

Touring the Pacific Survey Report

IS 244
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I. Executive summary or Abstract (A.Q)

The collection, Touring the Pacific, belonging to the Collecting Cultures Mobile Museum, is being considered for loan to the National Museum of the Philippines in Manila, Philippines. In order to assess the suitability of the collection for travel, we conducted a survey which evaluated all 34 items for structural integrity, deterioration, and suitability of storage medium, as well as to make recommendations for shipping and crating materials and display housing.

Prior to our work, the collection was partly catalogued with accession numbers and descriptions attached to approximately two-thirds of the collection. We assigned secondary accession numbers to all items in the collection to facilitate the creation of a comprehensive survey instrument. Accession number were assigned according to a standard that used the abbreviation “TP” representing the collection title, Touring the Pacific, a two digit number representing the object's categorization according to the Nomenclature 4.0 for Museum Cataloguing, and a two digit number distinguishing the item among the 34 objects in the collection. The survey instrument was created using an Excel spreadsheet to organize and review the data with the goal of making evidence based recommendations for the collection. Conclusions regarding the level of deterioration, acceptability of existing housings, and travel requirements will be included in the results and recommendations section of this report. Special attention was paid to deterioration that would impact storage, transport, or display modality recommendations, as well as condition notes aimed at ensuring the long term preservation of these items given its mobile and hand on nature.

For the purposes of the loan to the National Museum of the Philippines, we established that, with the application of recommended interventions and packing materials, all objects are suitable for loan to the institution. Objects deemed in unacceptable condition require intervention to prevent further damage during transport or display. An example of this is mildew remediation which is necessary before the object travels to a hot and humid climate where mildew is likely to proliferate. 15% of the objects surveyed fell into this unacceptable condition category. A further 32% of the objects were found to be in acceptable condition with interventions suggested but not required for loan. It was found that none of the existing object housings were suitable for transport and recommendations were made for each category of objects which should be implemented immediately. Recommendations for display housing take into account anticipated conditions within the hall at the National Museum of the Philippines and are made with the intentions of mitigating any risk of damage due to environmental exposure.

II. Collections summary (C.B & A.Q.)

This survey was conducted to evaluate the condition and suitability for loan of the Touring the Pacific archival collection. The collection contains thirty-four cultural objects from the Philippines, Indonesia, and Fiji. The collection is representative of cultural exports and goods related to the tourism economy of these islands. It consists primarily of decorative objects, garments, and dolls/ miniatures. The composition of these objects includes wood, coconut husk, other plant matter, shell, natural and synthetic textiles, various metals, and plastics. Though some objects are unhoused, most are housed in polyethylene food storage bags. Decorative mats are

rolled around cardboard tubes and sheathed with plastic bubble wrap or tissue paper. The objects, in their individual housings, are further housed in cardboard boxes.

The Touring the Pacific objects are a part of a larger collection within the Collecting Cultures Mobile Museum which provides cross cultural exposure and educational programming to youth in the greater Los Angeles area of California, United States. Their housing and condition are both reflective of their mobile and hands on use precedent. Though often travelling locally, the collection is being evaluated for an outward loan to the National Museum of the Philippines in Manila, Philippines. Los Angeles is located in a mediterranean climate and the National Museum of the Philippines is located in a hot and humid climate. This change should be taken into account when considering the suitability of this collection for travel. However, the collection is not consistently stored in a climate controlled environment and so is accustomed to fluctuations in both temperature and humidity. Fluctuations in humidity are likely to affect these objects due to the hygroscopic nature of plant fibers. Loose paint, as is present in several of the objects, will potentially be made worse by moisture absorption. Dust should be assessed and treated if suitable before travelling to a humid environment as moisture may make the dust affix to the objects. Most other damage noted is not likely to be worsened due to environmental change and in fact, objects suffering from damage due to being folded or tightly rolled in storage may benefit from the increased humidity and this could be taken into consideration when making display recommendations to the loan institution.

The housing of the objects is not suitable for transport and recommendation will be made in the results section of this report for more appropriate housing for both travel and long term storage upon return from loan. Recommendations with regard to supporting damaged elements as well as mounting location will also be made in this report. Considerations for the effect of UV light on natural materials and pigments will also be discussed.

III. Unique Numbering (W.B.)

The collection did not have a consistent existing accession numbering system in which each object was uniquely identifiable. To compensate for this, the survey report implements a new numbering system by which all 34 objects can be identified and categorised. This numbering system relies on three separate character and number groups combined with hyphens. Each of these three groups refers to a separate characteristic of the particular item with only one of the groups being unique. The first group is a character set to refer to the particular collection. In this case, "TP" is used to indicate that these are items in the "Touring the Pacific" collection. Next is a two digit number ranging from 01 to 10. These numbers correspond to the hierarchical categories used in Nomenclature 4.0 for Museum Cataloguing. The categories are listed in *Appendix II*.

Each of these categories can be further defined with reference to Nomenclature 4 and allows for swift categorization and identification of like objects by a glance at the survey number. The final group of numbers used in the system is a unique number from 1 to 34 which represents the count of objects in the collection. Each of the 34 objects will have the potential to be accounted for by referencing this last group within the numbering system. With these groups combined, each object will have a unique identifying number, an example being: TP-02-01. This numbering system would also be of value for long-term stewards as it can be modified to accommodate other collections and expanded for this particular collection without necessitating any of the fundamental groups in use.

IV. Survey instrument (W.B.)

The primary goal of this survey was to observe and document the condition of all 34 objects in the collection in order to make an informed recommendation as to the packing and transport of the collection from Los Angeles to the National Museum of the Philippines/National Museum of Anthropology. In addition to these reports, additional assessments and recommendations were made with regards to temporary conservation and display at the borrowing museum. A Microsoft Excel spreadsheet was created and organised to be used as the primary survey instrument. This document features a variety of concerns and integrates data input for quantitative and qualitative use. Some input fields relied on a drop-down menu of preselected terminology while other, often corresponding fields, were left for surveyors to fill-in while observing. A blank copy of the survey is provided in *Appendix I*.

By integrating the drop-down menus of predetermined, limiting options, surveyors were able to better match observations when viewing independently. Each term in the drop down menu was also placed in a table provided with the document to ensure usability and uniformity when conducting the survey should the drop-down menu functionality not be accessible. These tables are provided as “Sheet 2” in the survey document and can be located in *Appendix I*. The fields containing these drop-down menus are described below as well as any corresponding free response categories.

The “Origin” field is provided from a drop-down menu to ensure surveyors limit items to the appropriate origin location as listed on collection item labels. “Unspecified” is an option also provided as one object didn’t have an origin listed. Nomenclature 4.0 for Museum Cataloguing was implemented in multiple areas including the previously mentioned unique numbering system and the survey’s “Object Type” field. This section is useful in understanding where and how the object fits into the collection and provides a general starting point in devising a display plan for each object in the collection. These selections are further explained and provided in *Appendix II*. “Observed Material” is a field where surveyors select the materials they can identify by observation. When additional material was identified, a name and description of the material was agreed upon by surveyors and the name was added to the corresponding table in “Sheet 2” which then added the name of the material to the drop-down menu. This process ensured consistent naming of material by varying surveyors. All material types and descriptions, where necessary, are listed in *Appendix II*.

The Field “Material Type” defines the type of material makeup of an object as organic, inorganic, or composite. This field is useful in assessing potentials for deterioration in both transportation and display of the objects. A more detailed description of this field and its categories is listed under *Appendix II*. “Damage & Deterioration Type” allows surveyors to select any forms of damage observed for each object. This section is limited to the terms in the corresponding table on “Sheet 2” and are further listed and described in *Appendix II*. “Current Condition Assessment” is another limited section for surveyors to fill-out in which the condition is defined as either “good,” “acceptable,” or “unacceptable.” Each of these is detailed in *Appendix II* and, in conjunction with the previously mentioned section on deterioration, is further expanded upon by surveyors in the following “Current Condition Detail or Recommendation” field which allows for free response in which best recommendations or instructions are given and explained based on the other assessments.

The rest of the fields focus more directly on the physical packing and transportation of objects as well as recommended display. Dimensions are given for the objects which had specific measurements defined in free response columns followed by one drop-down box category, “Sizing Notes for Packing.” This field limits responses to the terms “regular,” “irregular,” and “flat,” each of which is expanded upon further in *Appendix II*. This category is meant to inform the following recommendations for packaging methods and further decision making. The next drop-down category, “Original Housing Suitability for Transportation” is included with the intention of cutting-down on required packaging materials and, therefore, adding to the sustainability of the loan. However, it was determined with this collection that none of the original housings would be suitable for safe transportation. However, the options remain “yes” and “no” in “Sheet 2.” “Recommended Packaging Method” and “Recommended Display & Housing” are both drop-down categories with limited predetermined choices based on the commercial art packing and display companies being recommended for use. The input options are further expanded on in *Appendix III*.

“Individual Object Concerns” allows surveyors to choose from a list of environmental concerns that may cause damage and deterioration to the objects, individually, in transport and display in the Philippines. It is important to note that there are also general concerns directed at the collection as a whole since many of the objects are composed of the same materials. This is expanded on in *Appendix II*.

In completing this survey, a majority of the collection was surveyed with all three surveyors working together. One member was responsible for documenting the pre-existing labels and the observations of the two inspecting surveyors. The few remaining objects were assessed by solo surveyors inputting their own observations and the survey inputs reviewed again by another, remote, surveyor.

V. Results (C.B)

Our survey results recognized that most of the Touring the Pacific collection are made from natural materials such as wood and fibers. Since many of the collection’s objects are constructed with natural components, there is concern for damage and deterioration from natural elements and pests. Additionally, we found objects made with similar materials had similar damage and deterioration. On the condition that the objects are from a Mobile Museum collection, the current transportation of the objects is constructed for convenience, but the current storage is not ideal in preserving these objects produced from organic materials.

Many fabric materials had similar observations of wrinkling, due to housing folds and storage in polyethylene food bags, and fraying at the fiber’s edges. Correspondingly, objects made of plant fiber, like the “Tapa” cloths (TP-02-04 and TP-02-12), were observed to have folds and creasing. Unlike the fabric materials, the “Tapa” cloths are rolled for storage, thus the folds and creases on these objects are from prior handling. Holes throughout the “Tapa” cloths were noted, which may be inherent to the plant matter it is made from. Indonesian baskets (TP-02-09 and TP-02-14) were observed to have mold and mildew spots. These baskets are made of natural plant fibers, leading to common damage and deterioration from improper storage and/or contact with water. Inspection of the Philippine Costume Doll (TP-02-02) brought damage to the doll’s head to attention, possibly due to melting or physical forces, causing the head to fall off, indicating unacceptable conditions for transport.

A considerable amount of objects in this collection are made from composite materials, with both organic and inorganic materials. Some materials may interfere or individually react to physical stress, causing differences in deterioration. With the risk of chemical interactions, it was important to survey the composite materials in this collection. Examples of objects with composite materials from the Touring the Pacific collection include: Indonesian Bali Women's Dress (TP-03-06), made from cloth, wood, and metal; Indonesian Percussion Instrument "Thumb Piano" (TP-06-21), made from coconut shell, wood, and metal; Phillippine Wall Hanging "Coasters" (TP-02-15), made from plastic and plant fiber. Considering these composite materials, recommended methods of housing and transportation are evaluated.

Housing concerns for this collection are significant due to the organic material many objects in Touring the Pacific are created from, specifically: wood, plant fibers, shell, and cloth. Materials manufactured from plants or animals often share similar characteristics of deterioration. Organic materials often are sensitive to light and are a food source for pests and mold. Incorrect or fluctuating temperature can cause discoloration and disintegration of organic materials, desiccation or fractures in paints or lacquer, and brittleness or fractures of solid materials. Incorrect humidity can cause mold or corrosion of organic materials, as well as hydrating or dehydration, causing a shrink or swell in unrestricted materials.

VI. Recommendations (C.B. & W.B.)

The objects in the Touring the Pacific collection need protection from further deterioration in transportation housing and display. To significantly support the objects made out of organic materials, like wood and plant fibers, protecting the collection from agents that cause deterioration can minimize damage. Placing UV filters on lights throughout the exhibit and storage area can help preserve the current state of objects, preventing further damage. Likewise, monitoring relative humidity and temperature throughout the exhibit display and storage areas are recommended to secure and preserve the collection.

To maintain the collection's organic materials, like the Indonesian Masks (TP-02-05, TP-02-08, TP-02-10, TP-02-29, TP-02-33, and TP-02-34) monitoring relative humidity and temperature, as well as placing UV filters on exhibition and storage lights, can preserve paint and lacquer on the wood. For objects in the collection made of plant fibers, like the Indonesian baskets (TP-02-09 and TP-02-14) which are experiencing mildew and mold, monitoring temperature and humidity can significantly improve the object's existence and duration. Addressing and securing the Philippine Costume Doll's (TP-02-02) broken head is certainly recommended as it is unsuitable for transport and display. Since the Philippine Costume Doll (TP-02-02) showed fracture and melting damage, it is recommended to monitor temperature to prevent further damage and deterioration.

Composite materials in this collection, like the Indoneasian Bali Women's Dress (TP-03-06), made from cloth, wood, and metal; Indonesian Percussion Instrument "Thumb Piano" (TP-06-21), made from coconut shell, wood, and metal; and Phillippine Wall Hanging "Coasters" (TP-02-15), made from plastic and plant fiber, feature both organic and inorganic materials. These materials interact with environment and elements differently, and can cause physical deterioration and chemical deterioration. To support these composite objects, a stable and monitored environment is recommended. A controlled temperature and relative humidity throughout transport, housing, and display will preserve the objects in this collection.

The current housing for the objects in the Touring the Pacific collection are not suitable for transportation, so necessary changes are needed to prepare for transport. To support the collection's objects are transported safely, we must ensure that the storage is properly insulated from elements and pests. (C.B) This survey recommends four types of packages be used, each catering to the varying dimensions and needs observed in the collection. These package types are indicated in the survey instrument under the category "Recommended Packaging Method" and are further defined in *Appendix III*. While these packing methods can be applied by other sources, Art/Ship's packaging services are referenced and recommended by this survey. The four methods are named as offered by Art/Ship: stretch wrap, cavity pack, slip case, and tissue bubble float.

The stretch wrap method is recommended for highly fragile objects like TP-02-01, a carved wooden figure with a chipped detail on the shoulder area. This object and similar ones, are recommended to be packaged with the stretch wrap method to ensure such delicate forms and unsupported extensions remain intact during shipping. The cavity pack allows for heavier or oddly-shaped items, such as TP-02-02 and TP-02-13 to be accommodated by individually cut holding areas in foam to fit their shape exactly. This method can also allow multiple items to be housed in the same crate easily, allowing multiple objects to be shipped together. This is especially helpful as 32.4% of the objects are recommended to use this method. Slip cases are recommended for 26.5% of the objects, all classified as "flat" in sizing notes (see *Appendix II*) which can, or should be, laid flat in transportation in a thinner reinforced cardboard box. Tissue bubble float packaging services are recommended for another 32.4% of the items. This method also allows for packaging of multiple items in one box and is a widely used and accessible method of packaging. To combat humidity changes from Los Angeles to the Philippines, it is recommended that activated carbon cloth be utilised in all shipping containers. (W.B)

VII. References

- Government of Canada, Canadian Heritage. "About Nomenclature." Nomenclature, January 7, 2021. <https://www.nomenclature.info/apropos-about.app?lang=en>.
- National Park Service, Government Agency. "*Chapter 4: Museum Collections Environment*". January 12, 2016. <https://www.nps.gov/museum/publications/mhi/chap4.pdf>
- Ship/art: Packing services. Ship/Art | Packing Services. (n.d.). Retrieved March 5, 2022, from <https://www.shipart.com/pc-packing-services>
- University products - Museum Quality Archival Supplies. University Products Inc. (n.d.). Retrieved March 5, 2022, from <https://www.universityproducts.com/>

APPENDIX II

A. Nomenclature 4.0 for Museum Cataloguing

These categories distinguish object types and are the first level of categorization in the Nomenclature 4.0 hierarchy. These classifications are referenced in the numbering system and survey instrument category “Object Type.”

Category 01: Built Environment Objects

Category 02: Furnishings

Category 03: Personal Objects

Category 04: Tools & Equipment for Materials

Category 05: Tools & Equipment for Science & Technology

Category 06: Tools & Equipment for Communication

Category 07: Distribution & Transportation Objects

Category 08: Communication Objects

Category 09: Recreational Objects

Category 10: Unclassifiable Objects

B. Observed Material

a. Wood

b. Plastic

i. Includes materials made of plastics as well as hard plastics

c. Metal

d. Cloth

i. Both synthetic and natural fiber cloth types are included in this category

e. Dyed Cloth

i. Dyed cloth refers to pattern printed cloths or fabrics which are then fashioned into an object.

f. Plant Fiber

i. Includes dried plant material

g. Paper

h. Skin

i. Refers to animal skins including pelts, treated

i. Paint

i. Painted objects will be listed by material underneath paint as well as paint (ie. painted mask listed as “wood, paint” not “painted wood”)

C. Material Type

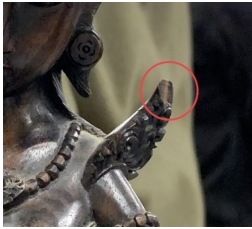
The material type category of the survey instrument is highly important in considering agents of deterioration and potential concerns in transportation and display of objects. While there are more minute differences between certain objects, those considered to be of the same material type are more likely to share weaknesses. In the survey of the Touring the Pacific collection, all objects contain some degree of organic material which aided the general assessment of concerns regarding pests and humidity for the collection as a whole. Definitions for this category were derived from the National Parks Services Museum Management Program Handbook Chapter 4.

a. Organic

- i. objects derived from once living plants or animals. (ie. wood, leather, paper, textiles, bark, lacquer, etc.). Concerns include combustibility, sensitivity to light, sensitivity to humidity, and being a food source for mold and pests.
- b. Inorganic
 - i. Geological originating materials processed in a variety of ways. (ie. metals, ceramics, glass, stone, some pigments). Concerns include chemical structure changing due to environmental factors or porousness. No items in this collection are surveyed as inorganic material.
- c. Composite
 - i. Objects containing organic and inorganic materials in any content ratio. If both material types are present, the object is considered to be composite, not specified as mainly one or the other.

D. Damage & Deterioration

Sun Fading	
Mildew	
Pest Damage	
Fraying	

Tearing	
Chipping	
Abrasions	
Melting	
Missing Pieces	
Holes	

Staining	
Creasing	
Fractures	
Residue	
NA	damage or deterioration not visible to the eye

E. Sizing Notes for Packing

a. Irregular

- i. Shape of object not cuboidal or recognizable as known shape (ie. TP.02.01)

b. Regular

- i. Object's shape is a standard geometric shape (ie: book, basketball, etc.)

c. Flat

- i. 2D objects and objects that can lay flat or be folded while maintaining a relatively even surface (ie. Tapa cloths TP-02-04, sarong TP-03-16)

F. Individual Object Concerns

The following agents of deterioration are referenced from the Smithsonian Institution's webpage for the National Postal Museum. The site provides a list of 10 agents of deterioration.

This survey uses eight of these agents as selections for the survey category where surveyors indicate any particular areas of concerns for individual objects based on their material composition and current condition. It is important to note that there is also a general assessment of collection concerns in which factors are addressed for the collection as a whole, so overlap is expected in the survey results.

- a. Physical
 - i. Physical force includes such agents as shock, vibration, pressure, and abrasion (which is included in *Appendix 2.D.g*). These are most concerning in the transportation and installation process.
- b. Fire
 - i. Aside from being burned by the fire directly, a local environment fire can also lead to smoke damage.
- c. Water
 - i. The destination location of the Philippines is particularly concerning when considering water damage potential due to frequency and intensity of natural disasters. The greatest way to avoid great water damage is to store all objects at least six inches off the ground and in enclosed cabinets in anticipation of flooding.
- d. Pests
 - i. Many pests can cause damage to objects, but insects and microorganisms are of the highest risk in this survey assessment of materials and the destination museum because a vast majority of the objects within the collection are of organic composition and may provide food source for pests.
- e. Pollutants
 - i. The most common of pollutants is cleaning agents which may be used near objects in cleaning procedures. These are man made pollutants, but naturally occurring pollutants such as liquids, dusts, dirt, can all cause accelerated decay in artifacts.
- f. Light
 - i. Light damage can be caused by both natural and artificial light. Ultraviolet and infrared light are main driving causes of deterioration from light. The gallery space suggested by the destination museum features a wall of large windows. According to the facilities report, the windows are UV-filtered and equipped with shades or drapes which mitigates the concern for light damage found in the survey.
- g. Incorrect Temperatures
 - i. Temperature can affect objects directly by accelerating deterioration based on material makeup of the artifact. The tropical weather of the destination museum is of concern along with the following category, humidity. This will be monitored by the destination museum's systems but only a central cooling system is in place and is not run 24/7.
- h. Incorrect Humidity
 - i. Humidity can cause more damage than temperature with incorrect levels leading to warping and mold growth. The facility report of the destination

museum indicates that humidity levels are routinely monitored and portable dehumidifiers are available.

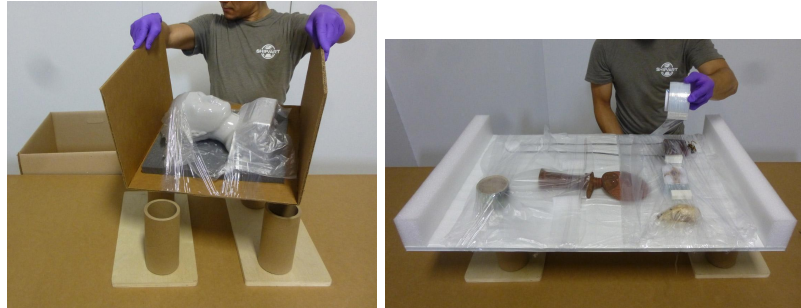
APPENDIX III

A. Ship/Art Packaging Services

Ship/Art is a company which builds crates and offers transportation services for fine arts and antiques with products ranging from cost-effective, one-way packaging qualities to museum-quality travelling exhibition services. The packaging services offered by the company were considered in this survey report with four of the six options being recommended for transportation of the Touring the Pacific collection. These four services are detailed below.

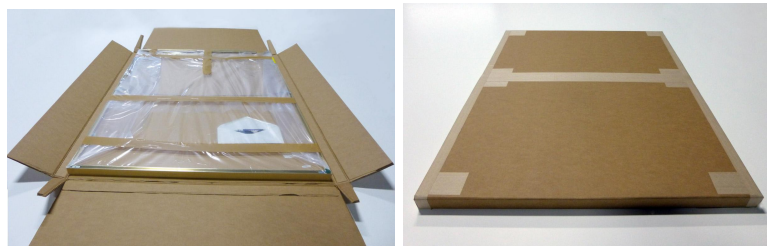
1. Stretch Wrap

- a. Used for packaging highly fragile objects. The stretch wrap material conforms to the shape of the object being packaged and secures it with more support than typical foam packaging.



2. Slip Case

- a. Encloses object, standard 2D, in a layer of cardboard and wrapped in Ship/Art custom manufactured virgin polyethylene sheeting. Cushioning can be added around the object as well. This method greatly minimizes risk of creasing and folds in objects.



3. Cavity Pack

- a. Object-specific compartments are cut in foam to accommodate their unique size and shape and then placed in a crate for shipping. This method allows for high visibility of the objects, easy repackaging, and mitigates vibration while stabilizing temperature and humidity. This method can be modified to serve as a storage mount.



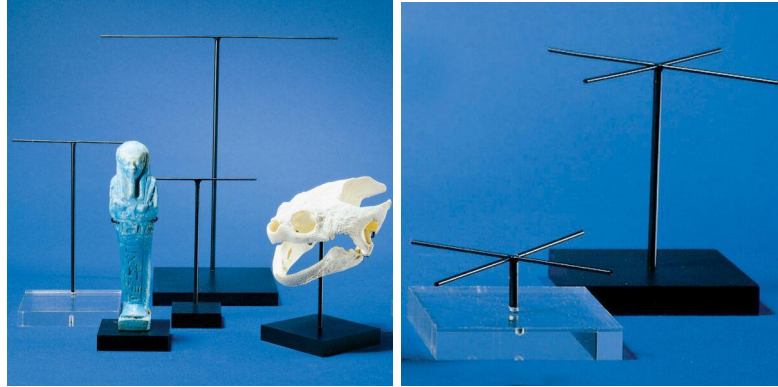
4. Tissue Bubble Float
 - a. Closely wraps objects in cushions and soft tissue and then wrapped in bubble wrap and placed in a foam-lined container secured with dunnage.



B. University Products: Museum Quality Archival Products

University Products supplies museum quality archival, conservation, and display products globally. This company's catalogue of display items was used as reference in establishing display recommendations as they may be utilised in the gallery shown in pictures provided by the receiving museum. The display recommendations given in the survey document are described here.

1. Wall Hanging Display
 - a. This display method is recommended for a majority of the decorative masks in the Touring the Pacific collection as most of them do feature an existing hanging device at the back of the object. This also eliminates the need to clean or restore some of the damage or residue on the backs of the objects as they will be against a wall. Cable hooks, cable tensioners and media hangers are some of the objects considered in the catalogue. This may be the most difficult display method to protect against environmental threats.
2. Mount
 - a. A variety of mounts, mainly armatures, are featured in the catalogue which can be modified to support objects of various forms. "T" armatures and "spider" armatures are most appropriate for the objects the survey recommends be displayed with mounts. The objects would still be placed inside a display case of some type, such as an acrylic display cube.



3. Display Case

- a. Four legged display cases and tabletop acrylic display cubes are the case types being referred to in this category. These cases can allow for additional reinforcements to be made to combat environmental threats to the objects.



4. Mannequin Display

- a. The mannequin displays are recommended for the garment objects and can then also be placed inside display cases similar to the previously mentioned mount selection.