



Smithsonian Institution
National Museum of Natural History
Department of Anthropology

CONSERVATION AND EXHIBITION GUIDELINES

These guidelines are intended to alert potential borrowers to our conservation procedures and standards. They are also intended to convey the potential complexity, costs, and need for clear and specific communication associated with loans and the exhibition of our objects. The latter are, of course, varied and may require specific conservation, mounting and exhibition interventions. Please feel free to contact us about concerns regarding requirements related to your loan.

General Requirements

- ✓ ALL objects must be exhibited in closed glass or plexiglas exhibit cases to protect from handling, airborne dust, insects, dirt and rapid environmental changes. Exhibit cases should be fastened with security screws and may be required to be locked and/or alarmed. In rare instances, permission may be given to exhibit an object in the open, provided that environmental and security conditions are suitable and the object is inaccessible to the public. Such permission must be obtained in writing from the Chairman's office, Department of Anthropology.
- ✓ Objects may have individual installation and security requirements. See loan agreement specifications for details.
- ✓ All exhibition materials in contact with objects must be sulfur-free and acid-free. If in doubt concerning use of a material, consult the Anthropology Conservation Laboratory.
- ✓ Objects must be handled only by persons trained and experienced in packing, handling, and installing ethnographic and archeological objects.
- ✓ Persons installing the exhibition should have clean hands, free of jewelry that might snag or damage an object. Clean gloves, preferably powder free latex, vinyl or nitrile, should be worn when handling objects and **must** be worn when handling metal and lacquer objects. Cotton gloves should be avoided when handling objects with rough components as the cotton fibers can snag and damage some objects.
- ✓ No object may be altered, cleaned or repaired without the written permission of the Chairman's Office, Department of Anthropology.

- ✓ Temporary holding and staging areas where objects may be placed must meet the same general requirements as exhibit areas.
- ✓ Smoking, eating and drinking are prohibited in storage, staging and exhibition spaces.
- ✓ It is the obligation of the borrower to ensure that the exhibit design, display techniques and exhibit case materials meet the guidelines specified in this document. The Anthropology Conservation Laboratory must receive exhibition floor plans, display designs, drawings of exhibit case specifications and bracketing designs for approval *at least four months prior* to exhibit installation. The Anthropology Conservation Laboratory will further specify appropriate techniques for display based on the needs of individual objects if necessary.

Security Requirements

- ✓ Security provisions must provide protection of objects against fire, theft, vandalism, and accidental damage.
- ✓ The facility should be equipped with fire detection systems monitored around the clock. Fire suppression systems may be required in some instances.
- ✓ Security personnel must be in constant attendance when the facility is open to the public. Professionally trained guards or special guards for the specific exhibit may be required.
- ✓ Daily inspection of the exhibition must be made by a member of the exhibitor's professional staff.
- ✓ Security during hours when the exhibition is closed to the public must include either periodic inspections of the exhibition space by guard personnel or continuously monitored electronic intrusion surveillance with an effective response system. The Department of Anthropology will determine which level of security is appropriate, depending on the objects borrowed.
- ✓ Objects must be displayed in closed cases fastened with security screws. Additional security in the form of locks and/or alarms on exhibit cases may be required.
- ✓ Objects must be securely bracketed to exhibit case panels and free standing cases should be secured to the floor.
- ✓ Temporary holding and staging areas should be secure from unauthorized entry and objects must be protected from unnecessary handling and accidental damage.

Lighting Requirements

- ✓ Both visible and ultraviolet light (UV) can cause structural damage and color changes in displayed materials. Recommended light levels for objects on exhibition must take into consideration length of exposure on exhibition. Consult the chart below for general recommendations. Contact the Anthropology Conservation Laboratory for materials or object types not listed in the chart.
- ✓ It is recommended that all UV radiation be eliminated from the exhibition environment. When this is not possible the maximum acceptable proportion of UV is 75 microwatts/lumen. Reduction of UV can be accomplished through filtration. UF3 plexiglas or the equivalent can be used in exhibition construction. In addition, filters must be installed over all light sources at their fixture. Incandescent bulbs are an exception if their manufacturer states they do not emit UV.
- ✓ Infrared radiation is detectable as heat emitted by some light sources and special attention to lighting design will minimize heat problems. All lighting fixtures must be located outside of the exhibit cases and heat from incandescent lamps in close proximity to cases must be vented away from exhibit cases.
- ✓ Lighting fixture location and light bulb wattage should be individually adjusted, depending on the type of objects/materials exhibited. Lighting fixtures should be no closer to objects than three feet for incandescent and no closer than two feet for fluorescent. Fiber optic lighting designs also can be considered.
- ✓ There should be no natural light in the exhibit area. If this presents a problem, consult the Anthropology Conservation Laboratory.
- ✓ No portion of an organic object shall be partially covered by another material or object while on exhibit. If this presents a problem for exhibit design, contact the Anthropology Conservation Laboratory for approval of alternate designs.
- ✓ Visible light levels should be monitored with appropriate light meters or other suitable equipment.
- ✓ UV radiation in the exhibition environment should be monitored with an appropriate UV monitor or other suitable equipment.

~ RECOMMENDED LIGHT LEVELS ~

<u>Material</u>	<u>Recommended Light Level</u>
<i>EXTREMELY SENSITIVE</i> all textiles objects with organic pigments & dyes feathers lacquer composite organic objects paper water color paintings albumen and tinted photographs	3 - 5 foot candle maximum
<i>MODERATELY SENSITIVE</i> (unless qualified above) bone, ivory, horn wood, reed, grass including tapa, basketry, mats leather, parchment, rawhide, skin fur furniture oil and acrylic paintings objects with mineral pigments	10 - 15 foot candle maximum
<i>LEAST SENSITIVE</i> (unless qualified above) metal, stone, ceramic, glass – not embellished with light sensitive materials	unrestricted

Temperature and Relative Humidity Requirements

- ✓ The selection of artifacts for exhibition as well as their location in that exhibition must take into consideration the sensitivity of the artifact to any existing environmental extremes and/or fluctuations. Certain objects may not be capable of withstanding particular exhibit environments.
- ✓ Temperature and relative humidity should remain constant. For most objects, $70^{\circ} \pm 5^{\circ}$ Fahrenheit, and $45\% \pm 5\%$ RH is the ideal environment year-round. However, certain objects, e.g. lacquerware and some metals, may require special environmental conditions; the Anthropology Conservation Laboratory will provide additional information for such objects in the condition report and loan agreement.
- ✓ When specified by the Anthropology Conservation Laboratory, additional moisture stabilizers such as silica gel may be required in exhibit cases to maintain a pre-established level of RH.

Object Bracketing and Mounting Requirements

- ✓ As a general rule, brackets and/or mounts for all objects are made by the Smithsonian under the supervision of the Anthropology Conservation Laboratory to the specification of the borrower.
 - Under no circumstance may an object be removed from a permanently attached bracketing system provided by the Department of Anthropology.
- ✓ In rare instances, permission may be granted for the borrower to fabricate brackets or mounts for loaned objects. The following criteria must be met:
 - ALL brackets or mounts fabricated for objects by a borrower must be approved by the Anthropology Conservation Laboratory. It is the obligation of the borrower to obtain such approval ***at least four months prior*** to exhibit installation.
 - No object will be altered or repaired to accommodate exhibit bracketing or mounting.
 - Objects must be mounted in ways that avoid physical stress or unbalanced weight distribution. Original hooks, strings, straps or other parts of objects should not be used for support unless their use has been discussed in advance with the Anthropology Conservation Laboratory.
 - Brackets/mounts must anticipate in their design the tendency for

organic materials to droop, sag, or experience dimensional changes while on exhibition.

- Brackets must be padded with non-abrasive, inert materials (e.g., synthetic felts, silicone tubing).
- No sticky substances (e.g., museum wax, silicone rubber adhesive or tapes) shall be used to hold objects in place. No object shall be tacked, stapled, nailed, screwed or otherwise permanently mounted to a board, backing, or wall.
- Objects must not be mounted using sharp folds or pleats (e.g., textile, paper, bark cloth).
- Textile artifacts and similar objects are especially sensitive to the physical stresses of exhibition. Muslin linings, backing fabrics and the like are often needed to reinforce and protect these objects. Mannequins or other supports may be needed for costumes. The Anthropology Conservation Laboratory will specify appropriate techniques for display based on the needs of individual objects if necessary.

Exhibit Case Requirements

- ✓ ALL exhibit case construction materials and/or case designs must be approved by the Anthropology Conservation Laboratory. It is the obligation of the borrower to obtain such approval *at least four months prior* to exhibit installation.
- ✓ All materials that comprise part of interior case environments must be free of acid or harmful volatile chemicals. Suggested materials include inert metals, glass and acrylic. Any materials used in case construction that are not considered inert such as wood products must be isolated from the case display volume with an inert barrier layer such as Dibond (Aluminum Composite Material) that is appropriately gasketed or sealed with an approved caulk or aluminum tape. ACL approved inert materials such as Dibond or Plexiglas (polymethyl methacrylate) should be used for the case inserts, object risers and back panels within the case display volume.
- ✓ All other materials used within the case display volume including paints, fabrics, adhesives, graphics and gaskets must be approved by the ACL. All materials used should have a four week off gassing period. Recommended paints include 100% acrylic, no VOC paints. Recommended fabrics include Oddy tested fabrics from Test Fabrics.
- ✓ Choose from stable classes of materials but also expect to provide Oddy testing results for any materials not recently tested. This testing takes at least four weeks.

- ✓ Objects must not touch exhibit case glass or plexiglas.
- ✓ Exhibit cases should not be placed near an outside door or window, under exposed pipes, over or near a heat source or an air conditioning unit.

Packing Requirements

- ✓ Unless otherwise specified, all objects must be returned to the Department of Anthropology at the conclusion of the loan period in the original packing materials provided by the Anthropology Conservation Laboratory.
- ✓ When site packing is required by the borrower, all packing designs and packing materials for Department of Anthropology objects must be approved by the Anthropology Conservation Laboratory. It is the obligation of the borrower to obtain such approval.
- ✓ Selection of the exterior shipping container will be dependent on the kinds of objects included in the loan and the intended means of shipment. In some cases, cardboard boxes will be adequate, in others wooden or metal crates will be necessary. Consult the Anthropology Conservation Laboratory regarding appropriate shipping containers.
- ✓ Interior packing should be simple and executed, where possible, with materials that are free of acid or harmful volatile chemicals that could damage objects
- ✓ Interior packing must provide adequate cushioning for individual objects and must not be abrasive to object surfaces. Non-abrasive, inert materials such as Pellon, acid-free tissues, unbleached muslin or flannel, and the like may be required.

Contract Conservation Requirements

- ✓ In general, Anthropology Conservation Laboratory staffing is not sufficient to provide full conservation services for special projects such as loans and exhibits, and the services of contract conservators funded by the borrower may be required.
- ✓ On all issues relating to the care of departmental collections, contractors will work under the general guidance of the Anthropology Conservation Laboratory and must maintain close communication on object treatment, as well as bracketing and packing specifics.
- ✓ ALL treatments must be approved by the Anthropology Conservation Laboratory, as well as the appropriate curator, before any interventions are undertaken.
- ✓ Completed treatments must be accompanied with appropriate documentary

photography (digital images) which will be labeled following Anthropology Conservation Laboratory protocols. Treatment and condition reports entered into the Anthropology Conservation Laboratory database also must be provided.

Venue Conservation Requirements

- ✓ It is the responsibility of the borrower to monitor the changes in condition of objects while on exhibition and tour. A contract conservator or other designated representative must monitor objects throughout the loan period and notify the Anthropology Conservation Laboratory immediately of any changes in condition.
- ✓ Site reports, when requested, must be sent to the Anthropology Conservation Laboratory in a timely manner in order to be able to effectively evaluate exhibition impact on our objects.
- ✓ If objects are damaged on exhibition, the decisions as to whether damaged objects continue to be lent to a borrower and what treatments might be necessary are the jurisdiction of the Anthropology Conservation Laboratory.
- ✓ Complete documentation (both written and photographic) may be required, particularly if on-site treatments are involved.

Art on Paper and Photographs Requirements

- ✓ All art on paper will be matted in the following standard sizes: 7" x 11", 11" x 14", 20" x 24", or 24" x 32".
- ✓ Matted objects will be enclosed between Mylar and UF3 plexiglas and sealed around the edges with archival pressure-sensitive tape. The object will be shipped in this format for framing by the borrower. *The object may not be removed from this package by the borrower.*
- ✓ The borrower is responsible for the cost of the plexiglas package materials.
- ✓ In the case of photographs, copy prints will be used where possible.

Non-art on Paper

- ✓ All non-art on paper in single sheet format will be either matted as above or encapsulated in Mylar.
- ✓ Encapsulated objects will be backed with buffered tissue. Objects may be attached to matboard before encapsulation when necessary for extra support. This will be determined by the Anthropology Conservation Laboratory.
- ✓ Encapsulated objects are to be matted and framed by the borrower. *They may not*

be removed from the encapsulation.

- ✓ The borrower is responsible for the cost of the plexiglas package materials.

Bound Materials

- ✓ All bound materials will be examined by an Anthropology Conservation Laboratory conservator, or an outside conservator approved by the Anthropology Conservation Laboratory, to determine the maximum extent for opening during display. The borrower must state which pages of the volume will be exhibited before specifications may be determined. The object must be exhibited on a cradle made to the specifications determined by the Anthropology Conservation Laboratory for that object. The cradles may be constructed by the borrower or contracted by the Anthropology Conservation Laboratory at the borrower's expense. The cradles must be made of plexiglas or archival quality rag board. If this presents a problem for exhibit design, contact the Anthropology Conservation Laboratory for approval of alternate designs.
- ✓ The pages of the book will be strapped open with polyethylene straps where appropriate. Depending on the fragility, strapping must be carried out either by Anthropology Conservation Laboratory staff or by trained personnel approved by Anthropology Conservation Laboratory.
- ✓ The borrower is responsible for all costs associated with providing a cradle for bound materials.

Any exceptions or alternative proposals to these guidelines should be made in writing to Susan Crawford, Department of Anthropology, Museum Support Center, MRC 534, Smithsonian Institution, 4210 Silver Hill Road, Suitland, MD, 20746.

Failure to comply with these guidelines, once negotiated with a borrower, may result in increased conservation fees or revocation of a loan.

Anthropology Conservation Laboratory telephone number is (301) 238-1306.

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