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- Guidelines by type
  - Paintings
  - Works of art on paper & books
  - Textiles, leather, & costumes
  - Three-dimensional objects

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PREFACE

The staff of the Autry Museum of Western Heritage is a team of individuals who have special areas of training and expert knowledge. No group is more critical to our primary purpose of preserving our collections and loans than you, the staff entrusted with the responsibility and stewardship of actually handling the artifacts and works of art. Knowledge that you gain from working with curatorial, conservation, and collections management experts, combined with on-the-job experience, is what leads to your professional development at the Autry Museum.

This manual should serve as a guide along with the regular training sessions presented by the Conservation Department. It is essential that each of you, whether you are starting out or more advanced in handling objects, becomes familiar with the procedures outlined here.
INTRODUCTION

People who handle artifacts and works of art have a critical role to play in the preservation of the museum's collections. A moment's inattentiveness or haste may negate all the extensive efforts of curators, collections managers, and conservators to extend the life of an object. An act of carelessness may cause the work to be irretrievably damaged and lost to future generations.

The purpose of this manual is to provide simple, useful guidelines for handling the broad range of artifacts and works of art in the museum’s collections. It is addressed to all who are responsible for the care of the collections or who are permitted to handle objects.

Most of the pieces in the Museum's collections have long outlived the life spans envisioned by the artists and craftspeople who made them. Artifacts from organic materials have generally been weakened by frequent handling and suffered deterioration from the natural aging processes brought on by exposure to light and the fluctuation of temperature and humidity. Inorganic objects may be weakened by corrosion, weathering, pollution, etc. Many objects have undergone restoration and repair throughout their existence. Thus, an apparently solid-looking object may prove to be a mass of well-disguised repairs. Everything in the collections should, therefore, be treated with respect for its inherent fragility and the vicissitudes it may already have undergone.

The cardinal rule is to avoid all unnecessary handling or touching. What follows are guidelines designed to improve the safety of those situations in which it is necessary to move, handle, or touch an object.
I SUPERVISION

Depending on the circumstances, authorization to move an object must be issued by a staff curator, collections manager, or conservator. The supervision of the movement of an object in the permanent collection is either directly assumed or delegated by a curator, collections manager, or staff conservator. Obviously, all actions should be guided by common sense and experienced voices should be heeded.

The rules and guidelines for handling apply to everyone: curators, collections managers, conservators, preparators, technicians, and specialists. Exceptions are permitted only when the special nature of the material being handled dictates a different procedure. Only a curator, collections manager, or conservator can make the final decision if such a situation exists. Should a supervisor break a standard procedure for an express reason, they should explain the rationale for the decision to the crew. In the event of irreconcilable differences of opinion between the crew and the delegated supervisor, all action must stop and guidance be sought from the appropriate curator, collections manager, or conservator.

The following guidelines also apply to supervisors:

1. Check the condition of a piece and note any special features or handling precautions before making a move.
2. Only those familiar with correct handling should supervise the moving operation or train a new person.
3. Always plan a move thoroughly, give clear instructions to the crew, and follow the plan as stated. Be sure the crew understands all instructions before making the move.
4. Never force handlers to tackle a job they feel is beyond them, but feel free to suggest alternate methods they might not have considered. Conversely, refuse to undertake any move for which you feel that you have insufficient manpower or that other conditions may make needlessly hazardous.
5. Remember that too many hands are as dangerous as too few. It is up to the supervisor to determine the appropriate number of crew for a specific task.
6. No one except the supervisor is to give instructions. If other members of the crew or an observer have anything to add, it should be directed to the supervisor. Make sure everyone knows who is the supervisor.
7. Never urge haste. Don't act nervous no matter how delicate a move. Inspire confidence. Don't make irrelevant or irreverent remarks.
8. If a work of art exhibits damage that may be affected in transit, or that may determine the method of transit, make sure that a conservator or collections manager is present.
9. The responsibility for the safety of the object lies with the individuals who are handling the objects.
II PRELIMINARY EXAMINATION

Look for existing damage before moving an object and point it out to your supervisor. This ensures that everyone involved understands any extraordinary circumstances, and can save the piece from potential harm.

Treat all objects with the same amount of care. Make no distinction as to supposed monetary value or artistic merit. Handling procedures should be based on the physical requirements of the media involved. Know the material, the structure, and the weak and strong elements of the item. Check the condition and note any special features of the object before moving. If the object suffers from damage which may worsen during transit, consult a conservator.

Some questions to ask or consider before moving an object:

Materials: What is it made of? Is it light, heavy, weak, strong etc.

Condition:
- Is it inherently fragile?
- Is it porous? (e.g., ceramic, stone)
- Is it thin-walled? (e.g., porcelain, metal)
- Is it brittle? (e.g., wood, fiber)
- Is the surface flaking or loose? (e.g., paint, veneer)
- Has it been damaged?
- Has it been restored?
- Is it dirty? (item should be cleaned before moving)
- Is it slippery? (e.g., glass, ceramics, polished stone)

Conformation:
- Is it heavy?
- Is it top-heavy?
- Does it have projections?
- Does it come apart?

Base or mount:
- Is it securely attached to base or mount?
- Is the base is very heavy?

Location:
- Where will the work be moved to?
- Is that site ready to receive the work?
- Is the space cleared off?
- Is the paint dry?
- If needed, is a barrier in place?
III GENERAL GUIDELINES

*No smoking, eating, drinking or chewing gum around the art and artifacts.*

Follow instructions from only one person while moving objects. If there is a discrepancy call the supervisor.

Not only care, but the appearance of being careful, is important. The impression that art handlers make on visiting lenders, couriers, and other museum staff is very important to the overall reputation of the museum.

Report all damages or possible damages immediately. Save any fragments. Remember that damages caused by careless handling are not always visible immediately.

**Moving the Artifacts:**

Handle all objects as infrequently as possible. Plan ahead and eliminate unnecessary moves. Hand-carry an object no further than necessary. Move a cart to the item rather than carrying the object to a cart,

Unless the piece is easily managed by one person, two or more must handle it. One person is necessary to open doors, steady the object, and to work as a "spotter" to watch all sides of the object that the carrier(s) cannot see.

Handle, move, or carry one item at time, and use both hands. Do not be reluctant to say that the object is too large or too heavy for you to carry. Provide support for cracked or weakened parts if necessary.

Transport objects by means of a hand-held tray, other container, or padded, rubber-wheeled tray cart (e.g., Rubbermaid cart) which will not vibrate during the move. When a cart or dolly is used, it should be moved slowly, and care must be taken that the object carried is not jolted when going over thresholds, elevator entrances, or other irregularities in the floor. Never open a door with one hand and hold an object in the other.

Do not set an object down on a surface which has not been tested beforehand to make sure that it is steady and will bear the objects weight.

Remove all watches, rings, or other protruding surfaces with irregularities that could scratch an object; beware of belt-buckles as well. Remember that necklaces, pens, pencils and items left in a shirt pocket can fall against an object as you are lean over it, examine it, or pick it up. Tools, pencils, keys, or items sticking out of pockets can also cause damage.
Dirt and oil on your hands can cause serious damage. Keep your hands clean, even when using gloves. Use only clean gloves. Use only the proper gloves for the specific use and type of object: Clean, white, cotton gloves are used for general purposes, e.g., light-weight framed items, light-weight three-dimensional items, books, negatives, etc.; vinyl gloves for a firm grip for use on items with a smooth or slick surface; or when working with baskets, animal hides, and items which may have been chemically treated.

Make no sudden or unnecessary movements in the vicinity of artifacts or works of art. Never walk backwards with an object without the assistance of a "spotter." Be aware of what is behind you and how close you are.

Never place dissimilar things together on a cart or move vastly different sizes, weights, or materials together without adequate spacing and the proper barriers between items. Make sure works are balanced and stable in the position you have placed them. Safely pad or secure if necessary. Never overload a cart!

Try to keep objects upright, since they were designed to carry their own weight in this position. If an object's center of gravity is such that it is top-heavy, provide adequate support and place the object in such a manner as to stabilize and lower the center of gravity.

It is preferable to have two people present when a ladder is used to place an object on or retrieve it from an overhead area. One person steadies the ladder and passes the object to or takes it from the person on the ladder.

Do not place works of art directly on the floor. Use carpet pads, blocks, or foam rubber pads.

When picking up a heavy object, bend at the knees instead of leaning over; the weight should be taken by the leg muscles rather than by the back.
IV  ACCIDENT REPORTING PROCEDURES

If there is an accident during handling, REPORT IT IMMEDIATELY to a conservator, collections manager, or curator. If an artifact is damaged, do not touch it or try to pick it up. Secure the area to prevent loss or further damage to the object (or pieces thereof). If the accident occurs within the Museum's galleries, security staff will assist in cordonning off the area. Do not move objects or broken pieces unless necessary to prevent further damage. Photo document the damage and the area before moving anything. Make note of the reason for the damage.

Additional damage frequently occurs from well-intentioned but uninformed attempts to clean up after an accident. It is important not to "test fit" broken elements, because rubbing them together along the breaks will make later repair more difficult. Never discard even the smallest fragment after an accident.

When unpacking artifacts that you suspect may have been damaged, never discard packing materials. Search them thoroughly for fragments then retain the old packing material in the crate for future reference on its repacking, or make sure that the Collections Management Department has noted packing methods and materials.

Artifacts and works of art can be irreparably damaged by incorrect methods of cleaning. If you think an artifact must be cleaned, inform a conservator. Only a trained conservator should undertake cleaning or treatment procedures.
V PAINTINGS

A. Checklist

1. Do not touch the front or back surface of a painting. Never allow anything to rest against either surface because it will cause distortion and damage.

2. Before picking up a painting, check for damage. If painting is framed, check to see if it is secure in the frame. Check the hardware to be sure it is secure. Use handles if they are attached. Do not carry a framed painting by the hanging wire.

3. No more than one painting should be handled at a time. Large paintings should be moved by two or more persons. Carry a framed picture with one hand beneath and the other at the side of the frame, where the frame is solid. Never carry a painting by the top edge of the frame or the stretcher. An unframed canvas or panel should be held at the edges only, and thin cotton gloves may be worn to avoid marring the surface. Always use two hands no matter how small the painting may be.

4. Never insert your fingers or knuckles in between the stretcher and the canvas. The distortion may cause permanent damage to the paint surface.

5. Whenever possible, move paintings on an "A-frame" cart or large "painting truck." Enlarge the supporting framework of a cart when necessary to support an outsize frame and stretcher. When necessary, it is advised to secure the painting(s) in place with soft nylon straps before moving the cart. Do not allow the straps to come into contact with the surface of the paintings. Do not allow straps to drag on the floor. Coil them neatly.

6. All unprimed paintings with painted edges should be handled with clean white gloves. Fingerprints or oil from your hand will ruin these surfaces.

7. When loading or unloading a cart, one person should stay with it to prevent rolling as works are lifted on or off and to steady the works remaining on the cart.

8. Do not overload carts. Whenever possible, the outside of a painting should not extend beyond the sides of the vehicle.

9. Unframed works, must not be stacked. They should be transported on the outside of an "A-Frame" cart or flat on a Rubbermaid cart if they will fit. When transporting on a painting cart, protect both sides by sheets of cardboard.

10. Paintings on opposite sides of a cart or truck should not rest against each other above the cart or truck's framework.

11. Whenever possible do not stack paintings. However, when necessary always stack face-to-face and back-to-back with cardboard sheets larger than the paintings in between each one.

12. Stack work of similar size together. Put largest work at the back tapering to smallest at the front. Adjacent pictures must be enough to cross each other completely. Whenever possible, crisscross the works so that they lie alternately vertically and horizontally - HOWEVER, KEEP WORKS IN THEIR RESPECTIVE ORIENTATION, WITH THEIR TOP END ALWAYS UP. Always interleave each painting with cardboard inserts. This eliminates the danger of one frame slipping off another into the work next to it and protects the faces of the pictures from protruding objects on the back of adjacent frames.

13. Never stack works with protruding hanging devices; never stack unframed material or work whose frames do not extend beyond the surface of the adjoining canvas.

14. Always stack on a non-skid surface. Keep stacks as shallow as possible. The weight of pictures at the front of a deep stack can damage frames at the back.
15. Stack works with ornate frames only on padded blocks so that fragile extended corners or ornamentation do not bear any weight.
16. Place a sheet of cardboard larger than the outermost frame projection between each picture in a stack.
17. Stand the inside picture of a stack in as vertical position as it will easily hold without falling forward. Stand all succeeding pictures in the stack flush with this one. The natural tendency is to stack at too great an angle. This creates pressure harmful to pictures on the inside and may cause the stack to slide forward from the bottom.
18. When moving large paintings, carry them as close to the floor as possible. Avoid striking door sills or placing yourself in a clumsy position.
19. Never apply tape or adhesive either to the front or back of a painting, or to the visible parts of its frame.
20. Do not hammer nails into the wall when a painting is below. Remove the painting so that the plaster dust does not get on the surface. Check hardware and hanging devices. Care should be taken to attach hardware to the thickest part of the frame.
21. Use extra care in handling wrapped paintings. They often are hard to manage.
22. If using a dolly to move an oversized painting, three people are required. Two people support the painting, while the third places the dolly under the center of the work as the painting is lowered.

B. General Considerations

In the handling of paintings, the care and experience of the handler provide the best insurance against damage. The moving and installation of pictures and their removal from exhibition should be supervised by a member of the staff familiar with the procedure.

No more than one painting should be handled at a time; large panels and canvases - with or without heavy frames - should be moved by two or more persons. Frames afford some protection, and a painting is safer in a frame than without one. It may occasionally be necessary to carry an unframed painting by the stretcher, but canvases and panels should be grasped at the edges only. Special care should be taken to protect paintings with areas of exposed canvas from dirt and fingerprints. In this case, thin cotton gloves may be worn. Framed paintings should be carried with both hands, one beneath and one at the side of the frame, always at point where the frame is solid; check the frame first for old breaks, repairs, and points of weakness. Never lift or carry a framed painting by the top of the frame, or by its stretcher.

Whenever possible, pictures should be moved on a cart rather than carried by hand. The cart should have a padded floor and it should not be overloaded. When necessary, the paintings should be secured in place before the cart is moved and be accompanied by two or more persons while in motion. The structure of the cart must support at least two-thirds of the height of a painting. Having stated this, only when absolutely necessary, should a very large paintings should be placed on the cart on its longest side against its proper orientation. Attempt to keep all paintings in their proper orientation, top end up, to avoid any stress to the paint layer, canvas, stretcher or stretcher keys.

The stacking of paintings and frames on carts or in storerooms is inherently risky and must be avoided if possible; both frames and painted surfaces can be damaged. If stacking is unavoidable, it
must be done with the utmost care. Paintings and frames should be stacked upright and padding or interleaving material must always be inserted between each item and wherever there is projecting ornamentation. Paintings with exposed canvas and fragile paint layers, should always be covered while in storage with a smooth acid-free paper, to protect them from abrasion, fingerprints, and airborne dirt. All pictures in a stack should be of similar size and weight. The paint surface should never come in contact with padding or interleaving materials.

When hanging a picture, make certain that the supporting wires and fixtures are strong enough to bear its weight.

It should never be necessary to touch the surface of a painting. Fingerprints on paint surfaces or on frames can damage and spoil the finish. They cause some varnishes to bloom and necessitate treatment of the whole surface.

Adjusting the securing stretcher keys and removing objects that become wedged between the canvas and stretcher are the responsibility of a trained conservator and should not be attempted by anyone else.

Labels and adhesive tape should not be applied to the backs of canvases. They may cause the portion to which they are attached to expand and contract at a rate different from that of the rest of the canvas, with resultant cracking and possible flaking; the chemicals in the adhesives can also seep through the canvas and affect the paint on the other side. A backing of, cardboard, Foam-Cor, or Masonite will protect the painting from blows to the reverse and from dust. To allow for the circulation of air, small holes should be cut in the backing before it is applied.

Paintings should not be treated by anyone other than a trained conservator. Neglect is less dangerous than an inexperienced treatment. If there is any doubt about the condition of a painting, or if it has been damaged accidentally, it should be left untouched until it can be examined by a conservator.

Extremes of temperature and humidity are damaging to a painting. The temperature of galleries and storage areas should stay within the range of 68-70 degrees Fahrenheit; a steady relative humidity of about 50% is desirable. Heat, including heat from photographic flood lamps, is particularly dangerous to lined canvas and panel paintings. Paintings therefore should not be hung near windows, radiators, or heating vents, or otherwise exposed to heat (particularly that from photographic lamps) for prolonged periods.

Report any damage, however slight. If paint flakes or parts of frames become detached save all the pieces, for repairs are much easier if these are available. Keep a record of all damage and repairs.

Works too large for painting carts can often be moved on dollies. This is hazardous, but if done carefully it is less dangerous than carrying. Never slide a framed painting along the floor without a dolly.
C. Large Paintings

At least three handlers are necessary to move large paintings. One person supports each end of the painting, while the third "spots" during handling and transport. If the work is fairly light, they lift its edge onto the dolly, which is steadied by the third person. If it is a heavy item, one handler raises one corner and the other end is supported by the second handler, while the third person slips the dolly under the center of the work and holds it flush to the edge of the painting while the work and the dolly are lowered to the floor. If the painting were angled onto a dolly set flat on the floor, it could kick out when the painting was lowered. The third person steadies the dolly until the painting is securely set onto it, and when it goes over door sills and rough spots.
VI WORKS OF ART ON PAPER AND BOOKS

A. Checklist

1. Do not expose works of art on paper to unfiltered fluorescent lighting or daylight.
2. Carry one object at a time, with the top of the artwork uppermost to avoid strain on hinges. Use both hands.
3. Do not lift by the top frame rail, as this can bow, allowing the glass or Plexiglas to pop through the frame front.
4. Hands must be clean to avoid marking frames, wall, display cases, etc.
5. Only rag board or high quality acid-free materials are to come in contact with works of art on paper or books.
6. Do not touch the surface of any work of art on paper.
7. Do not lift unmounted prints or drawings. Unmounted materials are to be handled by a departmental specialist.
8. Protect prints, drawings and books in transit and in storage by placing them in folders and using interleaving sheets.
9. Do not shuffle prints, drawings, photographs, or attempt to pull an individual print or drawing from a pile without removing those above it.
10. Do not place pastels or charcoals face down or allow the media to come in direct contact with another material.
11. Do not stack open books, stand a book on its fore edge, or shelve books too tightly.
12. Never use pressure-sensitive tape, metal clips, or materials containing rubber with works of art on paper or with books.

B. General Considerations for Works on Paper

Works of art on paper, a category which includes prints, drawings in all media, pastels, photographs, and works on related materials such as parchment and papyrus, are among the most vulnerable of objects. They are readily damaged by mishandling, excessive light, fluctuations and extremes of temperature and humidity, and the materials with which they come in contact.

C. Glazed Works

Tape only glass, not Plexiglas, for shipping.

Do not tape solidly. Leave space between the strips. Enough tape should be applied to adequately support the glass in case of breakage. Tape ends should not contact the frame finish. Ends can be folded under about ½” for easier removal. To remove, pull back along its length, and not at a right angle to the surface. Pulling the tape at a right angle could break the glass.

D. General Considerations for Books

Books should be treated as carefully as any work of art.
When handling books use a clean cotton glove for holding the cover and spine, while handling the individual pages with a clean hand without a glove. This will avoid accidental tearing and creasing of the pages with an awkward gloved hand. If medical latex gloves are available, then this is an excellent substitute to a bare hand.

Books are particularly subject to mishandling. Bindings are frequently cracked along the spine in the attempt to make an open book lie flat. To reduce tension and prevent cracking, supports such as flat blocks, wedges, or another book should be placed beneath the open covers. If a book has a delicate binding that might be easily abraded, it should be laid on a felt cloth when in use. To turn a page lift the top corner and lightly slip the fingertips down the fore edge. Never turn pages with wet fingers or while holding a writing implement in either hand.

E. Stacking and Shelving of Books

Do not stack open books, or place them face down, or put anything on top of them; the strain and extra weight will cause the bindings to crack. Never allow a book to stand on its fore edge. In this position the weight of the text block forces down and spreads the covers, and in so doing crushes the leaves and breaks the binding. Frail bindings should never be stacked. Heavy books should be laid on their back covers, for in an upright position the text-block may sag. Do not stack more than three or four deep.

Stand books on a shelf so that they provide comfortable support for one another. If books are shelved too loosely, their binds will be strained; if too tightly, they can be damaged when pulled from the shelf. When taking a book from its shelf, do not force it from the top, or head, of the spine; try to push back the books on either side and to clasp it around the middle of the spine. Lift the book, do not slide it off the shelf.

F. Lighting, Climate, and Storage

Works on paper are highly sensitive to the effects of any type of intense illumination and should not be exposed to direct sunlight, unfiltered fluorescent lamps, or the heat of incandescent bulbs.

In storage, to protect from light as well as dust, matted and unmatted works on paper should be kept in acid-free folders or Solander boxes. Framed works of art that cannot be kept in boxes should be protected from light by a cover of paper or cloth. Lights should be turned off when not needed. Works on paper must never remain uncovered if not on display or being examined.

G. Handling and Transport

An unmounted print or drawing should be handled by appropriately trained curators or collections managers; e.g., Research Center staff/librarians, conservators, and departmental specialists.

Never hold a print, drawing, or photograph, even if it is mounted on a support sheet, with one hand; if the paper or its support is brittle, it is likely to crack under its own weight.
Never shuffle groups of prints or drawings to align their edges, or pull an individual sheet from a pile without first removing all the sheets that lie on top of it. Matted works of art should be opened only from the right-hand comer, never by reaching through the mat window.

Paper clips and staples should never be used with works on paper, and should be carefully removed if they are already present. They can cause impressions in the paper, tears, and rust stains.

Wet, sticky, or dirty hands must never touch works on paper. Pens, pencils, and all sharp objects, including screw eyes, wires, and nails, should be kept at a distance.

When transported any distance, individual works of art on paper which are neither framed nor matted and which are not to be carried in an acid-free or Solander box should be supported and covered by sturdy sheets of clean acid-free cardboard, ragboard, or placed in a folder of good-quality blotting or acid-free paper. The size and weight of the work will determine the type of support used, but this should always be larger than the work and should not allow it to bend. Groups of matted or unmatted drawings, prints, or photographs to be moved should be placed in a box or support boards (underneath and on the top) and transported on a cart.

Never affix a label with tape to interleaving paper or tissue. The adhesive can bleed through and damage the work of art of pages of a book or manuscript.

Pastels and charcoal drawings present special problems in glazing and handling, owing to the weak attachment of their pigments to paper. They should never be framed with Plexiglas because the static electricity will cause the pigments to migrate to the glazing. An unframed pastel or charcoal drawing should be handled only by a conservator.

If framed pictures have to be stacked, cardboard or another resilient material should be placed between them to protect the glass or Plexiglas (which scratches easily) and the frames. To prevent slippage, the picture should be placed on rubber pads and one or more heavy weights should be propped in front of the stack.
VII TEXTILES, LEATHER, AND COSTUMES

A. Checklist

1. Hands must be washed and dried before handling textiles, leather, or costumes. Nails should be kept short and smooth.
2. No jewelry (rings, watches, bracelets, necklaces, belt buckles, etc.) which does not have a smooth surface. Strongly perfumed cosmetics or make-up (especially face and lipstick) should not be worn.
3. ID or key cards should be worn inside pockets or under garments. When necessary, wear a clean smock.
4. All areas and equipment coming in contact with textiles should be thoroughly vacuumed and kept clean at all times.
5. Worktables should be covered with clean sheets of thin Ethafoam, acid-free tissue, or desized, undyed muslin that is changed when necessary.
6. Handle objects as little as possible; support them on a solid surface when examining or transporting them. Cover with clean acid-free covering material when not on view.
7. To avoid damage, objects in storage should be easily accessible, clearly identified, and protected from light.
8. Use only chemically inert materials that come in contact with textiles, leather, or costumes.
9. Avoid folding textiles, leather, or costumes. However, when necessary never repeat a fold, always refold against earlier fold lines. This will ensure that a fold line does not become imprinted and create brittleness, tears, soiling or discoloration.
10. If plastic wrapping is used, an inner covering of acid-free tissue must be provided. Object must not be sealed in plastic; leave ends open if rolled in plastic.

B. General Considerations for Textiles

Because museum textiles are, for the most part, made of organic material (fibers and dyes), they respond more critically to maintenance procedures and their environment than items made from other media. Their pliable and absorbent physical and chemical nature makes textiles very sensitive to degradation during handling, storage, study, and display. Deterioration of objects made of fiber progresses at all times and is hastened by negligence, mishandling, climate, contaminants, light, and insects.

C. Storage

Rooms where collection textiles are kept must be clean, and materials for surfaces that come in contact with them should be properly selected, prepared, and kept clean.

D. Handling and Transport

Clean hands are essential. It cannot be emphasized too strongly that immediately before handling textiles and after every interruption, hands must be washed and completely dried.
Mechanical damage from abrasion, tension, and vibration can be caused by the cumulative effects of simple motions that occur during routine actions such as pulling, dragging, stretching, folding, and rubbing. Museum textiles should, therefore, be handled as little as possible, and when handled, touched as little as possible. To this effect, museum textiles must always be placed on a supporting sheet of acid-free cardboard. This gives stability to the textile and permits the support to be moved instead of the object. If it is necessary to touch the textile, it should be done with as little manipulation as possible.

If polyethylene film is used as an exterior covering, a layer of acid-free paper or muslin should be placed between it and the textile.

Museum textiles in transit must be covered and supplied with a rigid support. The support may be a flat board, a box, or a tube that either is made of inert material or has been given an acid-free barrier as a protective layer. Hold the support, not the textile, and carry it horizontally. The cart or truck used for transport should be equipped with swiveling rubber-covered casters and with shock absorbers. Secure textiles on the vehicle and move it slowly. If the textile is to be carried by hand, it must be placed in a box; textiles should never be carried exposed or hanging free. Textiles must be covered at all times to prevent exposure to light, insects and air currents.

Costumes and accessories should never be tried on, and should be handled only by authorized persons. To ensure a minimal amount of handling, ample space to allow both for visibility in storage and careful organization of the collection is essential.
VIII THREE-DIMENSIONAL OBJECTS

A. Checklist

1. Before handling an object, examine it closely; note old repairs and structural weakness, and parts which should not bear weight when it is set down. Do not test or probe areas that appear to be weak. Assume that they are weak and protect them accordingly.

2. Check to see if the object is constructed in parts so that it can be dismantled and the parts moved separately (this applies particularly to furniture constructed in tiers, sculpture and other objects attached to bases, and ceramics with detachable lids).

3. Never grasp projecting elements (handles, arms, etc.), as they often have been repaired and will not support weight.

4. With both hands, get a good hold on a solid, relatively flat area and support the heaviest part of the object.

5. Transport objects on rubber-wheeled cart or trays padded with resilient packing materials to avoid shock and vibration.

6. Minimize the dangers of hand-carrying by bringing the cart or tray as close as possible to the point of loading or unloading. The cart should be held steady or blocked during loading.

7. Keep carts clean and replace packing materials when they become dirty. Before moving the artifact, clean off the surface on which it is to be placed.

8. Whenever possible, gloves should be worn when handling art objects, as acids and salts from perspiration can damage many materials. If gloves are not used, hands should be washed thoroughly. Always wear cotton or thin plastic gloves when handling metalwork unless advised differently by supervisor.

9. Move and store objects and sculptures in their most stable position, usually the way they were designed to be viewed. If an object is top-heavy, it must be secured. It may be safe to lay it on its side to lower its center of gravity if provided with adequate support.

10. Do not attempt to move large or heavy sculpture and furniture unless someone well-versed in the subject is present and approves all arrangements. Each move is a unique problem. Do not assume that you know everything about moving heavy sculpture and furniture - no one does - contact an expert for each object.

11. Do not store heavy sculpture on the floor. This is the most difficult surface from which to pick it up, since there is no way to get under the piece.
B. Large Objects

The weight of the object will determine how many people are needed to move it. No one person should ever attempt to lift an object that weighs over 50 pounds. If more than one person is to move an object, the method should be understood in advance by all concerned.

C. Sculpture

A sculpture should be detached from its pedestal whenever possible and each part moved separately. When minor adjustments of position is necessary after the two have been reunited, the sculpture should be held steady as the pedestal is maneuvered. A pedestal must be sufficiently weighted at the base so as not to be top-heavy when the sculpture is put in place.

Rigging equipment is needed to move most large sculptures. If a sculpture is too large for a hydraulic lift and must be hoisted, clean blankets should be used to protect it from abrasion by ropes and chains. Avoid tipping a sculpture; not only is there danger of the weight getting out of control and the object toppling, but its base can be abraded. If possible, the sculpture should be kept vertical, in the position in which it was made to support its own weight; a horizontal position puts stress on areas not intended to bear weight. If a sculpture must be laid down, points of weakness, such as the neck of a figure, should be supported with padding.

D. Furniture

Do not push or pull furniture; pick it up and carry it. Pushing furniture along the floor, even for a few inches, puts tremendous strain on its structure; at the point, for instance, at which a leg is joined to the body, the piece might snap.

Check to see if large pieces were designed to be dismantled for transport. This is often the case with breakfronts and secretaries, which were constructed in two parts so that the upper section can be lifted off the base.

Before moving any piece of furniture, check all the joins to be sure that there are no loose or weakened areas. Furniture should never be grasped by handles, arms, or carved decoration, since it is unlikely that any projection will support the weight of the entire piece. In most cases, chairs should be lifted from the seat rail and not by the arms, which have often been repaired.

Marble or glass tops should be removed and transported separately. They are easier to handle in this manner and are less likely to crack along lines of fissure.

Doors and drawers of cabinets and chests should be locked or secured with soft woven tape so that they do not fall open unexpectedly. A cabinet or chest can then be lifted by two or more persons, each with one hand supporting the piece from below and with the other balancing it on the side.

Most furniture should be transported on flat trucks. Be sure that mirrors do not rest on carved decoration; if transported vertically, they should be treated in the same manner as the frames of paintings, with padding to support their weight at relatively flat, undecorated points.
E. Small and Medium-size Objects

Use two hands when moving small and medium-size objects. Keep a firm grip, but do not squeeze tightly. Fingerprints can become etched on metal objects. Wear gloves at all times when handling metal objects.

Do not pick up, move, or hold anything by handles, arms, or projecting decoration. Any projecting element of an old object is likely to have been repaired, and may consequently be weak and unable to sustain weight. Find the most solid area of the object for the initial grip. On a figure, look for a flat area around the waist. Grasp a vase or pot around the sides, after first carefully removing the lid if it has one; transport the object and its lid separately. A cup can be grasped with fingers inside, the thumb outside. For jewelry, find the least worked area, such as the ear wire of an earring. Medals and plaquettes should be held by the rim. When possible, remove a supporting mount from an object before lifting it, but take great care in separating art objects from mounts, since the objects can easily be damaged in the process.