

HARPERS FERRY CENTER

WE SERVE THE PARKS

WET COLLECTION RECOVERY



National Park Service



Wet Collection Disaster Recovery

- 1 ***RESPONSE***
Prepare to deal with the affected collections
- 2 ***SALVAGE*** Return collections to a stable condition
- 3 Rehabilitation-Improve the condition of the collections after salvage

RESPONSE



National Park Service



SAFETY

- BUILDING STRUCTURAL INSTABILITY
- ELECTRICAL AND GAS SYSTEMS
- PHYSICAL DANGERS
- CARBON MONOXIDE
- CHEMICALS AND CONTAMINANTS
- MOLD
- ASBESTOS
- LEAD
- WILDLIFE

STRUCTURAL INSTABILITY

- WASHED OUT SOIL AT FOUNDATION
- CRACKS OR GAPS IN FOUNDATION
SAGGING ROOFS OR CEILINGS
- FLOORS THAT BOUNCE OR GIVE

ELECTRICITY AND GAS

- FLOODED ELECTRICAL CIRCUITS
- BROKEN OR LEAKING GAS LINES
- SUBMERGED FURNACES OR APPLIANCES
- FLAMMABLE MATERIALS

DO NOT DO THIS



PHYSICAL DANGERS

- HIDDEN NAILS, SHARP METAL, BROKEN GLASS, SPLINTERED WOOD
- SLIPPERY FLOORS
- HEAVY WATER LOGGED OBJECTS

CARBON MONOXIDE

- GENERATORS AND PUMPS SHOULD NOT BE USED INDOORS OR IN CONFINED SPACES
- SYMPTOMS OF CO POISONING ARE:
 - DIZZINESS
 - CHRONIC HEADACHES OR NAAUSEA
 - EXCESSIVE TIREDNESS
 - CHERRY RED SKIN COLOR

CHEMICALS / CONTAMINANTS

- CLEANING CHEMICALS
- PAINTS
- SOLVENTS
- PESTICIDES



MOLD

- AT 70° MOLD CAN OCCUR IN 48 HOURS IN DAMP ENVIRONMENT
- KEEP AIR MOVEMENT TO MINIMUM WHEN MOLD IS PRESENT
- AVOID OPENING AND CLOSING DOORS
- BLOCK VENTILATION SYSTEM TO PREVENT SPREAD
- HAVE MOLD TYPE IDENTIFIED FOR TOXICITY

REACTIONS TO MOLD CAN INCLUDE:

- TIGHTENING OF CHEST
- FLU-LIKE SYMPTOMS
- DEATH

ASBESTOS

- USED IN INSULATION, CEILINGS, FLOORS UNTIL 1970s
- USED IN NATURAL HISTORY SPECIMENS
- TAXIDERMY MOUNTS
- FINE ART PLASTER
- TEXTILES
- PATCHES IN ARCHEOLOGICAL CERAMICS
- AIRBORNE FIBERS CAN BE INHALED

ASBESTOS FIBER INHALATION SYMPTOMS

- SHORTNESS OF BREATH
- CHEST PAINS
- SWELLING IN ABDOMEN

LEAD

- HISTORIC STRUCTURES CAN HAVE LEAD PAINT
- WATER DAMAGE CAN CAUSE PAINT TO CRACK AND FLAKE, CREATING LEAD DUST

LEAD POISONING SYMPTOMS

FATIGUE

DEPRESSION

ABDOMINAL PAIN

ANEMIA

KIDNEY FAILURE

HEART FAILURE

WILDLIFE

- BE CAUTIOUS OF ANIMALS THAT CAN CARRY RABIES
- WATCH FOR ANIMALS IN DEBRIS AND TRASH
- WEAR PROTECTIVE CLOTHING
- WEAR TALL BOOTS AND GLOVES
- USE STICKS OR TOOLS TO MOVE DEBRIS
- NEVER EXPOSE HANDS OR FEET WHERE SNAKES MIGHT BE HIDING
- LEARN HOW TO IDENTIFY POISONOUS SNAKES
- AVOID SUDDEN MOVEMENT UPON SEEING A SNAKE

PREVENT SNAKES FROM ENTERING YOUR BUILDING BY:

- ELIMINATING THEIR FOOD SUPPLY
MICE AND RATS
- REMOVE HIDING PLACES
– DEBRIS AND TRASH
- BLOCK OPENINGS WHERE THEY
MIGHT ENTER

COPPERHEAD



COTTONMOUTH



SALVAGE REQUIRES PERSONAL SAFETY

- Be sure shots are current- tetanus, hepatitis, etc.
- Wear suitable gloves
 - Plastic and/or Leather for heavy work
 - Plastic (Nitrile or Latex) for handling collections
- Masks
- Eye protection
- Protective clothing

Doctors possible sources for gloves and masks

DO NOT DO THIS



National Park Service



DISPOSABLE PLASTIC GLOVES



RESIRATORS & MASKS

- RESPIRATOR
 - HEPA FILTER
 - FITTING REQUIRED
- MASKS WITH 99.97% FILTRATION



Mask criteria



EYE PROTECTION



PROTECTIVE CLOTHING

- Water repellent and washable best
 - Tyvec overalls
- Washable over-garments should include:

Shirt or Jacket

Pants

PROTECTIVE CLOTHING



Fisher Scientific Sources

- **Contact Fisher Scientific Customer Service** by [email](#), phone, or fax for product- or order-related questions.
- **General Customer Service 1-800-766-7000**
 - **FAX 1-800-926-1166**
- **Education Customers (K-12) 1-800-955-1177**
 - **FAX 1-800-955-0740**
- **Education Customers (College) 1-800-766-7000**
 - **FAX 1-800-926-1166**
- **HealthCare Customers 1-800-640-0640**
 - **FAX 1-800-290-0290**
- **Safety Customers 1-800-772-6733**
 - **FAX 1-800-772-7702**



MOLD



MOLD

Mold growing on the back side of wallpaper.



MOLD OUTBREAK

- MINOR
 - SMALL LEAK IN BUILDING
 - POWER IS OPERATIONAL
 - FEW ITEMS AFFECTED
 - IN-HOUSE SUPPLIES SUFFICIENT
- MODERATE
 - LARGE LEAK, BACK UP IN BUILDING
 - POWER MAY BE INTERRUPTED
 - LARGE NUMBER IF ITEMS AFFECTED
 - EXTRA STAFF NEEDED
 - COLD STORAGE NEEDED
- MAJOR
 - FIRE AND/OR FLOOD
 - LOST POWER
 - ENTIRE COLLECTIONS AFFECTED
 - RESPONSE WAITS FOR SAFETY CHECKS
 - VOLUNTEERS AND CONTRACTOR HELP NEEDED

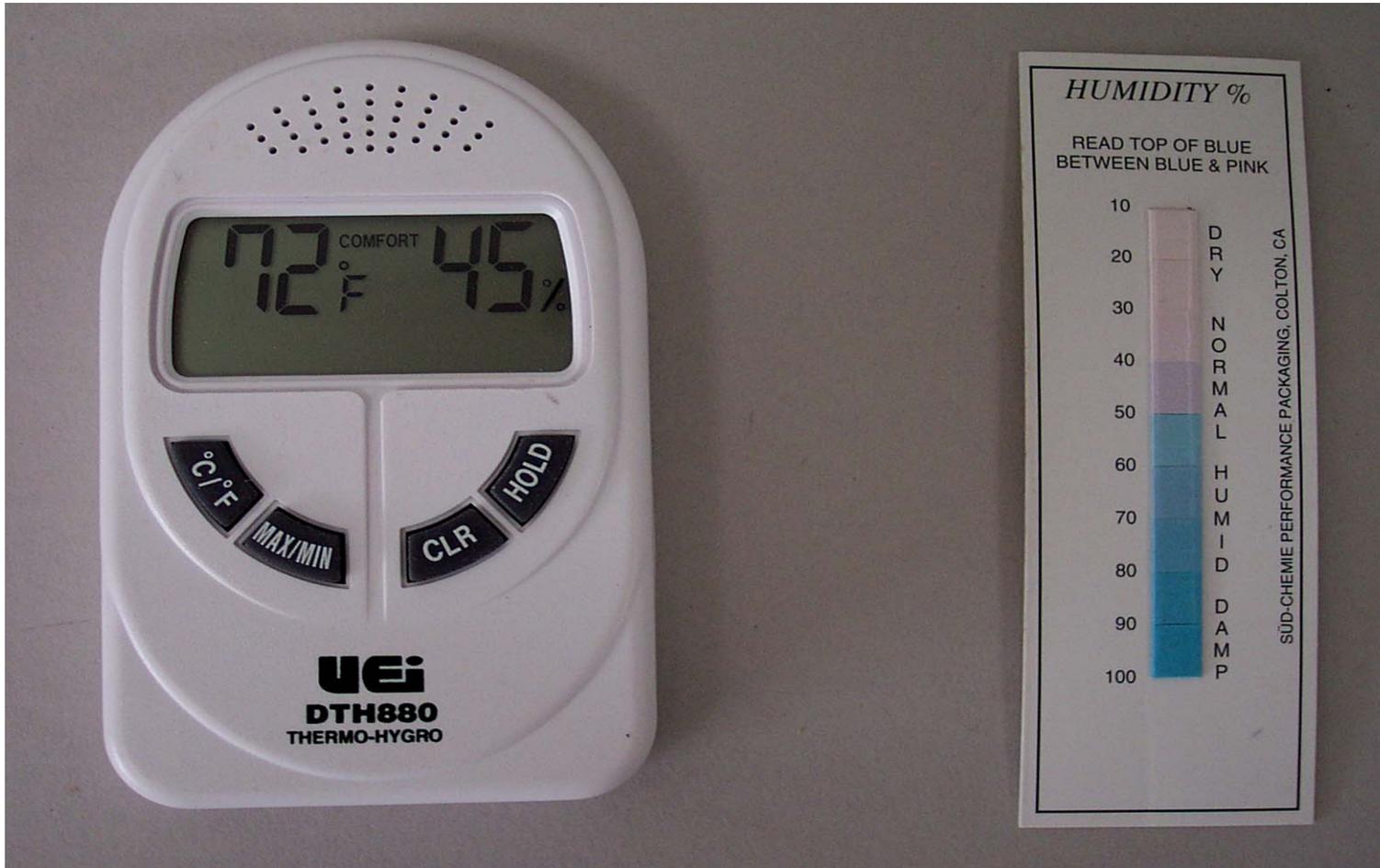
MOLD FIRST RESPONSE PROCEDURES

- *REDUCE HUMIDITY*
- *MYCOLOGIST*
- *PERSONAL SAFETY WEAR*
- *DRY COLLECTIONS OR FREEZE*

GEAR UP!



MEASURE HUMIDITY



MYCOLOGIST

- Robert B. Simmons
- Ph.D., Biological Imaging Facility
- Department of Biology
- Georgia State University
- 404-651-3138
- biorbs@panther.gsu.edu



MOLD

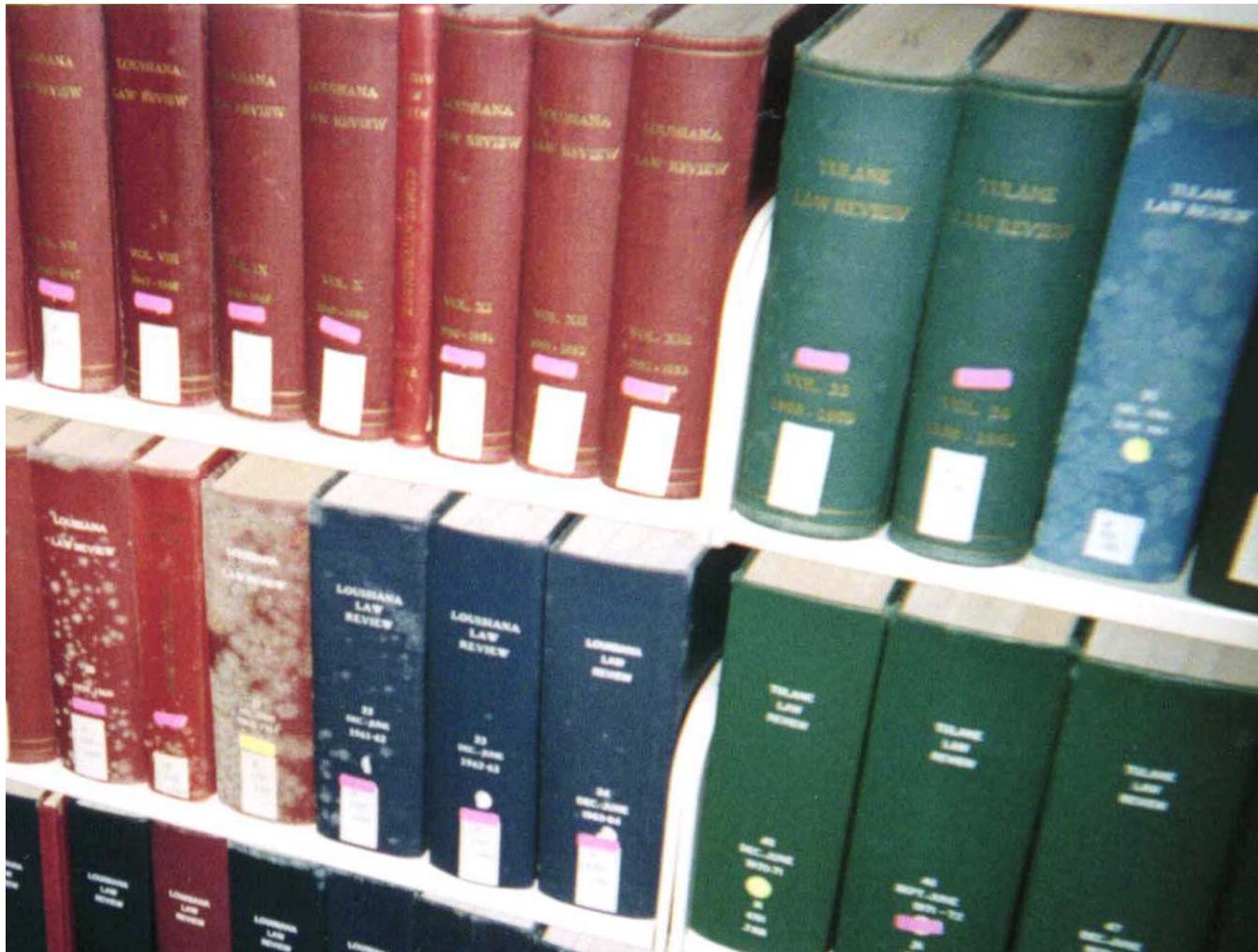
- ISOLATE SINGLE MOLDY ITEMS FROM COLLECTION
- BOX ENCLOSURE BETTER THAN PLASTIC
- LABEL BOX (Contents, mold present)



ISOLATED ITEM

- **DRY SEPARATE FROM COLLECTION**
- **TAKE TO A CONSERVATOR
IMMEDIATELY**
- **FREEZE IT**

MULTIPLE OBJECTS



DRYING BOOKS



Circulate air to dry indirectly
-do not aim fans at objects



WHEN MATERIALS ARE DRY

Call conservator for treatment

Minor damage:

Use vacuum with HEPA filter to clean

Nilfisk HEPA vacuum



WET PAPER BASED MATERIALS



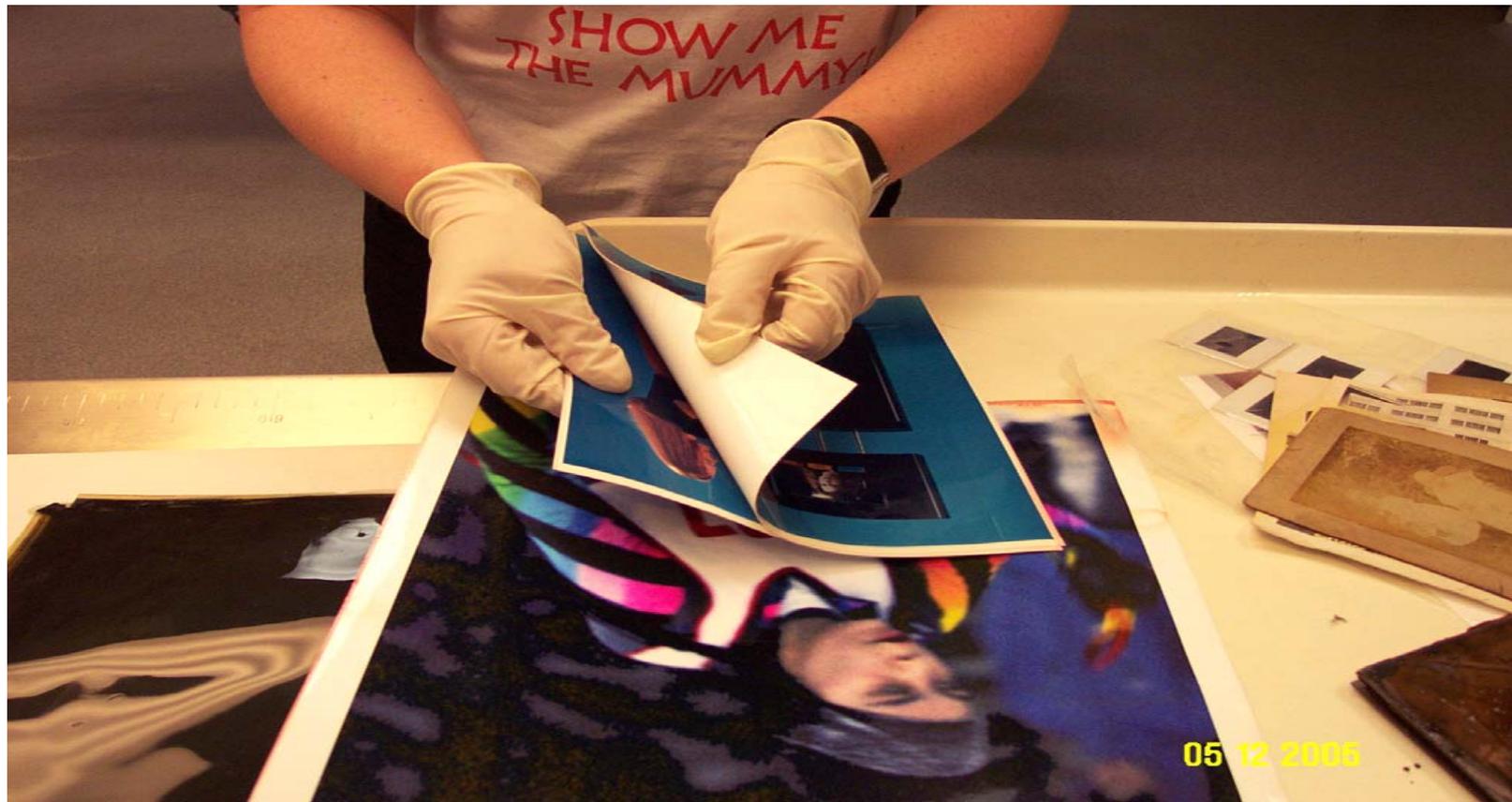
WET PAPER BASED MATERIALS

- TWO OPTIONS:
- DRY IMMEDIATELY
- FREEZE

DO NOT FREEZE THESE MATERIALS

- Cased photographs
- Glass negatives
- Glass lantern slides
- Computer tapes
- Floppy discs
- Sound and video tapes

Stable materials -separate individual sheets Unframe stable materials



Rinse stable paper materials

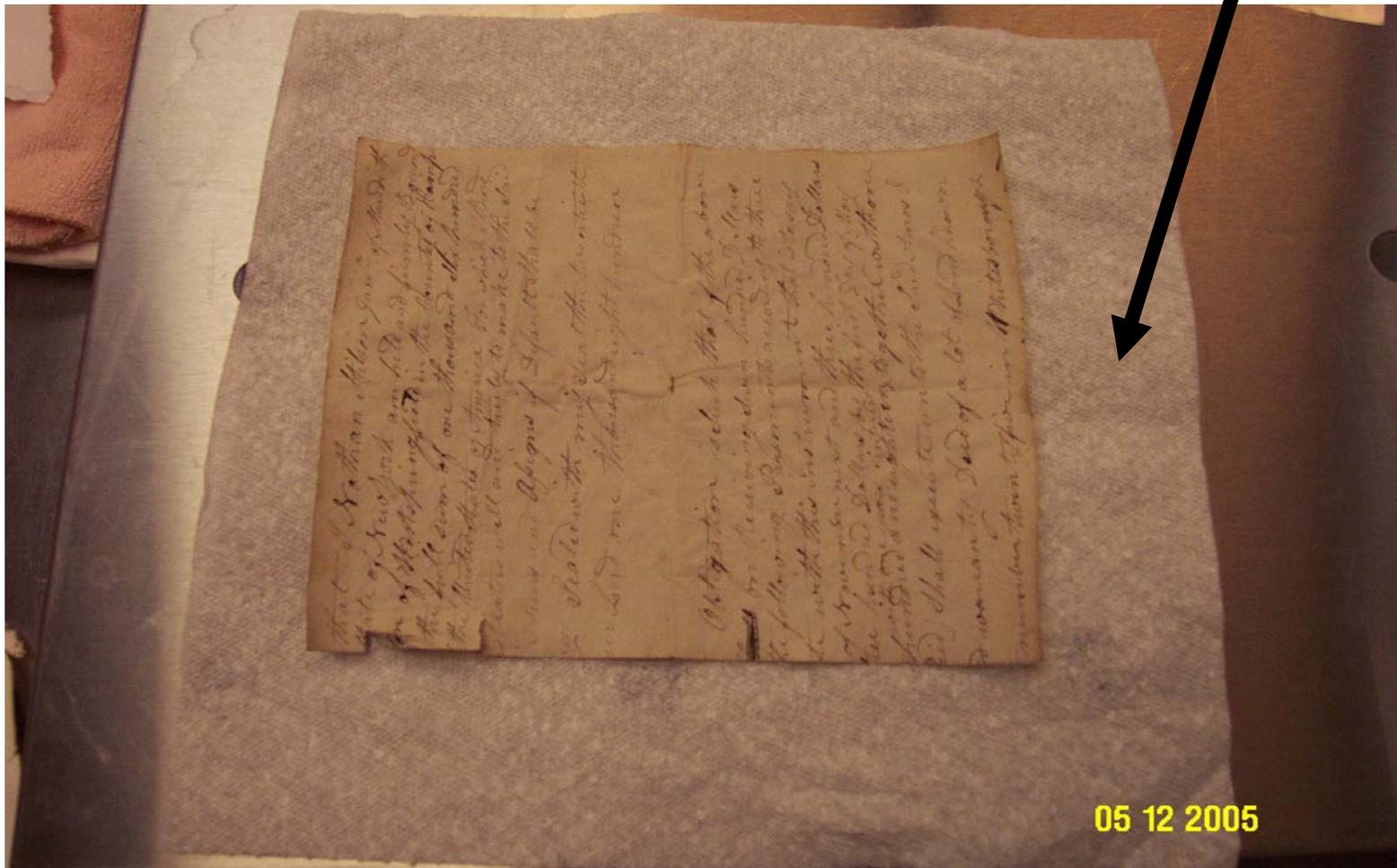


OPEN ENCAPSULATIONS

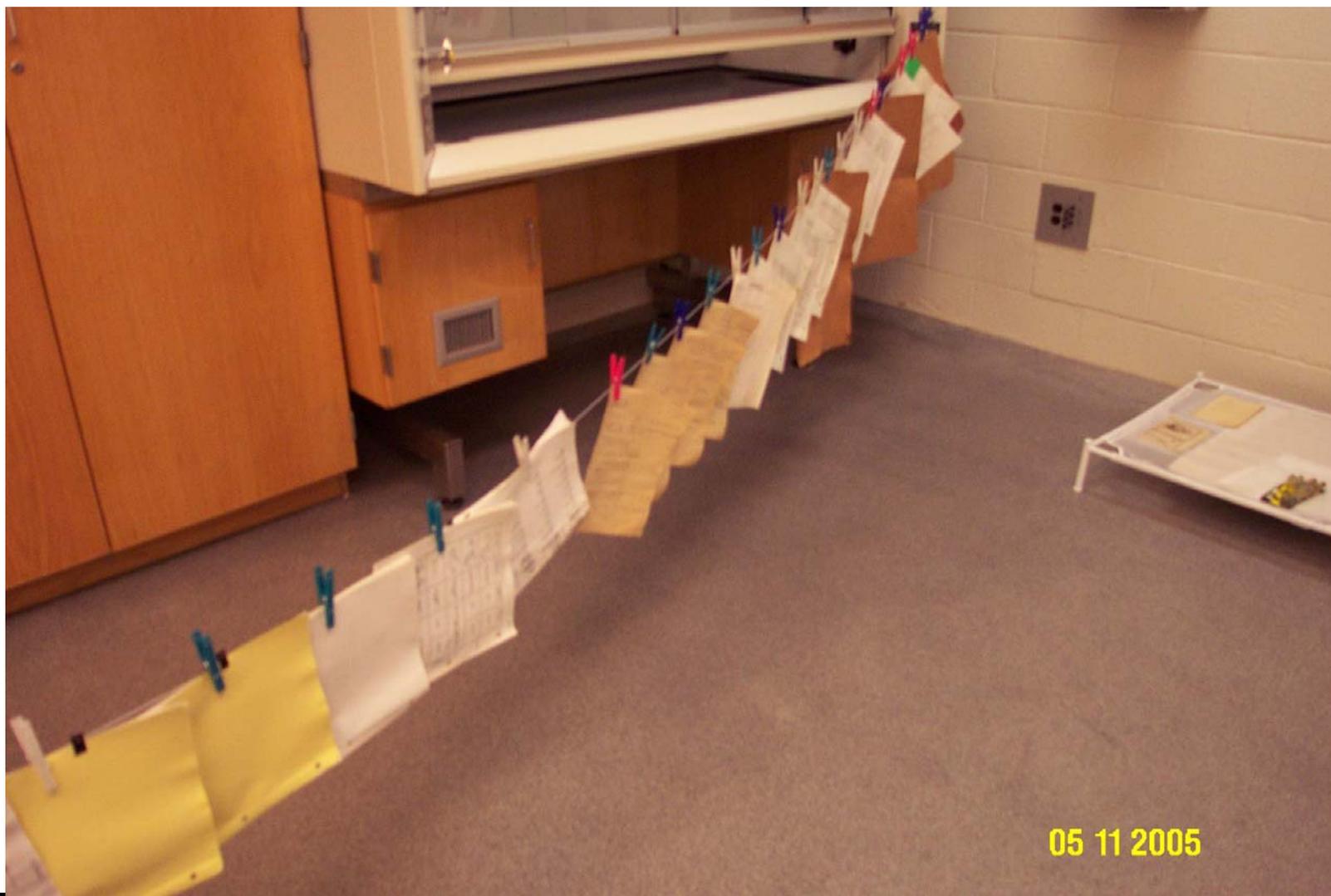


Stable materials -dry individual sheets flat

Clean material as support



Hanging groups to dry



WET PHOTOGRAPHS

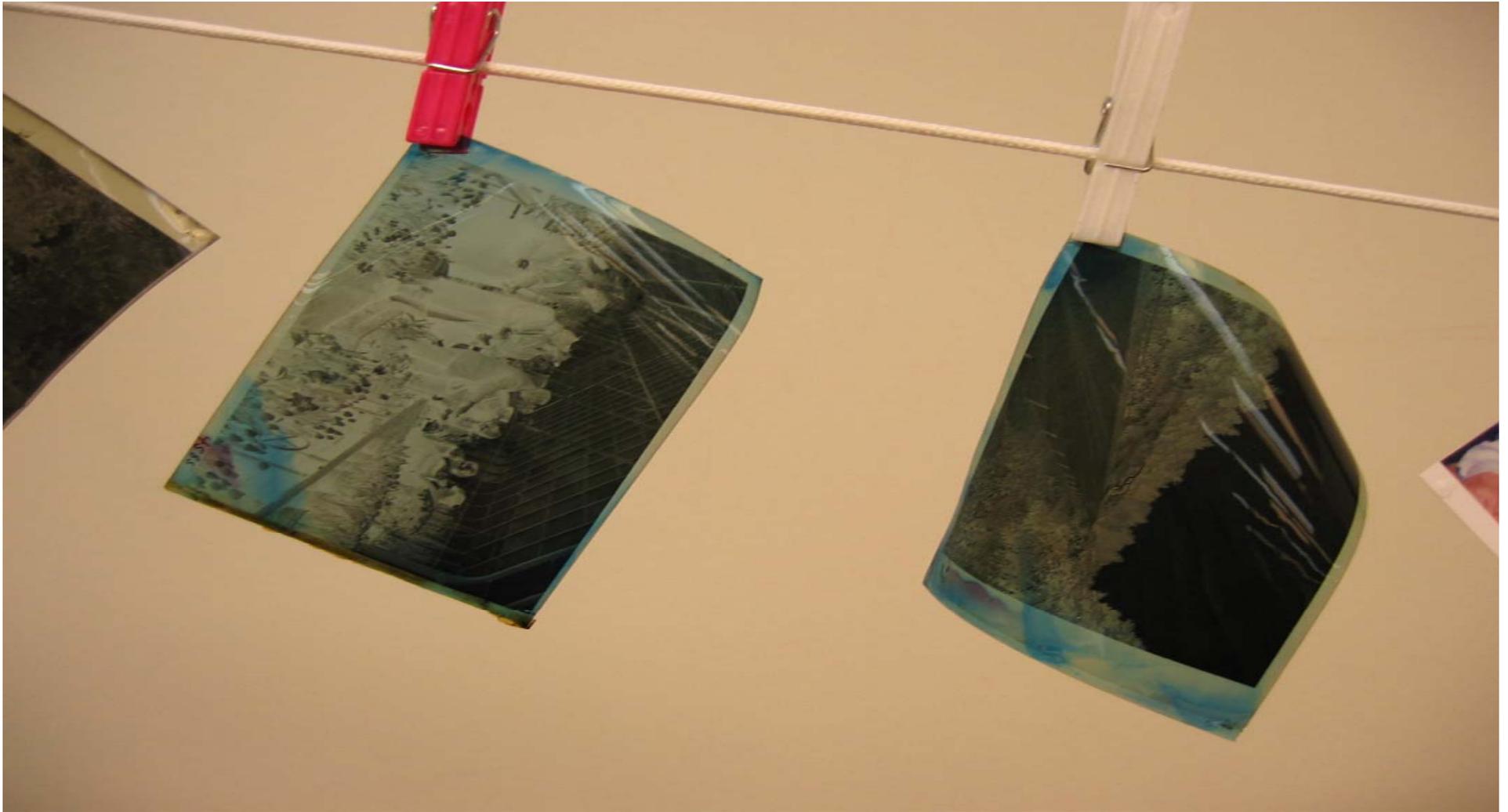
rinse, separate and dry



Photographs can be hung to dry



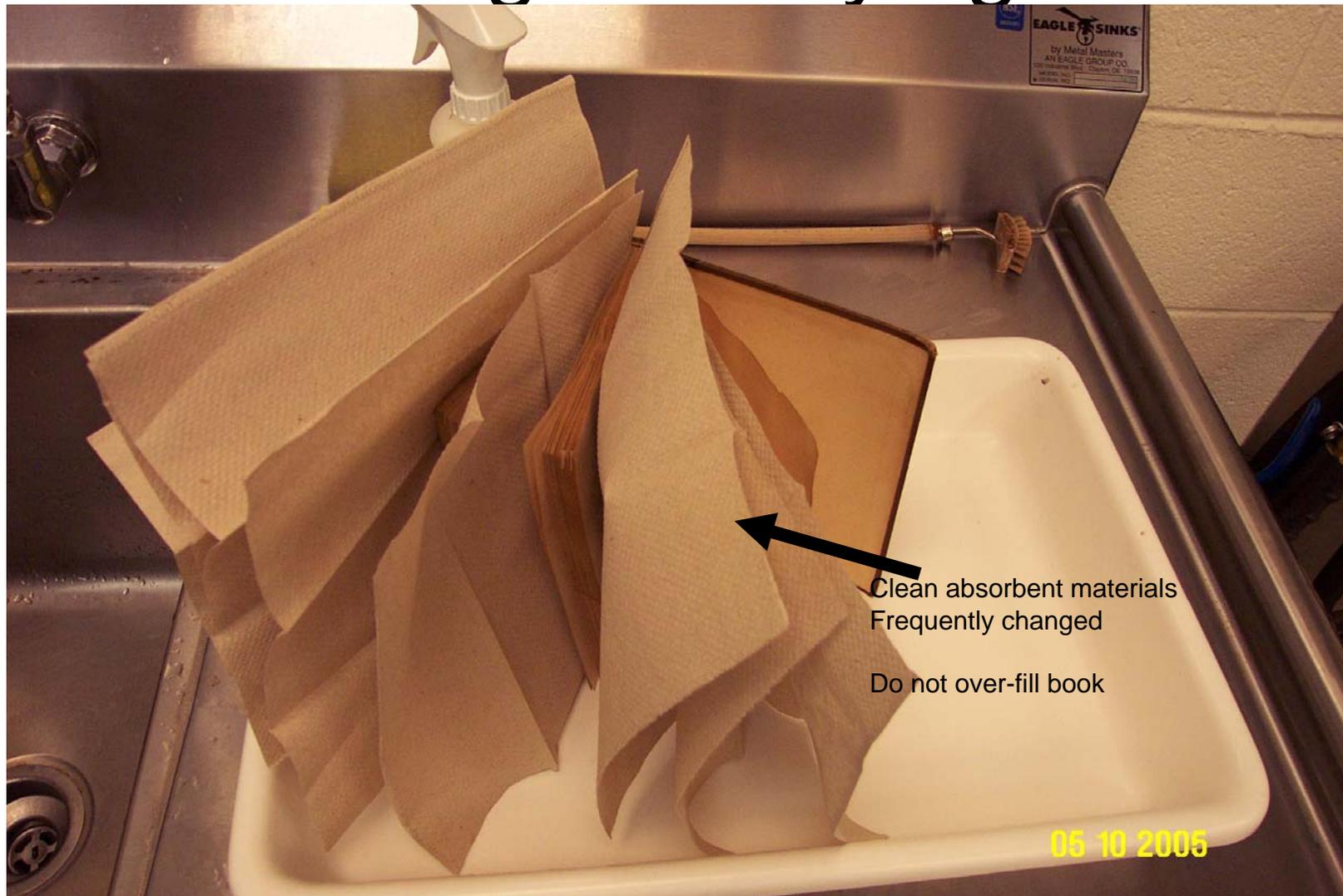
Negatives can be hung to dry



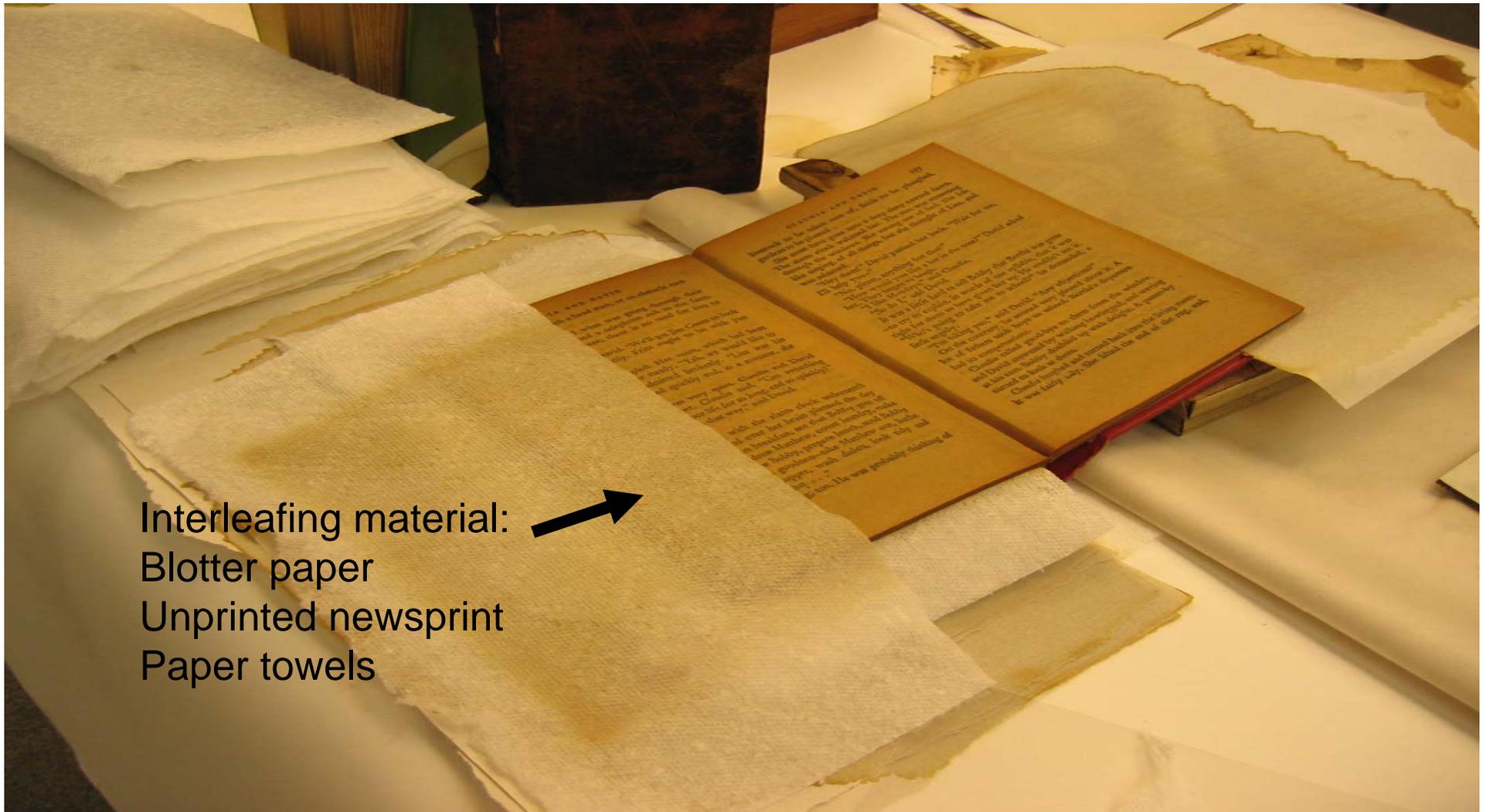
Air drying books



Interleafing and drying books



Interleafing with clean, absorbent materials CHANGE INTERLEAFING REGULARLY



Interleafing material:
Blotter paper
Unprinted newsprint
Paper towels



FREEZING BOOKS

DO NOT FREEZE LEATHER AND VELLUM BINDINGS

- MAJOR DISASTER CHOICE
- BUYS TIME FOR:
 - ORGANIZATION PERSONNEL
 - DECISION MAKING TIME
 - FUND RAISING TIME

FREEZING BOOKS

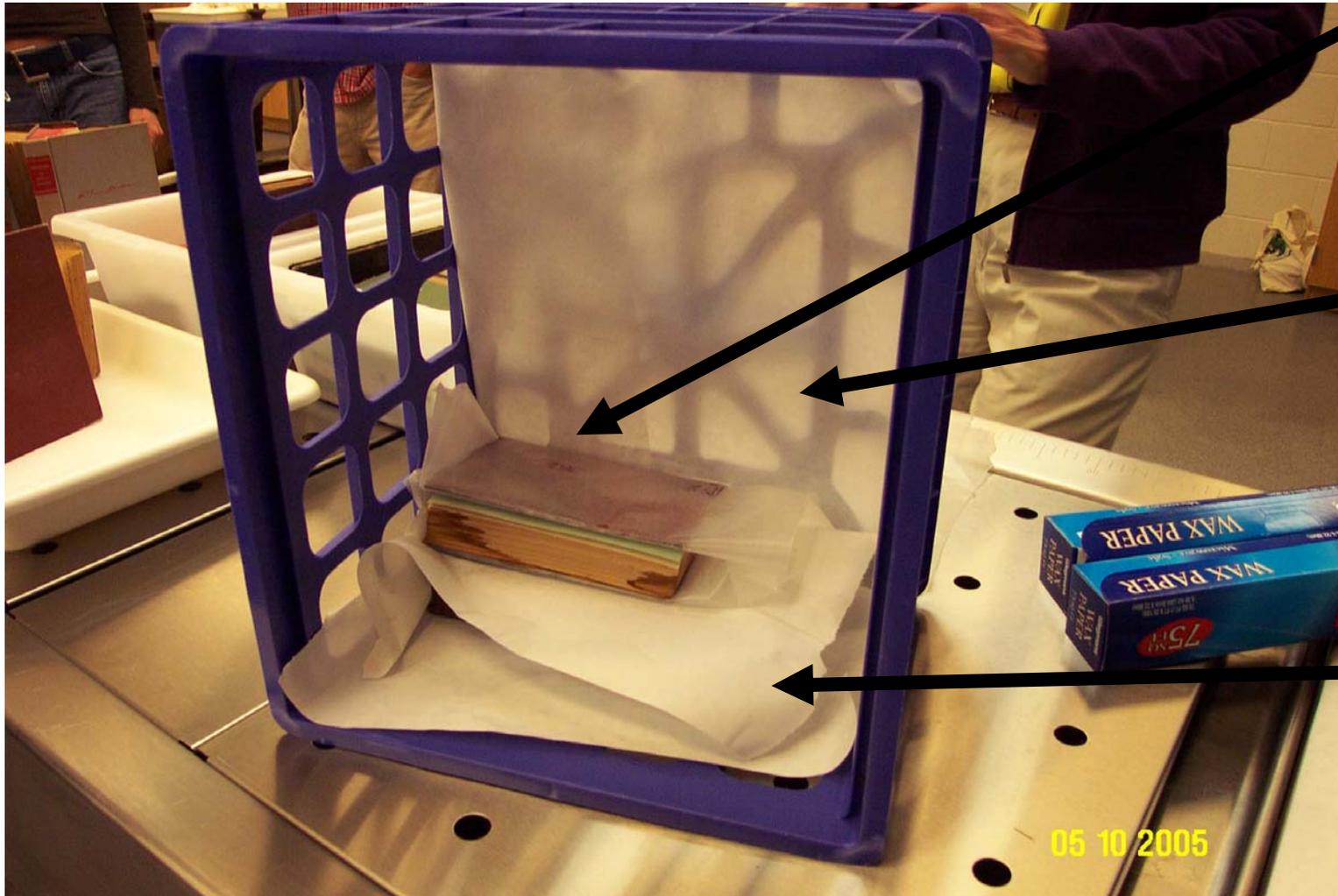
Separation sheets



Separation sheet material:
Wax paper
Butcher paper



FREEZING BOOKS



Spine of book
At bottom of box

Clean paper on
Bottom of box

Simply wrapped
book

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FREEZING BOOKS ONE LAYER PER BOX



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FROZEN BOOKS



DRYING AFTER FREEZING

MATERIALS IN QUANTITY:

- Vacuum Freeze Drying
 - Sublimation technique
 - Less distortion
 - NOT for leather and vellum bindings
- Vacuum Thermal Drying
 - Heat used to dry
 - Coated paper BLOCKS
 - Distortion is problem
 - NOT for leather and vellum bindings, photographs

DRYING AFTER FREEZING

- INDIVIDUAL ITEMS:
 - Thaw and dry
 - Conservator thaw and treat

FILM AND PHOTOGRAPH RECOVERY

Not in handout

EXCELLENT SOURCE FOR CONTRACTORS

Northeast Document Conservation Center

100 Brickstone Square

Andover, MA 01810-1494

Tel: (978) 470-1010

Fax: (978) 475-6021

<http://www.nedcc.org>

ADDITIONAL POSSIBLE CONTRACTOR

Reiger

Photographic and Digital Imaging Services

16021 Industrial Dr.

Gaithersburg, MD 20877

301-869-8300



AUDIO TAPE RECOVERY

Not in handout

Excellent source for contractor information:

SOLINET

1438 West Peachtree Street NW • Suite 200

Atlanta, GA 30309-2955

1.800.999.8558

Safe Sound Archive

21 West Highland Avenue

Philadelphia, PA 19118-3309

Telephone: (215) 248-2100

Fax: (215) 242-2177

Email: georgeblood@safesoundarchive.com

<http://www.safesoundarchive.com>

Smolian Sound Studios

1 Wormans Mill Court

Frederick, MD 21701

Telephone: (301) 694-5134

Email: smolian@soundsaver.com

<http://www.soundsaver.com>



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MAGNETIC MEDIA

National Park Service



MAGNETIC MEDIA SALVAGE AUDIO & VIDEO TAPES

- Can stay wet for days
- Rinse in clean tap water
- Air dry
- Vacuum dry without heat
- Tapes can be removed from cassettes, unwound and dried
- Re-record after drying

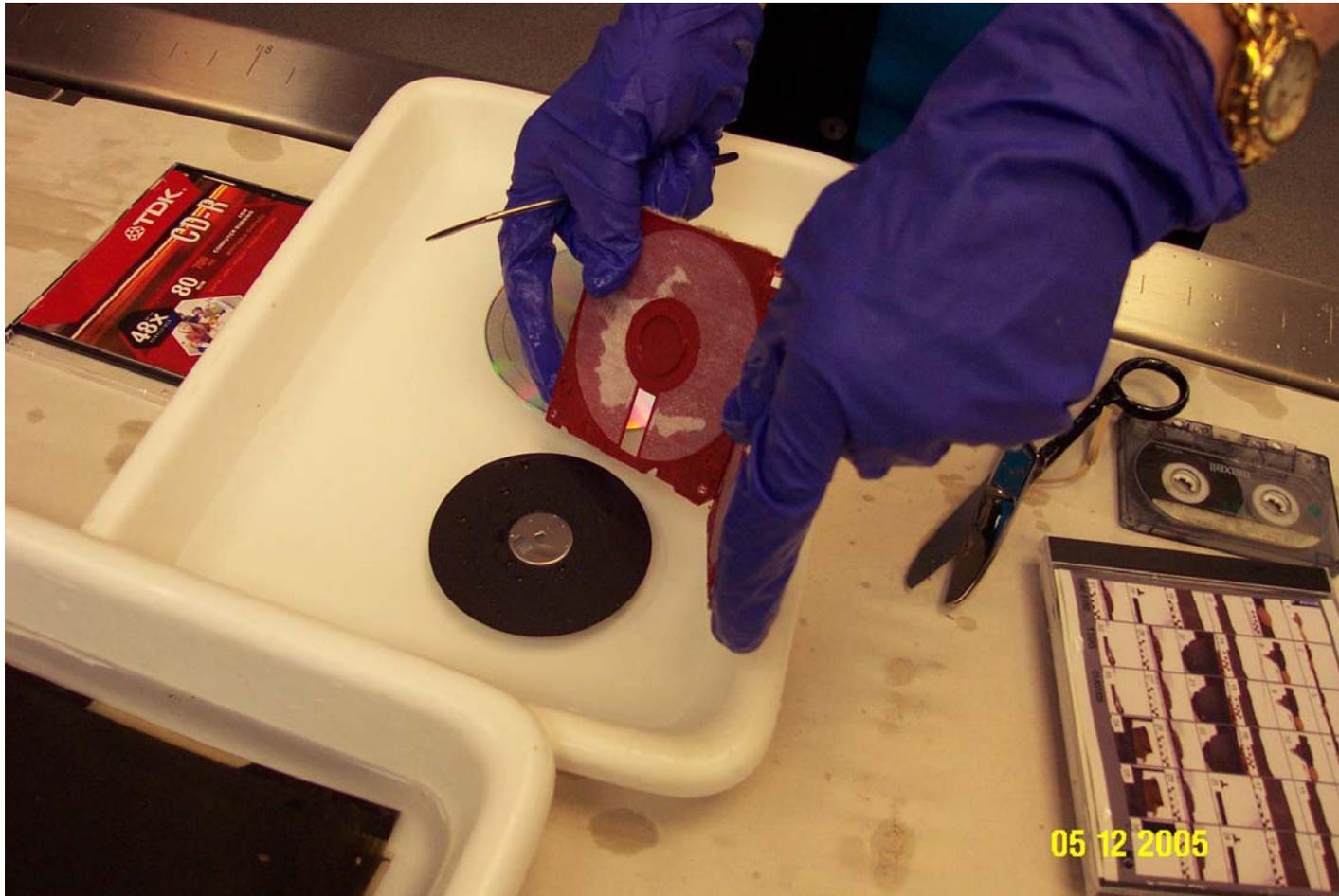
MAGNETIC MEDIA COMPUTER

- Check for BACKUPS
- If NO backups
 - Air dry
 - Vacuum dry without heat
 - Floppy discs can be taken out of case and rinsed before drying (risky but possible)

Floppy disc- open case



Floppy disc- rinse and place in new case



MAGNETIC MEDIA SALVAGE COMPANIES

- **SPECS Brothers**
P.O. Box 5
Ridgefield Park, NJ 07660
USA
(800) - 852 7732, (201) - 440 6589
<http://www.specsbros.com>
Disaster Recovery, Reformatting Services, magnetic media restoration and reformatting
- **VidiPax**
30-00 47th Avenue
6th Floor
Long Island, NY 11101
USA
(800) - 653 8434, (718) - 482 7111
<http://www.vidipax.com>
Disaster Recovery, Reformatting Services, consulting, magnetic media restoration and reformatting

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SALVAGE EQUIPMENT

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DEPENDS ON SIZE OF PROBLEM

- SMALLER SALVAGE EQUIPMENT:
- FANS
- WET/DRY VACUUM
- DEHUMIDIFIERS

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LARGE SALVAGE EQUIPMENT

- DRYING EQUIPMENT
- WALK IN FREEZERS
- REFRIGERATED OR FREEZER TRUCKS
- CONTRACTORS



Large Drying Equipment



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LARGE EQUIPMENT



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SOME SOURCES FOR LARGE SALVAGE PROJECTS

- **Belfor USA**
185 Oakland Avenue
Suite 300
Birmingham, MI 48009-3433
USA
(800) - 856 3333, (218) - 594 1144
<http://www.belforusa.com>
Disaster Recovery, Environmental Control, dehumidification, magnetic media recovery, mold removal, vacuum freeze drying
- **Blackmon-Mooring-Steamatic Catastrophe, Inc (BMS CAT)**
303 Arthur Street
Fort Worth, TX 76107
USA
(800) - 433 2940
<http://www.bmscat.com>
Disaster Recovery, fire and water damage recovery, mold removal
- **Document Reprocessors**
5611 Water Street
Middlesex, NY 14507
USA
(800) - 437 9464, (585) - 554 4500
<http://www.documentreprocessors.com/>
Disaster Recovery, cleaning, fumigation, mold removal, smoke removal, vacuum freeze drying

SOME SOURCES FOR LARGE SALVAGE PROJECTS

- **Midwest Freeze-Dry, Ltd**
7326 North Central Park
Skokie, IL 60076
USA
(847) - 679 4756
<http://www.midwestfreedryltd.com>
Conservation and Preservation, Disaster Recovery, deacidification, fumigation, vacuum freeze drying
- **Munters Moisture Control Services**
79 Monroe Street
P.O. Box 640
Amesbury, MA 01913
USA
(978) - 241 1100
<http://www.muntersamerica.com>
Disaster Recovery, dehumidification, mold removal, vacuum freeze drying

PRESERVATION

INFORMATION



- **PARTNER FOR THIS TRAINING:**

- SOLINET (Southeastern Library Network)
WEBSITE

<http://www.solinet.net>

- Click on PRESERVATION AND ACCESS
- Click on DISASTER MITIGATION AND RECOVERY INFO
- Click on LEAFLETS
- Click on DISASTER RECOVERY SERVICES AND SUPPLIES

CONSERVATORS AND PRESERVATION SERVICES:
Regional Alliance for Preservation (RAP)

<http://www.rap-arcc.org>

Amigos Library Services, Inc.

14400 Midway Road
Dallas, Texas 75244-3509
Tel: 972-851-8000
Toll Free: 800-843-8482
FAX: 972-991-6061
Email: amigos@amigos.org
URL: www.amigos.org

Contact: Shelby Sanett, Imaging & Preservation Services Manager
Education and Training, Preservation Management, Site surveys, Consultations

Balboa Art Conservation Center

PO Box 3755
San Diego, CA 92163-1755
Tel: 619-236-9702
Fax: 619-236-0141
Email: info@bacc.org
URL: www.bacc.org

Contact: Janet Ruggles, Director
Paintings, Paper, Photography, Analytical, Frames



Regional Alliance for Preservation (RAP)

Conservation Center for Art and Historic Artifacts

264 South 23rd Street
Philadelphia, PA 19103

Tel: 215-545-0613

Fax: 215-735-9313

Email: ccaaha@ccaaha.org

URL: www.ccaaha.org

Contact: Virgilia Rawnsley, Director of Preservation Services
Books, Paper, Parchment, Photographs

The Gerald R. Ford Conservation Center

Nebraska State Historical Society

1326 South 32nd Street

Omaha, NE 68105

Tel: 402-595-1180

Fax: 402-595-1178

Email: grfcc@mail.state.ne.us

URL: www.nebraskahistory.org/fordcenter

Contact: Julie Reilly, Associate Director and Chief Conservator
Objects, Paper, Textiles, Photographs, Books, Frames, Archaeology, Sculpture



Regional Alliance for Preservation (RAP)

Intermuseum Conservation Association

2915 Detroit Avenue
Cleveland, OH 44113

Tel: 216-658-8700

Fax: 216-658-8709

Email: ica@ica-artconservation.org

URL: www.ica-artconservation.org

Contact: Albert Albano, Executive Director

Paintings, Paper, Photographs, Books, Objects, Textiles, Frames, Analytical, Fine Art Storage

Midwest Art Conservation Center

(Formerly the Upper Midwest Conservation Association)

2400 3rd Avenue South

Minneapolis, MN 55404

Tel: 612-870-3120

Fax: 612-870-3118

Email: info@preserveart.org or umca@qwest.net

URL: www.preserveart.org

Contact: Neil C. Cockerline, Director of Preservation Services

Paintings, Paper, Objects, Textiles, Analytical

National Park Service, Division of Conservation

Harpers Ferry Center, Division of Conservation

PO Box 50

Harpers Ferry, WV 25425

Tel: 304-535-6139

Fax: 304-535-6055

Email: Jane_Merritt@nps.gov

URL: www.nps.gov/hfc/conservation

Contact: Jane Merritt, Associate Manager for Media Assets

Paper, Textiles, Objects/Ethnographic, Wooden Artifacts, Analytical



Regional Alliance for Preservation (RAP)

Northeast Document Conservation Center

100 Brickstone Square

Andover, MA 01810

Tel: 978-470-1010

Fax: 978-475-6021

Email: nedcc@nedcc.org

URL: www.nedcc.org

Contact: Lori Foley, Director of Field Service

Books, Paper, Photographs, Digitization

Peebles Island Resource Center, Bureau of Historic Sites

New York State Office of Parks, Recreation & Historic

Preservation, Peebles Island Resource Center

PO Box 219

Waterford, NY 12188

Tel: 518-237-8643 ext, 3225, 3226

Fax: 518-235-4248

Email: John.Lovell@oprhp.state.ny.us

URL: www.nysparks.com

Contact: John Lovell, Assistant Director

Frames, Paintings, Paper, Objects, Textiles, Furniture, Archaeology



Regional Alliance for Preservation (RAP)

The Southeastern Library Network, Inc.

Preservation Services

1438 West Peachtree Street, NW, Suite 200

Atlanta, GA 30309-2955

Telephone: 404-892-0943

Toll Free: 800-999-8558

Fax: 404-892-7879

Email: tmason@solinet.net

URL: www.solinet.net

Contact: Tina Mason, Preservation Education Officer

Education and Training, Preservation Management, Site Surveys, Consultations

Straus Center for Conservation

Harvard University Art Museum

32 Quincy Street

Cambridge, MA 02138

Tel: 617-495-2392

Fax: 617-495-0322

Email: lie@fas.harvard.edu

URL: www.artmuseums.harvard.edu

Contact: Henry Lie, Director

Paintings, Paper, Objects, Analytical



Regional Alliance for Preservation (RAP)

[The Textile Conservation Center](#) [American Textile History Museum](#)

491 Dutton Street
Lowell, MA 01854
Tel: 978-441-1198, x256
Fax: 978-441-1412
Email: vkruckebert@athm.org
URL: www.athm.org
Contact: Vicky Kruckeberg, Director
Textiles, Analytical

[The Textile Conservation Workshop](#)

3 Main Street
South Salem, NY 10590
Tel: 914-763-5805
Fax: 914-763-5549
Email: textile@bestweb.net
URL: www.rap-arcc.org/welcome/tcw.htm
Contact: Patsy Orlofsky, Director
Textiles, Analytical

[Williamstown Art Conservation Center](#)

225 South Street
Williamstown, MA 01267
Tel: 413-458-5741
Fax: 413-458-2314
Email: wacc@williamstownart.org
URL: www.williamstownart.org
Contact: Thomas J. Branchick, Director, Conservator of Paintings
Paintings, Paper, Objects, Furniture, Frames, Analytical



INFORMATION SOURCES

- AMERICAN INSTITUTE FOR CONSERVATION

– <http://aic.stanford.edu>

- AMERICAN ASSOCIATION OF MUSEUMS

<http://www.aam-us.org/aamlatest/news/hurricane.cfm>



INFORMATION SOURCES

AMERICAN LIBRARY ASSOCIATION

<http://www.ala.org>

SOCIETY OF AMERICAN ARCHIVISTS

<http://www.archivists.org>

HERITAGE PRESERVATION

<http://www.heritagepreservation.org>



INFORMATION SOURCES

NATIONAL TRUST FOR HISTORIC PRESERVATION

<http://www.nationaltrust.org>

“Treatment of Flood-Damaged Older and Historic Buildings”

MINNESOTA HISTORICAL SOCIETY

<http://www.nationaltrust.org>

Good page with checklists, instructions



GRANTS

- INSTITUTE OF MUSEUM AND LIBRARY SERVICES

<http://www.ims.gov>

- IMLS announced that the application deadline for the agency's [Conservation Project Support](#) grant program has been extended from October 1 to November 1 for museums in the counties that have been declared disaster areas by the Federal Emergency Management Agency.

GRANTS

NATIONAL ENDOWMENT FOR THE
HUMANITIES

<http://www.neh.fed.us>

NEH has special emergency grants for
institutions

GRANTS

- Heritage Preservation
 - Conservation Assessment Program (CAP)
- For affected counties in LA, MS, and AL
- Grant deadline changed from December 1, 2005 to -
- January 1, 2006
- <http://www.heritagepreservation.org>

HARPERS FERRY CENTER

WE SERVE THE PARKS

DISASTER RECOVERY ORGANIZATION

National Park Service



STEPS TO PREPARING FOR DISASTER RECOVERY

To Do:	Completed (date)	Still needed (date)
Assess all risks and threats		
Reduce or remove risks		
Identify high priority collection objects		
Establish collection disaster response team		
Establish support networks		
Prepare the Disaster Response Plan		
Prepare the Disaster Recovery Plan		
Assemble recovery cart(s)		
Train all staff		
Review the plan		
Update plans/provide refresher training/train new staff (annually)		
Inventory recovery supplies (annually)		

EMERGENCY SUPPLIES

General Supplies

- Emergency Response Plan
- Emergency phone Lists
- Disposable cameras
- Clipboard and documentation forms
- Pencils, permanent ink marking pens
- Emergency Response Wheel* and reference documents
- Scissors (4 pairs)
- Door wedges
- Object tags

EMERGENCY SUPPLIES

Safety Supplies

- Caution tape and signs
- First Aid kit
- Anti-bacterial towelettes
- Respirators
- Protective clothing, boots
- Work gloves
- Latex and Nitrile gloves (sm., med.)
- Safety goggles

EMERGENCY SUPPLIES

Supplies for Removing Water

- Cellulose sponges
- Squeegee with handle
- Sponge mops
- Bucket
- Broom
- Dust pan and brush
- Rags
- Terrycloth toweling
- Paper towels
- Disposable baby diapers
- White blotting paper

EMERGENCY SUPPLIES

Lights and Power

- Flashlight and spare batteries
- Work lights, stands, extra bulbs
- Electrical cords, power strips
- String

EMERGENCY SUPPLIES

Tools

Tool box

- _____ hammer
- _____ slot screwdrivers
- _____ phillips screwdrivers
- _____ pliers
- _____ crow bar
- _____ vice grips
- _____ utility knives with extra blades

EMERGENCY SUPPLIES

Containers, Supports, Wrapping Materials

- Roll of 4-mil clear polyethylene
- 2 rolls duct tape with dispensers
- Corrugated polypropylene boxes
- Clear polyethylene bags
- Heavy-duty garbage bags
- Nylon cable ties
- 20 12-inch wood blocks

OBJECT RECORD FORM

National Park Service

Conserve O Gram 21/2

Disaster Recovery Object Record Form

Acc. #	Object Name	Type of Damage	Treatment Needed	Moved to (location)



CONSERVATION SUPPLY SOURCES

Archivart

www.archivart.com

201-804-8986

Conservation Resources

www.conservationresources.com

800-634-6932

Hollinger

www.hollingercorp.com

703-671-6600



CONSERVATION SUPPLY SOURCES

- Light Impressions
- www.lightimpressionsdirect.com
- 800-828-6216

- University Products
- www.universityproducts.com
- 800-628-1912

- Gaylord
- www.gaylord.com
- 800-448-6160



- FEMA mold information
- <http://www.fema.gov/hazards/floods/mold.shtm>

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RECOVERY TECHNIQUES

1. Object Collections

- Organic Materials
- Inorganic Materials

2. Natural History Collections

3. Textiles

1.Object Collections



Organic Materials





Organic Materials

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Skin & Leather

Tanned	Treat within 24 hours.	Handle with care—wet leather is fragile.	Pad with towel- ing to maintain shape and pro- vide support.	Air dry. Use fans.
Semi-tanned or Un-tanned	Treat within 24 hours.	Handle with care—may be fragile when wet.	Pad with towel- ing to maintain shape and pro- vide support.	Air dry. Use fans.

Salvage At A Glance Part III: Object Collections

Conserve O Gram Number 21/6





Organic Materials

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Wood

	Treat within 24 hours.	Lift from bottom of object.	Wrap in absorbent materials.	Air dry slowly.
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Basketry

	Treat within 24 hours.	Lift from bottom of object.	Pad with towel-ing to maintain shape.	Air dry slowly. Keep lids on.
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Organic Materials

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Bone & Ivory

	Treat within 24 hours.	Handle with care—wet objects may be fragile.	Wrap individually in absorbent material.	Air dry. Use fans.
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Shell

	Treat within 24 hours.	Handle with care—wet objects may be fragile.	Wrap individually in absorbent material.	Air dry. Use fans.
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1.Object Collections



Inorganic Materials

Inorganic Materials

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
Ceramics				
Sun baked or Terracotta	Treat within 24 hours to prevent disintegration and loss of surface.	Watch for cracking or peeling. Blot dry—do not rub.	Wrap with paper towels or other absorbent material.	Air dry. Use fans.
Low-Fired Ceramics	Treat within 48 hours.	Watch for cracking or peeling. Pat dry—do not rub.	Wrap with paper towels or other absorbent material.	Air dry. Use fans.
High-Fired Ceramics	Treat after less stable materials.	If the surfaces are stable, blot with lint-free towels.	Wrap with paper towels or other absorbent material.	Air dry. Use fans.

Salvage At A Glance Part III: Object Collections

Conserve O Gram Number 21/6

Inorganic Materials

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Metal

	Treat unstable (corroded) metals within 48 hours. Treat stable metal after less stable materials.	Use gloves when handling. If the surfaces are stable, blot with lint-free towels.	Wrap with absorbent materials. Pack copper alloys in individual containers with silica gel.	Air dry. Use fans.
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Salvage At A Glance Part III: Object Collections

Conserve O Gram Number 21/6

Inorganic Materials

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
Stone				
	Treat after less stable materials.	If object has smooth surface, blot. If surface is rough or has an applied finish, do not blot.	Wrap with absorbent materials.	Air dry. Use fans.

Salvage At A Glance Part III: Object Collections

Conserve O Gram Number 21/6



Inorganic Materials

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Glass

	Treat after less stable materials.	Pat dry, do not rub.	Wrap with absorbent materials.	Air dry. Use fans.
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Salvage At A Glance Part III: Object Collections

Conserve O Gram Number 21/6



2.Natural History Collections





Natural History Collections

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Biological Specimens

Animal Skins and Taxidermy Mounts	Treat within 24 hours to prevent mold growth.	Avoid direct handling. Many stuffed mounts may contain arsenic or other pesticides.	Separate items with freezer or wax paper. Isolate from other objects in boxes with plastic sheeting.	Air dry slowly.
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Salvage At A Glance Part IV: Natural History Collections Conserve O Gram Number 21/7



Natural History Collections

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Biological Specimens

Herbarium Specimens	Treat within 24 hours to prevent mold growth.	Avoid direct handling.	Separate with plastic sheeting, freezer or wax paper.	Air dry with good ventilation. Consult a conservator.
Fluid Preserved Collections	Treat within 24 hours to prevent objects from drying or shriveling.	Avoid direct handling.	Place specimens and labels in sealed polyethylene boxes with a small amount of alcohol.	Rinse with distilled water or a preservative. Store in new jar with fresh liquid or preservative.
Pinned Insects	Treat within 24 hours to prevent mold growth.	Handle with care—wet specimens may be fragile.	Ensure pins are secured and specimen trays/boxes are supported.	Air dry with good ventilation.

Salvage At A Glance Part IV: Natural History Collections Conserve O Gram Number 21/7



Natural History Collections

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
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Geological Specimens

Geological Specimens	Treat within 48 hours.	Handle with care—wet specimens may be fragile.	Wrap with paper towels or other absorbent material.	Air dry slowly. Consult a conservator; some specimens should be dried quickly.
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Paleontological Specimens

Paleontological Specimens	Treat within 48 hours.	Handle with care—wet specimens may be fragile.	Wrap individually with absorbent material.	Air dry slowly. Use ties to hold fragile or repaired specimens while drying.
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Salvage At A Glance Part IV: Natural History Collections Conserve O Gram Number 21/7



3.Textiles



Textiles

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
Small Flat Textiles	Treat within 48 hours. Bleeding dyes should be treated immediately by a conservator.	Gently press water out with palm or blot with lint-free towels. Do not wring or twist.	Separate with freezer or wax paper and box in small groups.	Air dry. Freeze items that cannot be dried within 48 hours and consult a conservator.
Large Flat Textiles	Treat within 48 hours. Bleeding dyes should be treated immediately by a conservator.	Gently press water out with palm or blot with lint-free towels. Do not wring or twist.	Keep rolled on tubes if possible. Be careful of weakened tubes.	Air dry. Freeze items that cannot be dried within 48 hours and consult a conservator.
Embroidered or Multi-Layered Flat Textiles (Quilts)	Treat within 48 hours. Bleeding dyes should be treated immediately by a conservator.	Gently press water out with palm or blot with lint-free towels. Do not wring or twist.	Keep rolled on tubes if possible. Be careful of weakened tubes.	Air dry. Freeze items that cannot be dried within 48 hours and consult a conservator.

Salvage At A Glance Part V: Textiles

Conserve O Gram Number 21/8



Textiles

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
Painted or Stenciled Fabrics	Treat within 48 hours.	Do not blot painted surfaces.	Separate with freezer or wax paper to prevent staining between items.	Air dry. Do Not Freeze.
Framed Needlework and Silk Pictures	Treat within 48 hours.	Blot gently. Remove from frame.	Interleave freezer paper and cardboard to provide support.	Air dry. Freeze items that cannot be dried within 48 hours and consult a conservator.
Beadwork	Treat within 48 hours.	Blot gently. Minimize movement. Provide support.	Separate with freezer or wax paper to prevent staining between items.	Air dry. Do Not Freeze.

Salvage At A Glance Part V: Textiles

Conserve O Gram Number 21/8



Textiles

<i>Material</i>	<i>Priority</i>	<i>Handling Precautions</i>	<i>Packing Method</i>	<i>Drying Method</i>
Fragile Garments (Silk Dresses)	Treat within 48 hours.	Avoid handling if possible. Be aware of metal closures etc. that can tear fabric.	Separate with freezer or wax paper to prevent staining between items.	Air dry. Freeze items that cannot be dried within 48 hours and consult a conservator.
Sturdy Garments (Wool Uniforms)	Treat within 48 hours.	Blot gently.	Separate with freezer or wax paper to prevent staining between items.	Air dry. Freeze items that cannot be dried within 48 hours and consult a conservator.

Salvage At A Glance Part V: Textiles

Conserve O Gram Number 21/8



BLOTTING



SUPPORT



AIR DRYING



HARPERS FERRY CENTER

WE SERVE THE PARKS



National Park Service



Not in handout

www.nps.gov/hfc/products/cons/wet-recovery.htm

