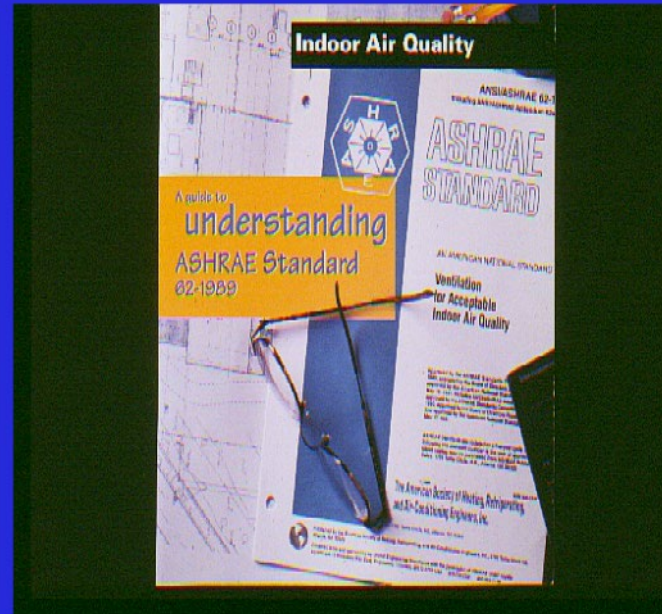




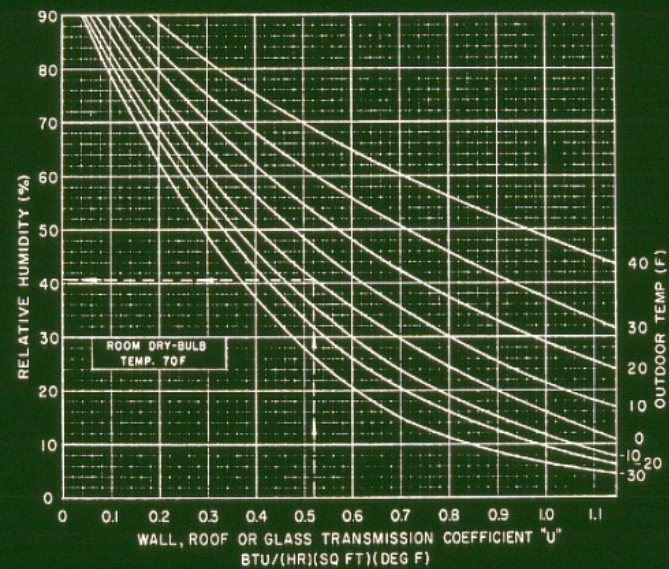
**WHEN LESS IS ALL YOU GOT!**  
**Budget-conscious solutions to protect  
collections on display and in storage.**

# 6 HEAT LOADS

- SOLAR
- LIGHTS
- PEOPLE
- TRANSMISSION
- INFILTRATION
- OUTSIDE AIR



**CHART 2—MAXIMUM ROOM RELATIVE HUMIDITY WITHOUT CONDENSATION**  
NO WALL, ROOF OR GLASS CONDENSATION

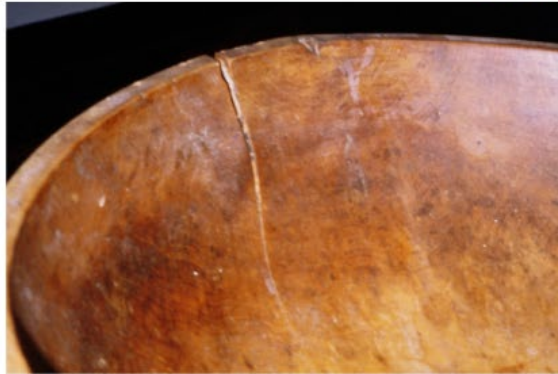


# When Less is All You've Got:

## Collections Protection and Preservation

- Threats
  - Light
  - Rapid changes in temperature and relative humidity
  - Pests
    - Attractants (dust/food) and breeding
  - Untrained handling
  - Theft and other loss (inadequate inventory control)

## Rapid changes and extremes in temperature and relative humidity cause damage



- Too little humidity causes cracking
- Too much causes mould and staining.
- Care in storage packaging, and engineering controls can prevent this damage.



## Pests breed and eat...collections

Attractants (dust/food) and breeding

- Food crumbs from receptions and in lunch rooms are attractants;
- Dust provides a cozy place for breeding.
- Dust and plant soil harbour mites that in turn serve as food for other insects that attack collections.
- Dust is highly abrasive to decorated surfaces, and improper cleaning methods may remove parts of the surface.
- This requires that staff be trained in diligent cleanliness in food areas (coffee rooms) and storage rooms, as well as after receptions.
- Staff training is the key to pest control.

## Untrained handling



- The frames of paintings left on the floor scratch the painting surfaces on which they lean.
- Careless handling pulls off weakened areas.

## Storage materials



- The coin on the right was stored in a slide storage page made of PVC (polyvinyl chloride), and has corroded as a result, destroying its numismatic value.
- Research has given us plentiful information on which materials are safe for use with collections; the SPNHC handbook is a good source for both materials and methods.
- The appended article “Good but Cheap” lists supplies and suppliers.



## The Collections: Management

- Includes a descriptive catalogue
  - Museum specific databases exist, of varying quality.
  - A good database will contain artifact display and travel histories so that curators can choose alternative artifacts.
  - These databases may be linked to gallery kiosks for additional information for visitors or for professional research.
  - They may be used for online information on the museum website. Investigate carefully before you commit to a database.
- Inventory control
  - Special bar codes or RFID tags can be used to monitor objects as they are moved from one place to another so that inventory locations are always up to date.
  - They can also be used in galleries by smartphones for more information.

## The Collections: Security

- Physical access control
  - Building design, access restrictions
- Inventory control in exhibit changes, collections movement, community use
  - Numbers on artifacts are essential: methods vary depending on artifact (India ink, tags)
  - RFID tags are now available; some types have wireless alarm systems
  - Consider the stability of adhesives used to attach tags;
  - More work is needed in this field.

## Emergency Preparedness Planning



- Proper emergency preparedness requires extensive group planning involving both management and staff.
- a free online emergency plan is available at: <http://dplan.org>
- However, the assistance of an experienced emergency preparedness planner can be invaluable.

## So what can you do when ... you can't afford to do anything?

- Use humidity-buffering materials to protect sensitive objects from environmental changes.
  - These may be acid-free boxes (a box within a box or closed cabinet is ideal, as it provides airspace buffers)
- Washed cotton fabric can be used as shelf covers and curtains
  - (cotton absorbs and desorbs up to 11% of its weight)
- Boxes of acid free cardboard can be covered with washed linen (in the designer's choice of colours) to buffer humidity changes inside cases
  - Linen absorbs and desorbs even more than cotton;
  - See the handout for supplier details.

# Long Range Conservation Plan

- Many of you already have these; if not apply for a grant and get a specialist to help you.
  - Evaluate your collections carefully before taking conservation action.
  - Survey the physical aspects of your museum to determine their impact on your collections.
  - Identify projects for improvements in storage and display, and know which items in your collection are both significant and in need of conservation treatment.
  - Thoughtfully prepare a prioritized long-range conservation plan to guide your actions. Become familiar with the techniques, tools, and materials that will help you to carry out the plan, and remember to update your Plan at least annually, and,
  - keep a list of the projects you have accomplished (with photographs!), so that on those dark days when it seems that you just can't do anything, you can look back and see how much you have in fact achieved.

■

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## An Essential Consideration:

Functional space design fits intended uses, not vice-versa

- Protection of Collections
  - Temperature/humidity control
  - Light control
  - Pest prevention
- Easy Housekeeping
- Workspace for collections
- Workshop/s for exhibits, outreach
  - Follow OSHA safety requirements