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Museology

INTRODUCTION TO MUSEOLOGY

DEFINITIONS OF TERMS

International Council of Museums (ICOM): A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.

TYPES OF MUSEUM

Museums are classified into five basic types. A new development, which transcends all types of museums by virtue of its unique electronic presentation, is described separately in the entry virtual museum.

General museums

Are museums which hold collections in more than one subject and are therefore sometimes known as multidisciplinary or interdisciplinary museums.

Responsibility /function

→ To reflect on the natural and human history.

→ To reflect on traditions of the society.

→ To encourage creative spirit of the area.

→ To provide opportunities at regional museums for the community to appreciate the wider aspects of the national or even international heritage.

Natural history and natural science museums

These are Museums which are concerned with the natural world their collections may contain specimens of birds, mammals, insects, plants, rocks, minerals, and fossils. their origins in the cabinets of curiosities built up by prominent individuals in Europe during the Renaissance and Enlightenment.

Major museums such as the Natural History Museum in London

Responsibility /function

→ To conserve natural history.

→ To encourage development of theories.

→ To present evidence for natural history.

→ To act as tourist attraction.

C.) **Science and technology museum**

These are Museums which are concerned with the development and application of scientific ideas and instrumentation. Like museums of natural science and natural history, science museums have their origins in the Enlightenment. Well-known examples of these are at the Deutsches Museum in Munich.

Responsibility /function

► The help in applications of science.

► to preserve the material evidence of technological and scientific endeavor.

► to concentrate on demonstrating science and its applications.

► their visitors to participate through demonstration models and interactive displays.

d.) History museums

history museum is often used for a wide variety of museums where collections are amassed and, in most cases, are presented to give a chronological perspective. Because of the encompassing nature of history, museums of this type may well hold so many objects of art and science that they would more properly be called general museums (see above General museums).

One example of the latter is the National Museum of History in Chapultepec Castle, Mexico City.

Responsibility /function

> where they have been used as a means of arousing national consciousness and providing historical perspective.
> for the purpose of communicating the images of actual persons.
> paintings and prints of people, as well as places and events.
> an important element in other types of history museums.

Art museums

The art museum (called art gallery in some places) is concerned primarily with the object as a means of unaided communication with its visitors. Aesthetic value is therefore a major consideration in accepting items for the collection. Traditionally these collections have comprised paintings, sculpture, and the decorative arts.

Responsibility /function

> To encourage good industrial design.
> To influence on certain forms of 20th-century art.
> For continued preservation.

Different types of museums based on their authorizing, managing and funding agencies or organisations:

1. Government - those museums that are established and run by local, regional, or national governmental agencies.

2. Private - museums funded and operated by individuals or private organisations, possibly for commercial profit.

3. Museums of not-for-profit foundations, trusts and societies (known as “independent museums” in Britain.

4. University museums attached to colleges or universities and usually established and maintained for the educational purposes of the university, though many have an important public role as well.

Study question/take home.

In groups of three discus Validity of museums submit representative in three days. your work to class representative in three days.

Evolution of museums

Encyclopaedic museums

It is in the encyclopedic spirit of the so-called European Enlightenment that public museums emerge.

The Ashmolean Museum, opened by the University of Oxford in 1683, is generally considered to be the first museum established by a public body for the public benefit. This was based largely on the eclectic collections, from many parts of the world, brought together by the Tradescant family and previously displayed to the public at their home in London. It was encyclopaedic in character and this is a feature of two other well-known museums of this early period: the British Museum, opened in London in 1759 and the Louvre, Paris, opened in 1793; both were government initiatives, the former resulting from the acquisition of three private collections and the latter from the "democratisation" of the royal collections.

Society museums

Learned societies were also among the early originators of public museums. This was particularly so in Asia. In Jakarta the collection of the Batavia Society of Arts and Science was begun in 1778, eventually to become the Central Museum of Indonesian Culture. The origins of the Indian Museum in Calcutta are similar, being based on the collections of the Asiatic Society of Bengal which commenced in 1784. Both museums covered the arts and sciences and were concerned with furthering knowledge about their respective countries. In the United States, the Charleston Library Society of South Carolina announced its intention in

1773 of forming a collection of the 'natural productions, either animal vegetable or mineral with a view to displaying the practical and commercial aspects of agriculture and medicine in the province.

National museums

Nineteenth century expressions of this role include the national museum in Budapest, which originated in 1802 and was built from money raised from voluntary taxes; it later became identified with the fight for Hungarian independence. In Prague a revival in nationalism led to the founding of the national museum in 1818 and its new building, not opened until 1891, became symbolic of the Czech national revival. Both initially housed collections from the arts and sciences but as the collections grew they were transferred to other buildings. In Hungary, for example, this led to the formation of specialized museums: Applied Arts, Fine Arts, National Culture and Natural Science.

Specialized museums

The concept of an encyclopaedic museum of national or global culture thus waned during the nineteenth century in favour of national museums of increasing specialisation. This was accentuated where museums were also viewed as vehicles for promoting industrial design and technical achievement. International exhibitions of manufactures contributed to the formation of a number of such specialised museums, including the Victoria and Albert Museum and Science Museum in London, the Technisches Museum, Vienna and the Palais de la Decouverte in Paris.

General and local museums

The encyclopaedic idea, expressed now in general museums, remains a characteristic of many regional and local museums. These developed from the collections of private benefactors and societies particularly from the mid-nineteenth century. Where they were established at a port or other centre for international trade, the collections often reflected the global nature of this. These local and regional museums also had a role in promoting civic pride.

Open Air museums

A new type of museum emerged in Sweden in 1872 to preserve aspects of the traditional folk-life of the nation with the creation of the Nordiska Museet at Stockholm. This was extended to collecting traditional buildings which were then re-erected at Skansen, the first open air museum. A variation to this theme has appeared in Nigeria where much of the traditional

architecture is too fragile to move. Instead, craftsmen builders have been brought to the Museum of Traditional Architecture at Jos to erect examples of buildings representative of different parts of Nigeria.

Working museums

Other museums have developed workshops where traditional crafts can be demonstrated and sometimes exploited commercially for the benefit of the museum. Elsewhere workshops and industrial sites have been preserved in situ and restored to their former working

MANAGEMENT OF MUSEUMS

Effective museum management is a responsibility that embraces all the resources and activities of the museum, and involves all the staff. It is a necessary element in the development and advancement of a museum. Without proper management, a museum cannot provide the appropriate care and use for collections, nor can it maintain and support an effective exhibition and education programme

Key aspects of good management are:

(1) selecting the right personnel for the job,

(2) determining the work to be done,

(3) deciding the way the work is to be accomplished, and

(4) managing the relationship between the persons doing the work and the other elements of the museum collections, or visitorship.

To better understand the museum management process, it may be important to gain greater insight into the way museums operate, and in particular who or what authorizes the museum and to whom do they report

MUSEUM COLLECTION

A collection may be defined as a set of material or intangible objects (works, artefacts, menterfacts, specimens, archive documents, testimonies etc. They all contain large numbers of individual items, many different kinds of objects, specimens, artworks, documents, and artefacts, and all are representative of the “natural, cultural, and scientific heritage”

Collections management procedures

Collections management procedures are the various activities by which collections management policies are converted into specific management actions.

(MUSEUM ACTIVITIES)

1.Registration

Museum registration is concerned with the policies and procedure by which collections are acquired and subjects formally entered into the register of the holding of the museum, and how they are managed, tracked, and sometimes even disposed of after that point.

2.Acquisition and Accessioning

Acquisition is the process of obtaining an object or collection for the museum. Objects can be acquired in many different ways, such as from fieldwork, as a donation or bequest, or as a transfer from another institution.

Accessioning is the formal acceptance of an object or collection, recording it into the register of a museum, and incorporating it into the museum's collections. Accessioning is initiated by receipt of documents that transfer title.

3. Deaccessioning and Disposals

Deaccessioning is the process of permanently removing objects from the museum register and collections. It is carried out for a variety of reasons, from refining the focus of the collection, to repatriation of objects, to removal of unsalvageable. Because museums fulfil a public trust, deaccessioning can be controversial

Disposal is the act of physically removing deaccessioned collections objects from the museum and relocating them elsewhere. Depending on applicable law, disposal options may include transfer to another museum or similar institution for educational purposes, physical destruction of deteriorated objects, and restitution to another group or people.

4.Cataloguing, numbering, and marking

Cataloguing is the process of identifying in descriptive detail each collections object and assigning it a unique identifying number. All objects in the permanent collections should be catalogued. Catalogue information should include descriptive details, classification or other identification, physical dimensions, provenance

Numbering and marking of objects in the collection

Numbering and marking collections is the process of associating a unique identifying number with a collections object and marking or labelling the object with that number. The number may be an accession number or a catalogue number. It is done so that objects can uniquely be identified. The marking method must be permanent so that the number does not wear off, yet be reversible so that it can be removed if necessary. A number can then be written in pencil on the enclosing material.

5. Loans

Loans are the temporary removal or reassignment of an object or collection from its normal ownership or location. An incoming loan is borrowed by the museum from a lender - its owner or other normal holder, which can be another museum or an individual. It involves a change of location of objects and collections but not of title (legal ownership).

6.Condition Reports

The Condition Report is a document composed of a written and visual description of an object’s appearance, state of preservation, and any defects, at a particular point in time. The report should include the object's accession or catalogue number, composition, type, location, and extent of damage, previous repairs, name of examine and date of examination.

7.Documentation

Documentation is a crucial part of collections management overall which includes detailed advice on documentation policy and procedures.

PRESERVATION OF COLLECTIONS

Collections Storage(equipment storage)

Collections storage refers to the physical space where collections are housed when not on exhibition or being researched. The term is also used to describe the various kinds of furniture, equipment, methods and materials that are used in the spaces used for the museum's storage and study collections.

Recommended storage materials include

acid-free, lignin-free tags, labels, papers, folders, envelopes, boards, boxes, and tubes that are calcium carbonate buffered cotton, linen, and

polyester fabrics, tapes, cords, and threads; polyester batting and films; polyethylene and polypropylene bags, microfoam boxes, and boards; cellulose adhesive; polyvinyl acetate and acetone adhesive; and glass jars and vials with polypropylene or polyethylene caps. It is however important to avoid materials that are chemically unstable and which may therefore interact chemically with the objects they are in contact with and cause damage. These include wood and wood products, particularly acidic paper and cardboard, cellophane and masking tapes, adhesive tapes, foam rubber and urethanefoam, most plastics, nail polish, metal paper clips and staples, rubber bands and rubber-based glues. If unstable materials such as wood shelving have to be used, a stable barrier material such as acid-free board can be placed between the shelf and the objects.

Handling and moving collections

Collections are at increased risk of damage while they are being handled and moved. However, there has to be a balance between protection and preservation since it would be very hard to study, exhibit or otherwise use museum specimens and collections if they cannot be handled at all. To prevent damage it is essential to be very careful and use common sense when handling objects of any size and type. Some very simple precautions can much reduce this risk. All objects should be handled as if they are the most valuable, and hands must be clean or protected by clean cotton or nitride gloves. When moving items, determine where an object will be put down before it is picked up, and plan the route to be taken ahead of time to be sure it is free from obstructions. Carry one object at a time, or place objects on a padded tray or cart if many need to be moved over any distance.

Allow plenty of time and get help if the object is too large or heavy to be easily moved by one person. Never risk your own safety, or the safety of the object.

Photography

Photography is an integral and specialized part of the documentation of museum collections. A photograph is not only a visual record of an object but also aids in research, education, and retrieval of an object if it is misplaced and as evidence in support of an insurance claim if something is lost or stolen.

Insurance

Insurance of collections is generally regarded as an integral part of risk management, which is a term used to describe the process of reducing the likelihood of damage or loss of collections by eliminating or at least minimizing hazards the aim of the insurance that is purchased is to provide sufficient monetary compensation to repair or replace the collections in the event of their damage or loss.

CONSERVATION OF THE COLLECTIONS.

Preparing for Disasters

Disaster preparedness and response are also very important parts of the overall collections management responsibilities. It should however be stressed here that the aim should be to ensure that preparing prevents as far as possible emergency situations, whether due to natural disasters, civil emergencies such as fire, or the effects of armed conflict, but does not lead to the loss of or serious damage to the museum collections.

Necessary preparedness measures include

- risk assessment,
- good planning and design of buildings,
- furniture,
- equipment and systems.
- effective routine building systems inspections.
- Preventive maintenance.

Effective emergency preparedness should be based on a written plan that is tested and evaluated at least once a year, and which addresses measures to be taken before, during, and after any emergency

Display and Exhibition or Galleries and Rooms

There are several different types of museum exhibitions.

They may be short or long-term exhibits of objects from the museum's collections, exhibits containing objects on loan from other institutions, or travelling exhibits.

Monitoring collections on exhibition

Exhibit galleries should be inspected on a regular basis for any evidence of damage to or loss of objects on exhibit. Environmental control is achieved in a variety of ways with a variety of mechanical and manual systems.

Suitable exhibit materials.

The materials that are safe to use in collections storage are also safe to use in exhibit fabrication and presentation. Many materials used in exhibit fabrication are not archival in composition but are commonly used due to their other desirable characteristics and low cost.

Packing and shipping

Suitable packing materials are the same as those used for storage of collections. Although urethane foam is not archival, it often is used in packing objects because of its excellent cushioning properties.

The shipping method chosen should provide the best protection for the objects and shortest the route time. Common shipping methods for museum objects are by road and by air.

Rail shipment is used less frequently due to the increased shock and vibration associated with this method. Shipping by sea sometimes is used for very large and stable objects, but transit time often is very lengthy and it can be difficult to provide long-term climate control in a shipping container. Transportation companies that have experience with transporting museum collections can provide valuable assistance in planning to ship museum collections.

TYPES OF DISPLAYS

Permanent Exhibitions.

these are planned as part of a core concept structure, storyline or discourse within a museum. Or “core” exhibitions. In fact, nowadays there are a number of mainly smaller sized museums that do not have or aim to have “permanent” exhibitions, but instead take the opportunity to present different themes and collections using longer-term exhibitions that may last perhaps one to three years,

Temporary Exhibition.

Belcher divides these into “short term”, that last from one to three months, "medium term”: three to six months; and “long-term” which are expected to last for an indefinite period. Medium term or longer-term exhibitions can be very successful. They do not have the constraint of needing to follow the museum's overall display policy and storyline, and they offer visitors the chance to see something new within a specific time span. In terms of design, they may use more contemporary and innovative materials and presentation systems, indulge in more attractive and fashionable solutions, but without diminishing the object.

Travelling Exhibitions

This very wide category also includes exhibitions that are designed and circulated in buses, trucks or trains. national travelling exhibition service, which takes exhibitions of all sizes to many locations throughout the country. In general, travelling exhibitions aim to offer the opportunity to see them to a greater and more diverse population, in different locations. Because of its nature, the design of the travelling exhibition needs to take several issues into account, including the need for flexibility in terms of layout, etc., so that it can be fitted into different sizes and shapes of exhibition gallery, and ease of erection, maintenance and mounting and dismounting, as well as ease of transportation between venues.

ORGANISATIONAL STRUCTURE

Management Structure

A crucial matter for management is to document the structure under which the museum is authorized, governed, and supported. Often the management structure is based on previous practices but lacks clear documentation

Most museums have a management structure that includes at least three components−administration curation, and operations. All elements of the museum may be the responsibilities of one person, or they may accommodate many people. This tri-parted organizational structure allows distribution of various tasks. It can be expanded to facilitate increased activities while maintaining direct lines of communication and an easily.

1. Hierarchical Organizational Structure

This places the director/manager just below the govering authority and the rest of the museum staff below. The “top down” structure has few members of the staff reporting directly to the director/manager. There are only two persons in “middle” management positions.

2. horizontal organizational structure

This places the director/manager just below the governing authority. It increases the number of staff having direct access to the director/manager, and consequently increases the number of persons in “middle” management positions. comprehendible reporting procedure. Budget oversight, fund raising, and public relations, and marketing are often. In the most common organizational structure, the governing authority is at the top with the director/manager immediately following. The rest of the staff is arranged below according to their relationship with the primary divisions of the museum.

► Hierarchic Structure

This arrangement is known as a hierarchic structure that can result in an authoritative or top down approach to institutional management.

► Horizontal Structure

A second arrangement often called a horizontal structure spreads the line of contact with the director/manager to give all staff equal access.

► matrix structure.

Staff, particularly senior staff, are given both “vertical” responsibility for a particular academic or other professional specialisation and its staff as usual. But then in addition they have responsibility for managing a special theme which cuts across all or most if the museum and its staff structure, probably through an interdisciplinary internal working group or committee.

INVENTORIES AND DOCUMENTATION

Accurate and accessible documentation is an essential resource for collections management, research and public services.

Acquisitions, long-term loans and accessioning

The accessioning process is a key stage in the overall documentation of the collection the museum should maintain an accession register, with a

checklist of all the acquisitions. The register should ideally be a hardback volume, with archival quality paper. It should have columns for accession number, date, source, method, brief description of the group, number of objects making up the group and the name or initials of the museum curator. If the loan is approved, it should be finalized in a written loan agreement, which should then be kept on file. The loan should be added to a separate loan number sequence.

Inventory control and cataloguing

The second stage in the museum's documentation system is the development and use of information about the individual objects in the collection. The museum should aim to establish records about each of the items in the collection and continue to extend these records as the objects are examined and used. The records can be used as the basis for research, public access, display, education, collection development, collections management and security. In order to support this range of uses, the records need to be consistently structured into discrete categories or fields, each of which can hold a specific piece of information.

Syntax and terminology

It is important that the museum adopts a consistent syntax and terminology for the entries in the fields. Syntax rules define the way the information in the field is structured. Terminology rules define the terms that are allowed in a field. The museum's decisions on syntax and terminology should also be incorporated in the internal cataloguing handbook.

One example of syntax control is the style used for recording personal and organizational names. The standard approach for personal names written in the roman alphabet is to place the surname first, followed by a comma then the initials or forenames (e.g. ‘Smith, John').

Object numbering, labelling and marking

It is important to assign a unique number to each object and to relate this to the object by either writing it on a label associated with the object or marking it on the object itself (International Council of Museums. International Committee for Documentation, 1994). The object number provides the link between the object and its documentation and can be invaluable if the object is stolen or misplaced. If the museum follows the approach of using group accession numbers, the object number may be a subset of the group number or independent of the group number. The number must be unique within the museum: if similar numbers are used by two or more departments or within two or more collections, prefix each

number with a code to make the overall number unique. In the case of an excavated object, the museum should decide whether it is possible to use the number assigned at the time of excavation, or whether to establish a separate object number.

Location and movement control

It is essential that all changes of storage location are carefully tracked. The recommended catalogue fields include separate Normal location is the long-term location of the object, such as a storage area or gallery, while the Current location is where the object is currently held, such as in a conservation area or on loan to another museum. The current location should be updated each time the object is moved, together with the date, the reason and the responsible person. The museum must take special care to ensure that the information about the location of a particular object or collection is kept secure. This information can be of great assistance to criminals considering raiding the museum.

Conservation information and condition reports

If the object is conserved, a reference to the conservation work should be incorporated in the catalogue record. If there are fuller details about the process, it may be most efficient to hold these in a separate file, linked to the catalogue record via a Conservation Reference Number. Similarly, if a condition report is produced about the object, note the condition status and date in the catalogue record and keep a full condition report on file (see the Collections Management chapter).

Images produced during conservation work and when preparing condition reports should be retained by the museum. These can be linked to the object record.

Deaccessioning and disposal

If the object is removed from the collection, it is essential that information about the removal is added to the catalogue record. The overall catalogue record should be retained, so that the museum has evidence of the fate of the object. As with a new acquisition, the proposed de-acquisition should be referred to an internal committee for approval (see the Collections Management chapter).

Backlog accessioning, inventory control and cataloguing

The starting point for the backlog project should be a review of the history and scope of the collection This should include a description of the main groups within the museum, including individual collections and major

acquisitions. It should also describe the available information, such as the extent of accession and catalogue records and files, the depth of information, the use of manual and computer approaches, etc. This can be a time-consuming exercise in a museum with a substantial collection, but is an essential step in bringing the collection under control. The stores-based work should consist of a systematic check of each object in the store and the development of a record about the object. If the museum does have existing records, these can be used as the second source for the backlog

project.

In addition to the catalogue records, it may be necessary to establish new accession files. If the museum is not sure whether individual collections are acquisitions or long term loans or the duration of loans, it may be necessary to contact the original source for clarification. This can be a sensitive issue, as it carries the risk that some sources may ask for the return of the objects, but it is a necessary step in validating the status of the collection.

Manual and computer-based cataloguing and retrieval

The catalogue information can either be recorded in a manual system or a computer-based system. The preferred approach depends on the museum's expertise and resources. The most effective approach in a manual system is to design record cards or sheets, with spaces for the different fields. The master copies of these records can then be stored in Object Number order, as the primary authority about the collection. If the museum has a number of different subject areas, it may be useful to produce separate designs for each of the main areas. The museum should also maintain indexes to the most useful and frequently consulted information, such as Current Location, Object Name, Producer, Production Period/Date and Collection Place.

A computer cataloguing system stores information and images about the objects in the collection in a more flexible format than a manual

The more substantial museum applications include a number of modules, which support cataloguing, collections management and public access. If the museum decides to investigate these externally-developed applications, the functional analysis can be used as the basis for a statement of requirements

Images

Photographic images, digital images and scientific drawings of the collection are a valuable resource, both internal reference purposes and for use by researchers and the public. For example, they can be shown to law officers and customs officials and the media if an object is stolen and they can be added to the Web if the collection is put on-line. The recommended approach is to take an archival image and use this as the source for thumbnail and full-screen size derivative images. The archival image can be saved to off-line storage, while the smaller derivative files can be stored on-line. The preferred image format for archival images is TIFF and for reference images is JPEG. If the museum is using a computer-based cataloguing system, it should be possible to link the derivative images to the records, so that the thumbnail image displays as part of the catalogue record. The Image Reference Number provides the link between the image and the catalogue record.

Web access to the information about the collection

If the museum is developing computer-based records and digital images, this gives it the potential to provide access to information about its collections on the Web. Depending on the technical facilities and expertise available to this museum, this can be accomplished by providing on-line access to a public access module in the museum's cataloguing system or by copying information from the internal system into a specific Web application. The technical requirements can be assessed in parallel with the review of the computer system.

A key issue in considering a Web development is to identify the potential users and match the Web resource to their interest. The museum will need to consider whether its priority is on supporting researchers, the general public or education groups. The main interest of researchers is likely to be the flexibility to search and browse through detailed catalogue records and images. The public andeducation users may be more inspired by a combination of contextual information, images and basic catalogue information, such as the history of the collection and the ability to browse through its major themes. If the museum does decide to develop a Web-based catalogue, it may be worth discussing with other museums the

potential for a shared approach, such as a collaborative Web site and a national catalogue.

Staff and financial resources

One of the greatest costs associated with documentation is the work involved in developing records and particularly carrying out backlog cataloguing. In addition to the input by core staff, this type of work is very suitable for temporary project staff and volunteers, who can build up valuable skills. The second major budget issue is the cost of a computer system, including hardware and a cataloguing application, imaging facilities and potentially Web access services, and the regular replacement or updating of all of these. It will also be necessary to have a budget for consumables, including registers, forms and catalogue cards or sheets if using a manual system.

Sources and references

A number of international and national organisations have developed documentation principles over the last 30 years. These can be consulted for additional advice and support. The leading international body is the International Committee for Documentation of the International Council of Museums (ICOM-CIDOC).

Care and Preservation of Collections

STRATEGIES FOR PRESERVATION

1. **A reliable roof.** Reliable against local precipitation, covering all organic artefacts (and preferably most inorganic artefacts.) it applies to large objects, such as historic vehicles, or historic machines with paint. They cannot be expected to survive many years if exposed to sun and weather.

2. Reliable walls, windows and doors that block local weather, local pests, amateur thieves and vandals.

3. Reasonable order and cleanliness in storage and displays. It means keeping sufficient orde that objects are not crushing each other, that inspection and surveys are easy, that objects are raised off the floor, and that object retrieval is easy. It means sufficiently clean that pests are not given habitats, that metals do not accumulate corrosive dust, and that porous and difficult to clean artefacts are not soiled.

4. **An up-to-date catalogue of the collections**, with location of artefacts, and photographs at least adequate for identification of the object if stolen, and preferably adequate for identification of new damage.

5**. Inspection of collections on a regular basis,** in storage and in exhibits. This becomes especially important in museums that have limited resources for other strategies of preservation. The time period between inspections should be no less than the time it takes insect pests to mature from eggs (approximately 3 weeks for the clothes moth). Inspect not only for new damage, new signs of risks, but also for thefts.

6.**Bags, envelopes, or encapsulation used wherever necessary.** Except where other rigid boxes are already provided, this includes all small and fragile objects, all objects easily damaged by water, all objects easily attacked by local pollution, all objects easily attacked by insects. These enclosures must be at least dust-proof, preferably airtight, waterproof, pest resistant. Transparent polyethylene or polyester is the most reliable, such as food quality bags (e.g. “Zip-Loc” TM).

There is a large literature on details of these methods for textiles, archives, coins, etc.

7. Strong, inert backing boards for all delicate flat objects, to support, and to block many agents from behind. This includes manuscripts, paintings on canvas, paintings on paper and board, wall maps, stretched textiles, photographic prints, (both in storage and on display). For any that have front surfaces vulnerable to pollution or water or vandalism, provide protection by glass.

8. **Staff and volunteers are committed to preservation,** are informed and appropriately trained. Basic strategies that address a single agent that is a high risk to most or all of the collection

9. **Locks on all doors and windows.** These should be at least as secure as an average local home, and preferably much better.

10. **A detection system for thieves (human or electronic)** that has a response time less than the time it takes an amateur to break the locks or windows. If not possible, the most valuable artifacts are stored in another, more secure location, when the museum is unoccupied.

11. **An automatic fire suppression system,** i.e., sprinklers (or other modern systems). This can be considered non-critical only if absolutely all building materials and all collections are nonflammable, e.g., ceramic

collections in metal and glass cases in a masonry building with no wood joists.

12. **All problems of sustained damp are addressed quickly.** Damp is a rapid and aggressive agent, causing many risks, such as mould, corrosion, and gross distortion. Unlike fire, floods, and insects, it is so common it is often tolerated. The two usual sources of damp are small water leaks and condensation due to large changes in temperature drops (as at night). Move the collection away from the damp. Fix the water leak.

13. **Ventilate against condensation.** No intense light, no direct sunlight, no powerful electric light, on any coloured artefacts, unless one is sure the colour has zero sensitivity to light, e.g., fired ceramics, fired glass enamels

RECOVERY AND RESPONSE

Avoid sources and attractants

One can become specific. After insects clean-up those items, they look for more...in your building nearby. Garbage should be kept at least 20m away from the museum building, and emptied frequently. To repeat, often enter the museum in new artefacts, or building materials, and often the materials for open exhibit display. Thus another general principle of IPM: quarantine and then inspect all incoming materials, especially the same type of material as your most important or most common collections....wood for wood insects, wool for wool, etc.

Block pathways

The nested enclosures of the reliable walls, roof, doors, windows, of the “list of the basics”, all speak to IPM speaks of a “sanitary perimeter” around the building, which can be applied methodically around each layer of the nested enclosures. Insect screens on windows, while common in some parts of the world, are absent in many others. Any museum with especially vulnerable collections, such as woollen textiles, should consider screens on any open windows leading into those collections, and on any ventilation openings for the mechanical systems.

Such museums should at least consider the sanitary perimeter concept, i.e., a Im border of grass and shrub free gravel around the entire building, and special care with garbage removal.

Detect

systematic use of insect“ sticky traps”. Although sold to home owners as a means of killing insects, their use in museums is not for killing per se, but for detecting. These sticky traps are placed throughout the collections, especially along insect pathways (the dark edges of walls, etc) then inspected on a regular interval, perhaps once per month.

RESPOND

In brief, kill the pests. More precisely, find the infestation that has been detected by the sticky traps, or by routine inspection of the collections, or in the quarantined incoming material, and isolate it immediately, and gently. Dispersing adult insects throughout the collection by uncovering everything is not useful. Wrap in plastic to start, and seal well. There are several new methods of killing insects that museums need to know, which avoid poison. One group are called "atmospheres” or “anoxia” and rely on a bag filled with air that has no oxygen. The other methods are called “thermal” and use either very high, or very low temperatures. (Strang, 2001)The high temperature methods can use extremely low cost techniques, such as placing infested artefacts in black polyethylene in the sun for one day. This “solar” method is now well described in the collection preservation literature.

Integrated, sustainable risk management of lighting, pollutants, temperature, and humidity Risk management replaces rigid standards for the museum environment

Worked examples of the section Examples of specific risk assessments and individual solutions presented a risk assessment and risk reduction approach to issues such as lighting and humidity control. As noted at the beginning of this chapter, most preservation advice and guidelines use a much simpler approach, based on “best-practice” or “standards”. This is especially true of the last four agents of table 1, lighting, pollutants, incorrect temperature and incorrect humidity, known collectively as the “museum environment.” Simple rules are much easier to specify, but the price can become very high, and the benefits arbitrary.

Museum lighting guidelines

the recommended lighting level for light-sensitive textiles, water colours and manuscripts, while even young viewers cannot see complex or dark surfaces well at that lighting level. Many artefacts are not very sensitive to

light, and are kept in the dark for no good reason. Alternatively, one can decide to maintain the traditional rigid guideline, light all artefacts at a very low level, such as the 50 lux to 150 lux range, and accept the complications listed earlier.

Museum temperature and humidity guidelines

he standard in humidity and temperature advice was simple, and rigid: aim to achieve 21°C with 50% RH, and very little fluctuation permitted. This standard grew out of a concern for paintings and furniture in Europe, and was indeed beneficial to those collections. It was unnecessarily stringent for many collections, such as paintings, wooden artefacts, parchment, which were at serious risk only from damp and extreme dryness, or stone, ceramics, stable glass, and clean metals, which were at serious risk only from damp.

Also listed is the risk to chemically unstable archival materials whenever temperature near 21C is chosen.

Always keep artefacts sensitive to water or damp away from air conditioners. If you plan to install a new air-conditioner, monitor the before installing for some weeks or months if possible, and then monitor carefully after installing and operating the air-conditioner.

Museum pollutant guidelines

Airborne pollutants are gas, liquid, or solid contaminants carried by the air that are known to cause damage to objects. Traditional guidelines on museum pollutant specifications followed two lines of reasoning: natural levels don't appear very harmful, and, when in doubt, ask for the best available filtering systems.

Integrating management of all four agents

These four agents, pollutants, light/UV, incorrect temperature, and incorrect humidity, have many features in common, each of which suggests paths for integration. A All four are “scientific” agents of deterioration, the ones of modern knowledge. The preceding five agents (#1 to #5) are ancient in their understanding. B All four can be measured precisely by scientific instruments, or meters. In fact, unlike the preceding five ancient agents, their intensity is not easily estimated except by instruments. C All four are strongly associated with engineering and design of the building, and of exhibits and storage fittings. D All but light/UV move towards the artefact by air movement. E All but incorrect temperature can be blocked by thin, low-cost, even delicate materials.

TYPICAL RESPONSIBILITIES OF THE CURATOR/ COLLATORS.

Primarily the curator's duties are to:

1 Establish concept/deelop the idea.

2 Develop thematic and scientific script

3 Select objects or works of art and illustrations

4 Carry out or supervise necessary documentation

5 Write information panels and label content, and other written information

6 Advise designer in developing design storyboard

7 Supervise construction of support materials

8 Supervise installation or mounting of exhibition

9 Write the catalogue or guide.

DUTIES AND RESPONISBILITIES OF COLLATORS AND OPERATORS

1. Customer Services

a) Ensures that the needs of customers are determined, provided for and reviewed according to agreed procedures and including the special needs of people with disabilities.

b) Manages and develops the advisory work of the Section in relation to collection and information sources in response to enquiries from a wide range of customers.

c) Manages and develops a wide-ranging interpretative programme targeted on the needs of the customers, the Service and other associated organisations, utilizing the available resources to their best advantage

d) Oversees access to the use of collections and information resources by customers of all kinds through on-line (Web) systems, loans, visits and other means.

e) Contributes to visitor services initiatives as appropriate.

f) Maintains statistics on the use of object and information resources and enquiries generally.

2. **Maintains the Resource Base**

a) Responsible for the acquisition, preparation, conservation and documentation of specimens relating to the defined subject and collecting

area, and maintaining these collections in appropriate condition for their well-being and for customer access.

b) Responsible for the collection, storage, interpretation and evaluation of information relating to the museum's agreed geographical territory through fieldwork, research and other programmes.

c) Represents the interest of the Museum on a variety of local and national forums an in government enquiries as the need arises.

d) Develops fieldwork programs in conjunction with other relevant parts of the Museum and the government service.

e) Manages the Section library.

f) Produces fully researched texts relating to the subject and the collections for internal and external publication.

3. **Management Functions**

g) Plans and organises the work of the section, ensuring work programmes are completed to agreed schedules and outputs are achieved.

h) Contributes to income generation for the Service as appropriate.

i) Supports and contributes to appropriate training programmes. j) Supports the Service's quality assurance initiatives and encourage staff involvement. k) Any other duties commensurate with the grade of the post as instructed by the Director or Assistant Director.

ROLE OF SUPPORTIVE ORGANISATION

ROLE OF UNESCO IN MUSEUM DEVELOPMENT

UNESCO, the United Nations Educational, Scientific and Cultural Organisation, is a specialised agency of the United Nations system. The organisation was created more than a half century ago, with the mission to build the defenses of peace in the minds of men.

Thank You