **Gallery of Contemporary Art Exhibition.** It is open to any Nigerian contemporary artist who wishes to showcase his or her latest efforts/discoveries of their styles, medium and techniques of art. It also offers an avenue to sell their artwork and further launch them into the visual art scene in the country where art collectors will get to know and patronize them.

- **Courtyard/Open Exhibition in Lagos Museum Compound.** This is the museum environment where cultural objects can be displayed. Stone sculptures are mostly displayed in the museum compound, probably because stone work has the tendency to survive under light and water without much threat. Some of the items displayed in the courtyard are in the lobby and walkways where there are display cases that house delicate or fragile objects of various media.

There are five exhibition galleries in the National Museum, Lagos. There are over 600 cultural objects displayed in the Symbol of Power Gallery and more than 200 Benin art pieces displayed in the Benin art gallery. Every object displayed in these galleries cut across all media of art production.

### The Role of Conservators in the Lagos Museum

The study gathered some useful information from museum workers on how they carry out their work. In ensuring good conservation and to avoid loss or theft of objects, the workers register cultural objects’ names and identities in and out of the storage room in order to forestall misplacement. A Movement Record Book is open for an object to come into the store and whenever such object is required for exhibition or treatment outside the store, the purpose, place, date and time are usually recorded. Every wooden object also has a card attached to it; it states the store of location, shelf number and row. This is to facilitate the easy return of the object to its original place in the store for usual conservation.

- They handle and lift wooden objects with care from the shelf by wearing gloves. Wooden objects in the museum are meant to be carefully handled to avoid breakage or scratch against other objects. Wooden objects in the museum are also not to be carried with bare hands in order to avoid germs, contamination or infection from wet hands.

- They use window blinds and shutters on the windows to prevent dusty air. Lagos Museum workers emphasized the need for the use of window blinds to prevent dust and excessive ultra-violet light that damages wooden objects.

- They avoid water in the store to prevent a dampened floor. The use of water to wash or mop the floor is totally avoided. The best way to clean the stores and galleries is to use the hoover to suck-off every dust and dirt particle on the floor.

- They avoid food particles in order to prevent rats in the museum store. The conservators are not by any means allowed to eat or bring food substance into the store room. This is totally against the ethics of the profession. The reason is that food particles may attract rats and cockroaches into the store and can cause damage to wooden objects preserved in the store.

- They avoid the use of rugs in museum stores because it absorbs dust and it is also capable of storing moisture content which, in time, can bring about offensive odours. The conservators carry out daily routine checks of wooden objects in the store. This is to help detect any invasion of insect or rodents in the store. From such daily routine checks, they had detected some insects and rodent presence
and have prevented their recurrence.

*How They Conduct Routine Check-up of Collections.* We were informed that routine check-ups of collections simply means examining the general outlook of wooden objects and other materials in the museum stores. This involves a survey or walking around the store to observe conditions of wooden objects on the shelf, which the conservator called ‘routine’ or ‘daily check-up’. Normally the store is checked on a daily basis or at specific time intervals, known as ‘routine exercise’ by the conservators of the National Museum Lagos. This activity is carried out in order to detect invasions of termites, rodents, rats and leakages from the ceiling. This exercise includes checking the temperature of the store in order to regulate it to the most suitable condition for the collections. A thermometer gauge is used to monitor and position store atmosphere for proper conditions (Yakub, personal communication 2008). The exercise is to comb the store by going around to find out if any object is showing any trait of deterioration. The study discovered that the only way to detect this is when wooden objects give an indication of powdery or dusty particles on the shelf.

*How to Remove Infected Objects in the Store.* The researcher was taken through the process of removing and separating infected objects when there was an indication of spotted infection on any wooden object during routine check of the store. The conservator makes the move to salvage such situations by separating the infected objects from the shelves to stop further deterioration. The reason for separating infected objects from uninfected objects is to stop the spread of infection of pests to other objects (Elumade, personal communication 2008). According to her, one can best identify infected objects by carrying out the following steps:

- Go into the store and examine all wooden objects on the shelves, racks and drawers in order to detect any sign of dust, flakes, warp or cracks. The signs that are being looked for are noticeable from visible dropping of dust onto the shelves where objects are arranged. Detecting minute signs may involve lifting the objects or turning it around carefully in order to know the stability and fitness of a particular wooden object in storage.
- Whenever an infected wooden object is spotted, the name/title of the object should be written down and where it is located, such as the number of the shelf (in alphabetical classification: A, B, C; and the step of the shelf, step 1, 2, 3). A strip of masking tape should be affixed to the shelf for easy identification. Later on, the conservator should come around to collect the object for treatment at a scheduled period.
- The conservator should come back and gather all infected wooden objects for treatment. The type of infection will suggest the type of treatment required to bring it back to shape or stability. Consequently, the conservators spray the store-room occasionally to prevent the spread of infestation of the agent of deterioration.

**Summary Discussion and Conclusion**

The study observed some basic preventive conservation needs in Lagos Museum even as the workers try to make do with the available infrastructure. The National Museum Lagos certainly needs a modern conservation laboratory and equipment to detect the internal structure of wooden and other objects. The museum needs some potent chemicals to eradicate pests. Conservation freezers are needed to carry out the freezing technique to kill strong and stubborn pests. The modern museum techniques to eradicate pests are special refrigerators for freezing and blund traps to catch insects. When the trap is set and it catches an insect, the insect is taken to an etymologist to determine its type and what attracts it to the museum. The report of the test will further suggest the method of total eradication from the museum (Otuka, personal communication 2011).

It was observed that some of the materials and equipment in use are old and obsolete and can-
not address major problems of preventive conservation in the museum. The preventive conservation needs of the museum are many and workers need to have adequate tools to enhance good productivity.

The Lagos Museum needs more stores for storage of cultural heritage objects and galleries for exhibition of its objects. The provision of additional stores and galleries will bring about free passage. It will be necessary to sort out objects into categories and by media of production (wooden objects, bronze, metal, stone etc.). Each one should be sorted out according to its type.

New shelves in the stores are needed to take care of objects newly acquired by the museum, especially the padded type suitable for conservation of wooden objects. The museum also needs metal cabinets to keep wooden objects. Security alerts are also important to safeguard the lives of workers whenever they are at work. This could be an alarm system to aid quick evacuation of every worker in case of fire.

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<td>M</td>
<td>Principal curator</td>
<td>Lagos museum</td>
<td>2012</td>
</tr>
</tbody>
</table>

**Appendix 1:** Informants.