Preservation Management Guide for the Oregon Nikkei Endowment Museum Archives

DRAFT

OREGON NIKKEI ENDOWMENT

Table of Contents

Introduction

This guide is meant to be used as a reference tool by the staff, volunteers, or interns who are charged with the preservation management of the Oregon Nikkei Endowment's museum archives. The following information is categorized by material collection types – those being textural records, photographs and other visual records, sound recordings, magnetic media, optical disk media, and other archival holdings. For each of these categories, procedures for processing, handling and storage are outlined along with a list of useful preservation supplies that might be required for the housing and care of the materials in question. Depending on the materials and formats, there are procedures outlined for collections that might require reformatting. Finally, additional tips are provided for some of the materials that have unique preservation needs.

Section One: Textual Records

Textual records such as manuscripts or papers are defined as "a body of documents created or collected by an individual or family." Textual records can also include "the official documents of a government, public institution, business, or other corporate entity."[1] No matter which category textural records fall into, they most often include letters, diaries, journals, memos and other *unpublished* written materials.

Processing, Handing, and Storage Procedures:

- Keep your hands clean and wear cotton gloves, if possible (i.e., if doing so does not cause damage to the record).
- Gently remove any smudges or stains with an art gum eraser or loose surface dirt with a soft brush.
- Unfold and flatten papers – straightening creases and bent corners. For example, letters in envelopes should be removed, unfolded and flattened.[2]
- Remove paper clips, staples, pins, and rubber bands without causing damage to the item(s). Use archival quality paper file folder inserts and label as necessary if by removing these objects the original order risks being confused or lost.
- If placing into archival quality file folders, place no more than twenty items per file folder using the pre-folded lines on the folder as a guide.
- Label each file folder with the original file name or tab inscription along with the assigned box number, file number, collection name, and accession number.
- Place the files into an archival quality acid-free box.
- Label each box with the collection name, accession number, box number, and location code (if applicable).[3]

For bound manuscript items:

- Label with accession number and item number.

[1] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 72.
[2] The reason for this is that repeated folding and unfolding as the documents are handled over time will cause breaking or tearing along the fold lines.
[3] Coles, Laura, ed., 72, 75, 76.

- Slim items can be boxed along with other documents. Place spine down in archival quality file folders.
- If they do not fit into a box, store horizontally on a shelf with no more than three items stacked on top of each other.
- Use a separation sheet to identify archival material that has been removed from the larger body of records for storage reason.

Reformatting Textual Records – Paper Transfer:

When considering reformatting, one should note that photocopying is the least expensive method of reproduction acceptable for most archival paper or textual records. Information contained in deteriorating paper records can be preserved by using archival bond paper when photocopying. When housed within a collection, these copies should be clearly labeled on a file folder as an "archival copy." Creating an additional user copy is acceptable for most researchers' needs. Like the archival copies, these copies should be clearly labeled on a file folder as "user copy" when housed within a collection. By later utilizing user copies for reproduction requests, the Archives avoids subjecting records to repeated exposure to intense light from a photocopier and reduces unnecessary handling of an original record.[4]

Reformatting Textual Records – Digital Transfer:

The standard for digitally reformatting textual records is to scan at a minimum of 600dpi and to transfer to an archival-grade Preservation CD-R.

Useful Supplies:

Bond Paper (Archival, Permalife): Letter (8 1/2 x 11"); Legal (8 1/2x14")

Storage Carton (Archival, Buffered): Letter (10 x 12 1/4 x 6 1/2"); Legal (10 x 15 1/4 x 6 1/2")

Tab File Folders (Archival, Buffered): Letter (9 5/8 x 11 3/4"); Legal (9 5/8 x 14 3/4")

File Folder Inserts (Archival, Buffered, Permalife Bond): Letter (9 1/8 x 11 3/4"); Legal (9 1/8 x 14 3/4")

[4] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 31, 32.

Interleaving Tissue (Acid-Free, Buffered, .001 Thick): (8 x 10”), (8 1/2 x 11”), (10 x 15”)[5]

[5] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

Section Two: Photographs and Other Visual Records

Photographs and other visual records include glass plate negatives, glass lantern slides, glass-encased 35mm slides, photographic prints, cellulose acetate and polyester slides, negatives and transparencies, photograph albums, motion picture film, microfilm and microfiche.

Glass Plate Negatives, Glass Lantern Slides and Glass-Encased 35mm Slides

Processing, Handing, and Storage Procedures:

- Wear clean, lint-free cotton gloves.
- Hold by the edges when handling.
- Store glass plate negatives and glass lantern slides in four flap enclosures or negative sleeves and in size-appropriate boxes.
- Store glass-encased 35mm slides in a slide box or archival quality slide sleeve.
- Store glass plate negatives and glass lantern slides upright on edge whenever possible.
- Label enclosures, sleeves and boxes.

Additional Tips:

Glass plate negatives range between the mid 1850s to the early 1920s, glass lantern slides range from the mid 1850s through to the mid 1950s, and glass-encased 35mm slides began to be commercially available in the 1950s.

They are extremely fragile and require extra care when handling. When boxed, the box must clearly be labeled "glass – fragile – heavy."[6]

Broken glass plate negatives and glass lantern slides should be stored horizontally and stabilized with shims (cut from mat board) in a custom made sink mat.[7] The shims can be attached to the mat using double-sided 3M 451 adhesive tape.

Useful Supplies:

Glass Lantern Slide Box (Archival, Unbuffered, PAT Passed[8]): (4 1/2 x 4 1/2 x 10 1/2")

[6] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 59.
[7] Ibid, 65.

Glass Lantern Slide Four-Flap Enclosures (Archival, Unbuffered, PAT Passed): (3 1/16 x 4 1/16 x 1/8")

Glass Plate Negative Box (Archival, Unbuffered, PAT Passed): (4 x 5 x 10"), (5 x 7 x 10"), (8 x 10 x 10")

Glass Plate Negative Four-Flap Enclosures (Archival, Unbuffered, PAT Passed): (4 1/16 x 5 1/16"), (5 1/16 x 7 1/16"), (8 1/16 x 10 1/16")

Mat Board (Archival, Buffered, 100% Cotton Rag, PAT Passed): (11 x 14")[9]

Photographic Prints

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number and item number. When labeling, avoid applying numbers to the print itself but rather label the protective (buffered) envelope instead. If the print must have a number applied then use a 2B or 3B soft pencil.[10]
- Never touch the face of a photograph or the emulsion side of a negative, but rather hold them by the edges or their underside.
- Each photographic image should be stored individually in an acid-free or buffered paper envelope – unless it is a cyanotype or albumen where unbuffered paper envelopes are required instead – or an archival-safe cellulose triacetate, polyester, polyethylene or polypropylene sleeve. If handled often, the latter is more preferable than the former.
- If stored in a paper enclosure, be sure to write the accession and item numbers and type of image on the outside of the sleeve.
- Photographic prints are usually stored together (boxed or in binders) and kept in accession number order.[11]

[8] Meaning it passed the Photographic Activity Test (PAT).
[9] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[10] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 66.
[11] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 81, 82.

- Label each box with the collection name, accession number, box number, and location code (if applicable).

Additional Tips:

Rolled prints such as panoramas should be stored flat. If that is not possible without a conservator, store rolled prints in rolled storage boxes available through archival supply vendors such as Gaylord Brothers.

If prints must be stored in the same envelope then be sure never to store "image side to image side," but rather store where "the image side of one print is housed adjacent to the back of the next print."[12] However, if there is a glued of caption, tape or some other form of adhesive on the back of a print, sometimes storing prints face to face is better so as to prevent contaminating the surface of a photo.

If dealing with a collection of textural documents that has photographic prints interspersed, be sure to give each photograph an item number after assigning an accession number to a collection. Photographs can then be stored wherever appropriate to their physical and media needs – with the accession or, if a large number of items, in a separate location.

If several duplicate copies of an original image are received in a collection, choose the clearest copy and mark it with the accession number, the item number and "original." Other original copies should be marked with the same accession number, item number and an identifier such as "copy 1" or "copy 2."[13] It should be noted here that duplicate copies refer to those copies of the same image *printed by the photographer.* Copies made later by the copying of an original image – meaning those copies *not* printed by the photographer – should be avoided, if possible, for an archival collection.

Reformatting Photographic Prints:

If archival copy prints and negatives are made, ask for archival quality fiber paper rather than resin coated stock. Standardized negative sizes (2 1/4 x 2 1/4") and print sizes (4 x 5" or 8 x 10") are recommended if copy prints or negatives are made. Prepare a contract or written

[12] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 66.
[13] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 78.

agreement prohibiting the processor providing the archival copying service from keeping copies of the photographs without permission.

- Identify archival copies of prints and negatives by inserting the same accession and item number and labeling as "archival copy print" or "archival copy negative."
- If possible, for security in case of disasters, store copy prints and copy negatives separately from originals.
- Update the location list, finding aid or collections management system (PastPerfect) catalog record to indicate that archival and/or reference prints or negatives exist.
- For reference or security purposes, scans of prints can also be made. If using an original print, make only one scan from that original print to prevent unnecessary exposure to light.[14]

Reformatting Photographic Prints – Digital Transfer:

The standard for reformatting photographic prints and negatives is to scan at a minimum of 600dpi and to transfer to an archival-grade Preservation CD-R.

Useful Supplies:

Drop-Front Box (Archival, Buffered, PAT Passed): (8 1/2 x 10 1/2 x 3"), (9 1/2 x 12 1/2 x 3"), (11 1/2 x 15 x 3"), (11 1/2 x 17 1/2 x 3 1/2"), (12 1/2 x 16 1/2 x 3"), (14 1/2 x 18 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 3"), (20 1/2 x 24 1/2 x 1 1/2"), (20 1/2 x 24 1/2 x 3"), (24 1/2 x 31 1/2 x 2 1/2")

File Folder, Oversize (Archival, Buffered, PAT Passed): (11 x 17", 16 x 20", 13 x 18", 18 x 24", 20 x 24", 20 x 30", 24 x 36")

Photo Pocket Album Pages (Polypropylene, Archival): (8 1/2 x 11" pages for print sizes 3 1/2 x 5", 4 x 5", 4 x 6", 5 x 7", 8 x 10", and 8 ½ x 11")

Print Envelopes (Buffered,[15] PAT Passed): (4 3/8 x 5 3/8"), (4 7/8 x 5 3/8), (4 3/8 x 6 3/8"), (5 ½ x 7 3/8"), 8 1/2 x 10 1/2"), (11 1/2 x 14 1/2")

[14] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 84.

Interleaving Paper (Archival, Buffered, PAT Passed, 5-pt.): (8 x 10”), 16 x 20”, 32 x 40”)

Roll Storage Box (Archival, Buffered, PAT Passed): (4 x 31 x 4"), (4 x 37 x 4"), (4 x 49 x 4"), (4 x 49 x 4"), (5 x 37 x 5"), (5 x 49 x 5"), (6 x 31 x 6"), (6 x 37 x 6"), (5 7/8 x 48 1/8 x 5 7/8")[16]

Photographic Slides, Negatives, and Transparencies

This includes 35mm slides and other sized negative transparencies.

Processing, Handing, and Storage Procedures:

- Wear clean, lint-free cotton gloves.
- Hold by the edges when handling.
- Place slides into slide boxes or sleeves.
- Place negatives and transparencies into their own individual paper enclosures with the emulsion side away from the adhesive seam.
- Store in an archival box.

Additional Tips:

Black and white and color photographic slides, negatives and transparencies come on either a cellulose nitrate,[17] cellulose acetate or a polyester base film.[18] Cellulose acetate base film was introduced in the 1920s and used commercially until the mid 1950s. Known as “safety film,” it is easily identified by that label along with “edge printing, notch codes, date and context.” For transparencies, one must consider that vinegar syndrome could be an issue. Polyester base film was introduced in the mid 1950s. Polyester is more stable than cellulose acetate and has a much longer life expectancy.[19]

Reformatting Slides, Negatives and Transparencies – Physical Transfer:

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[15] If photographic prints are part of a larger mixed collection then unbuffered envelopes are better to use.
[16] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[17] Cellulose nitrate materials should not be collected by the Archives due to their chemical instability. Cellulose nitrate film is highly flammable. Please refer to appendix for a detailed discussion on the deterioration, risks, and identification of nitrate-based film.
[18] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 62.
[19] Ibid, 60,61.

If photographic print copies of original slides, negatives, or transparencies are made, ask for archival quality fiber paper rather than resin coated stock. Standardized print sizes (4 x 5" or 8 x 10") are recommended for photographic print copies. Prepare a contract or written agreement prohibiting the processor providing the archival service from keeping copies of the photographic images without permission.[20] Be sure to clearly label these prints as copies.

Reformatting Transparencies – Digital Transfer:

The standard for reformatting slides, negatives and transparencies is to scan at a minimum of 600dpi and to transfer to an archival-grade Preservation CD-R.

Useful Supplies:

Slide Tray (Archival, Unbuffered, PAT Passed): (2 1/4 x 11 1/4 x 2 3/8")

Slide Tray Dividers (Archival, Unbuffered, PAT Passed): (2 1/4 x 11 1/4 x 2 3/8")

Slide Tray Outer Box (Archival, Unbuffered, PAT Passed): (11 1/2 x 15 x 3")

Negative Envelopes (Unbuffered, PAT Passed): (4 3/8 x 5 3/8"), (4 7/8 x 5 3/8), (4 3/8 x 6 3/8"), (5 1/2 x 7 3/8"), 8 1/2 x 10 1/2"), (11 ½ x 14 1/2")[21]

Photograph Albums

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number and item number.
- Interleave photos with buffered paper (unless cyanotypes and albumens).[22]
- Scan photographs if faded or deteriorating from acidification.
- Place the albums into an archival quality acid-free box.
- Label each box with the collection name, accession number, box number, and location code (if applicable).

[20] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 84.
[21] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[22] Be careful here as cyanotypes and albumen should never come in contact with buffered paper. Use unbuffered paper.

Additional Tips:

Disassemble albums if deteriorating, damaged, or acidic.

- If disassembled, photo document in its original order.
- Label each album page with a number in the bottom right corner.
- Store in archival quality file folders; place no more than ten items per file folder using the pre-folded lines on the folder as a guide.
- Label each file folder with the box number, file number, collection name, and accession number.
- Place the files into an archival quality acid-free box.
- Label each box with the collection name, accession number, box number, and location code (if applicable).[23]

Reformatting Photograph Albums:

The standard for reformatting photograph albums is to scan each image at a minimum of 600dpi and to transfer to an archival-grade Preservation CD-R.

Useful Supplies:

Drop-Front Box (Archival, Buffered, PAT Passed): (8 1/2 x 10 1/2 x 3"), (9 1/2 x 12 1/2 x 3"), (11 1/2 x 15 x 3"), (11 1/2 x 17 1/2 x 3 1/2"), (12 1/2 x 16 1/2 x 3"), (14 1/2 x 18 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 3"), (20 1/2 x 24 1/2 x 1 1/2"), (20 1/2 x 24 1/2 x 3"), (24 1/2 x 31 1/2 x 2 1/2")

File Folder, Oversize (Archival, Buffered, PAT Passed): (11 x 17”, 16 x 20”, 13 x 18”, 18 x 24”, 20 x 24”, 20 x 30”, 24 x 36”)

Storage Carton (Archival, Buffered): Letter (10 x 12 1/4 x 6 1/2"); Legal (10 x 15 1/4 x 6 1/2")

Tab File Folders (Archival, Buffered): Letter (9 5/8 x 11 3/4"); Legal (9 5/8 x 14 3/4")

Interleaving Tissue (Acid-Free, Buffered, .001 Thick): (8 x 10”), (8 1/2 x 11”), (10 x 15”), (11 x 14”), (14 x 18”), (15 x 20”), (16 x 20”), (20 x 24”), (20 x 30”), (24 x 36”), (30 x 40”)[24]

[23] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 85.

Motion Picture Film

This includes Super8, 8mm, 16mm, and 35mm film gauges.

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number and item number.
- Store Super8, 8mm, and 16mm on reels in polypropylene canisters flat on shelves – stacked no more than three deep. If still on reels, store vertically on shelves.
- Store heavier 35mm on reels in metal or polypropylene canisters horizontally on shelves stacked no more than three deep. Be sure to remove from metal reels and store on archival cores.[25]
- Avoid projecting the original or master copy whenever possible.
- Motion picture film requires cold, dark storage.[26]

Additional Tips:

For motion picture film stock, one must consider that cellulose nitrate-based film was manufactured between the 1890s and the 1950s. Due to its extreme chemical instability,[27] cellulose nitrate-based film should not be collected for the Archives. This film is usually labeled "nitrate."[28]

Otherwise, cellulose acetate film base was used between the early 1930s to the 1960s before being replaced with polyester. Vinegar syndrome could be an issue. A way to identify a motion picture film base is by holding it up to a light source. If light pipes through then it's a polyester-based film rather than cellulose acetate-based.[29]

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[24] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[25] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 66.
[26] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 86, 87.
[27] Cellulose nitrate film is highly flammable. Please refer to appendix for a detailed discussion on the deterioration, risks, and identification of nitrate-based film.
[28] Balboa Art Conservation Center, Focus on Collections Care workshop, February 2, 2011.
[29] Ibid.

Test cellulose acetate-based motion picture film for vinegar syndrome by using an A-D Strip. If it tests positive then add a Kodak molecular sieve packet (essentially, a desiccant) to a well-sealed container[30] – in a plastic or metal canister using moisture proof tape – to retard further deterioration.[31]

Be sure to identify and secure motion picture film stock loose on a core or reel by wrapping it with an identification tag that has a pH neutral self-adhesive strip.[32]

Reformatting Motion Picture Film:

The best but most expensive way to conserve motion picture film is to make an archival or master copy and a user or access copy. One acceptable standard for digitizing film and videotape is to transfer to a Digital Betacam (or Digi-Beta) video format for the archival copy and a Professional Archival DVD for the user copy.

Useful Supplies:

Film Cans (Archival, Vented, Polypropylene): 16mm x 1,200' (12 7/16 d x 1 1/4" h), 16mm x 2,000' (15 1/8 d x 1 1/4" h), 35mm x 1,000' (10 5/8 d x 1 13/16" h), 35mm x 2,000' (15 1/8 d x 1 13/16" h)[33]

Film Can Core (Archival, Polypropylene): 16mm (3" d), 35mm (3"d)

Film Reel ID Tags (Acid-Free, Buffered, PAT Passed): 16mm (40"), 35mm (40")[34]

Molecular sieves and A-D Strips can be purchased directly from the Image Permanence Institute.[35]

Microfilm and Microfiche

[30] University of Washington Libraries, "Washington State Film Preservation Manual: Low-cost & No-cost Suggestions to Care for Your Film," www.lib.washington.edu/specialcoll/film/preservationmanual.pdf (accessed May 28, 2011).
[31] Please refer to appendix for further conservation and preservation actions one could take for cellulose acetate-based film.
[32] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 87.
[33] Please note that Gaylord Brothers does not sell size-appropriate canisters for Super8 and 8mm films. Another archival supply vendor will need to be researched and sourced.
[34] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[35] Image Permanence Institute, "A-D Strips," www.imagepermanenceinstitute.org/imaging/ad-strips (accessed May 28, 2011).

Microfilm can be found in a 26 or 35mm format on cellulose acetate and polyester film bases. Microfilm is "used to record archival materials photographically."[36]

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Store in a cool room, on reels, and in acid-free boxes.
- Label box with accession number, item number, and description of contents.[37]

Additional Tips:

Master negatives should be stored on archival plastic reels in archival plastic or acid-free buffered boxes. Microfiche should be stored in acid-free buffered enclosures.[38] Masters should also be stored somewhere away from the user prints – preferably in a secure off-site storage facility.

"Microfilm and microfiche require specialized equipment for reading and printing." When appraising microfilm and microfiche for the Archives, Oregon Nikkei Endowment must consider if there is adequate equipment for playing or re-recording material.

Useful Supplies:

Microfilm Reel Box (Archival, Buffered, PAT Passed): (3 3/4 x 3 3/4 x 1 5/8), (3 3/4 x 3 3/4 x 1)

Microfiche Envelopes (Acid-Free, PAT Passed): 100mm x 150mm (4 x 6")

Microfiche Box (Archival, Unbuffered, PAT Passed): (4 1/2 x 6 1/4 x 2")[39]

[36] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 63.
[37] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 87, 88.
[38] *Basic Conservation of Archival Material,* 66.
[39] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

Section Three: Sound Recordings

Sound recordings include wax cylinders and disc sound recordings or records. When appraising sound recordings for the Archives, Oregon Nikkei Endowment must consider if there is adequate equipment for playing or re-recording material.

Remember to "handle and play originals as infrequently as possible. Do not let researchers handle the originals themselves; make copies for public use."[40]

Wax Cylinders

Wax cylinders recordings were first introduced in 1885 and are made from wax-coated cardboard and solid wax.

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number and item number.
- Store wax cylinder vertically on end in acid-free boxes with foam bottom cushion and foam core support post.
- The original wax cylinder box should be retained, labeled, and stored separately (due to its acidity).
- Insert your fingers in the open end of a cylinder when handling being careful to avoid touching the playing surface.[41]

Useful Supplies:

Wax Cylinder Box (Archival, Buffered): (4"), (6")[42]

Disc Sound Recordings or Records

Discs or records were first introduced in 1887 and have been made of materials "such as shellac, rubber, vinyl (polyvinyl chloride) and laminated discs." They can vary in dimension from 7" to

[40] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 97.
[41] Ibid, 98.
[42] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

12” to irregular sizes that could include 9”s. They also run at speeds ranging from 33 1/3 rpm (revolutions per minute) to 45 rpm to 78 rpm. 33 1/3 or long players were introduced commercially in the 1940s while 45s or singles were introduced commercially in the 1950.[43]

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number and item number.
- Store records vertically to prevent warping.
- Handle records by edges and label areas avoiding touching the playing surface.

Useful Supplies:

7” Record Envelope (Archival, Polyester): (7 3/4 x 7 3/4”)

7” Record Box (Archival, Buffered): (8 x 6 x 8”)

10” Record Storage Sleeve (Archival, Buffered): (10”)

12” Record Sleeves (Archival, Polyethylene, 2mil, Anti-Static): (12 3/16 x 12 3/6”)

12” Record Box (Archival, Buffered): (13 1/4 x 6 x 13 1/4”)[44]

Acetates

Instantaneous discs or records are known as acetates. Acetates were introduced in the 1930s and were in use through the 1940s. They are usually in the 78 rpm format. Their core is most often aluminum, but they can also be glass or cardboard covered with a coat of nitro-cellulose.

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number and item number.
- Glass acetates are extremely fragile and require their own storage box clearly labeled “glass – fragile.”

[43] Balboa Art Conservation Center, Focus on Collections Care workshop, February 2, 2011.
[44] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

- All acetates should be played for one-time reformatting purposes only.

Reformatting Sound Recordings:

Most LPs and 45s or singles are made of a polyvinyl chloride or polystyrene composite and should be considered the most stable medium in an archives.

However, due to the instability of nitro-cellulose it is important to identify the acetate records in an archives. Due to their inherent vice, the composites that make up acetates are instable and should be a priority for reformatting.[45]

The best but most expensive way to sound recordings is to make an archival or master copy and a user or access copy. Transfer to an archival-grade Preservation CD-R for both the archival copy and the user copy.

Useful Supplies:

Acetate Envelopes (Acid-Free): 10" record (10 1/8 x 10 1/8"), 13" record (13 1/4 x 13 1/16 x 12")

13" Record Box (Archival, Buffered): (13 1/4 x 6 x 13 1/4")[46]

[45] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 66, 67.
[46] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

Section Four: Magnetic Media

Magnetic media includes reel-to-reel, video cassettes, audio cassettes, computer diskettes and 4mm DAT (Digital Audio Tape) tapes. When appraising magnetic media for the Archives, Oregon Nikkei Endowment must consider if there is adequate equipment for playing or re-recording material.

Processing, Handing, and Storage Procedures:

- Wear lint-free gloves at all times.
- Label with accession number and item number.
- Store records and tapes (cassettes, reel-to-reels) vertically to prevent warping.
- House in archival quality plastic or acid-free containers.
- Tapes should be rewound before playing.
- When winding reel-to-reel or cassette tapes use the slow playback speed rather than the fast forward or reverse speed.

Additional Tips:

Store reel-to-reel and cassette tapes one to two feet from machinery or equipment such as computers or telephones to prevent the buildup of a magnetic field that could cause the tape to erase. [47]

For reel-to-reels, one must consider that cellulose acetate tape base was used between the early 1930s to the 1960s before being replaced with polyester. Vinegar syndrome could be an issue.[48] A way to identify a reel-to-reel's film base is by holding it up to a light source. If light pipes through then it's a polyester-based film rather than cellulose acetate-based.[49]

Reformatting Magnetic Media:

Reel-to-reel is "stronger and more permanent" compared to audio and video cassette tapes which are susceptible to breaking and "'print through' (where the magnetic layer leaks through one

[47] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 97.
[48] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 68.
[49] Balboa Art Conservation Center, Focus on Collections Care workshop, February 2, 2011.

layer of tape to the next)."[50] Audio and video cassette tapes have a 2 to 30-year life expectancy, 4mm DAT tap has a 10-year life expectancy, and diskettes already face being obsolete.[51] Migrating magnetic media on a regular basis as part of a reformatting program is especially crucial when considering that playback equipment quickly becomes obsolete.

Useful Supplies:

Audio Tape Containers (Archival, Polypropylene): 5" reel-to-reel (5 ½ x 1/4"), 7" reel-to-reel (7 1/2" x 1/4")

Audiocassette Case (Polypropylene): (4 1/8 x 2 5/8 x 1/2")

Audiocassette Case Box (Archival, Buffered, PAT Passed): (9 x 12 x 3")

Videocassette Case (Polypropylene): (8 x 4 3/4 x 1 1/8")

Videocassette Case Box (Archival, Buffered, PAT Passed): (5 1/2 x 14 1/2 x 16 7/8")[52]

[50] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 97.
[51] Balboa Art Conservation Center, February 2, 2011.
[52] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

Section Five: Optical Disc Media

Optical disc media includes CD-Rom, DVD, CD-RW (Compact Disk Rewritable), CD-R (Compact Disc-Recordable), WORM (Write-Once-Read-Many), and CD-DA (Compact Disc Digital Audio). Optical disc media is information "encoded in digital form." Optical discs, or compact discs, are "laminate structures with a core, reflective layer and a lacquer layer." When appraising optical disk media for the Archives, Oregon Nikkei Endowment must consider if there is adequate equipment for playing or re-recording material.

Processing, Handing, and Storage Procedures:

- Avoid storing CDs in a paper enclosure. Rather, store CDs in a jewel case, polypropylene or polycarbonate case, or some other archival plastic case.
- Store CDs vertically.
- Wear lint-free gloves when handling.
- Hold by their edges.
- Store CDs in the dark by keeping them boxed.
- Avoid labeling the CDs by applying self-adhesive labels onto their surface.

Reformatting Optical Disc Media:

CDs have a 20 to 200-year life expectancy.[53] However, due to the likelihood of their becoming quickly outmoded as "born digital" media it is strongly recommended to put CDs on a reformatting program. More research will be required as new technology emerges and reformatting options present themselves in the years to come.

Useful Supplies:

CD Case (Polypropylene): (4 3/4 x 5 x 1/4")

CD Box (Archival, Buffered): (5 7/8 x 5 1/2 x 12")[54]

[53] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 70.
[54] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

Section Six: Other Archival Holdings

Other archival holdings include postcards, art work (such as prints, paintings and drawings), maps, plans and architectural drawings, books, ephemera, newspapers, newspaper and magazine clippings, scrapbooks, and artifacts.

Postcards

Do note that the following applies to non-photographic postcards. Photo postcards should always be considered as photographs rather than postcards.

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number.
- Note any personal messages written on the back of postcards in the location list and/or ARGUS catalog record.
- Store in acid-free envelopes or archival-safe cellulose triacetate, polyester, polyethylene or polypropylene sleeves.
- Postcards that are hand-tinted or colored should be wrapped in acid-free tissue and store carefully.
- File postcards in accession number order.[55]

Reformatting Postcard Collections:

The standard for reformatting postcard collections is to scan at a minimum of 600dpi and to transfer to an archival-grade Preservation CD-R.

Useful Supplies:

Postcard Envelopes (Polyethylene, 2mil): Fits 3 1/2 x 5 1/2" (3 5/8 x 5 5/8”), Fits 4 x 6” (4 1/2 x 6 1/4”)

[55] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 85.

Postcard Boxes (Archival, Unbuffered): Fits 3 x 5" and 4 x 6" in envelops (4 1/2 x 6 x 10 7/8"), Fits 4 x 6 in envelope and 5 x 7" without an envelope (5 1/2 x 7 7/8 x 10 7/8")[56]

Prints, Paintings and Drawings

According to Laura Coles' *A Manual for Small Archives*, "The chief reason for collecting art in archives is for its historical and documentary value, not its artistic worth or aesthetic value."

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number and item number.
- Remove from weak frames or acidic containers, re-mat on acid-free paper, and store in size appropriate acid-free boxes.
- If in stable frame, store hanging in a cool room with little light.[57]
- If large and unframed, store flat in a map case.

Useful Supplies:

Drop-Front Box (Archival, Buffered, PAT Passed): (8 1/2 x 10 1/2 x 3"), (9 1/2 x 12 1/2 x 3"), (11 1/2 x 15 x 3"), (11 1/2 x 17 1/2 x 3 1/2"), (12 1/2 x 16 1/2 x 3"), (14 1/2 x 18 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 3"), (20 1/2 x 24 1/2 x 1 1/2"), (20 1/2 x 24 1/2 x 3"), (24 1/2 x 31 1/2 x 2 1/2")

File Folder, Oversize (Archival, Buffered, PAT Passed): (11 x 17", 16 x 20", 13 x 18", 18 x 24", 20 x 24", 20 x 30", 24 x 36")

Interleaving Tissue (Acid-Free, Buffered, .001 Thick): (8 x 10"), (8 1/2 x 11"), (10 x 15"), (11 x 14"), (14 x 18"), (15 x 20"), (16 x 20"), (20 x 24"), (20 x 30"), (24 x 36"), (30 x 40")

Interleaving Paper (Archival, Buffered, PAT Passed, 5-pt.): (8 x 10"), 16 x 20", 32 x 40")[58]

Maps, Plans, and Architectural Drawings

[56] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[57] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 88, 89.
[58] Gaylord Brothers, (accessed April 30, 2011).

Processing, Handing, and Storage Procedures:

- If possible (without damaging the paper), wear cotton gloves at all times.
- Label with accession number and item number.
- Store flat in acid-free buffered folders with no more than ten or twelve maps per folder.
- Interleave each item with acid-free paper or tissue.
- If possible, store them in archival map cabinets.
- To save space, store according to size.[59] All folders in a box or flat storage shelf or drawer should be "the same size regardless of the size range of the enclosed records."[60]
- If left rolled, roll each around an acid-free tube, covered in acid-free buffered paper, and tied with twill tape. Store horizontally.[61] Or store in an archival quality rolled storage box.

Additional Tips:

It should be noted that "blueprints are prepared by a photochemical process"[62] and should be stored in unbuffered enclosures due to their alkaline sensitivity.[63]

Useful Supplies:

Drop-Front Box (Archival, Buffered, PAT Passed): (8 1/2 x 10 1/2 x 3"), (9 1/2 x 12 1/2 x 3"), (11 1/2 x 15 x 3"), (11 1/2 x 17 1/2 x 3 1/2"), (12 1/2 x 16 1/2 x 3"), (14 1/2 x 18 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 3"), (20 1/2 x 24 1/2 x 1 1/2"), (20 1/2 x 24 1/2 x 3"), (24 1/2 x 31 1/2 x 2 1/2")

File Folder, Oversize (Archival, Buffered, PAT Passed): (11 x 17", 16 x 20", 13 x 18", 18 x 24", 20 x 24", 20 x 30", 24 x 36")

Roll Storage Box (Archival, Buffered, PAT Passed): (4 x 31 x 4"), (4 x 37 x 4"), (4 x 49 x 4"), (4 x 49 x 4"), (5 x 37 x 5"), (5 x 49 x 5"), (6 x 31 x 6"), (6 x 37 x 6"), (5 7/8 x 48 1/8 x 5 7/8")

[59] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 94.
[60] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 56.
[61] Coles, Laura, ed., 94.
[62] Coles, Laura, ed., 90.
[63] *Basic Conservation of Archival Material,* 56.

Interleaving Paper (Archival, Buffered, PAT Passed, 5-pt.): (8 x 10”), 16 x 20”, 32 x 40”)

Blueprint Storage Tube (Acid-Free, Unbuffered): (3”d with varying lengths), (6”d with varying lengths), (8”d with varying lengths)[64]

Ephemera

“Ephemera are those every day, impermanent items produced irregularly and designed to be used and then throw away. Pamphlets, brochures, tickets, programs, published reports, handbills, menus, advertisements, posters, and other miscellaneous printed or published items are all considered ephemera.”

Processing, Handing, and Storage Procedures:

- If possible (without damaging the paper), wear cotton gloves at all times.
- Label with accession number and item number.
- Store in archival file folders and manuscript boxes.

Additional Tips

If not part of a larger collection, “small accessions of pamphlets and other ephemera may be stored together.”[65]

Useful Supplies:

Storage Carton (Archival, Buffered): Letter (10 x 12 1/4 x 6 1/2"); Legal (10 x 15 1/4 x 6 1/2")

Tab File Folders (Archival, Buffered): Letter (9 5/8 x 11 3/4"); Legal (9 5/8 x 14 3/4")

Drop-Front Box (Archival, Buffered, PAT Passed): (8 1/2 x 10 1/2 x 3"), (9 1/2 x 12 1/2 x 3"), (11 1/2 x 15 x 3"), (11 1/2 x 17 1/2 x 3 1/2"), (12 1/2 x 16 1/2 x 3"), (14 1/2 x 18 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 3"), (20 1/2 x 24 1/2 x 1 1/2"), (20 1/2 x 24 1/2 x 3"), (24 1/2 x 31 1/2 x 2 1/2")

[64] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[65] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 107.

File Folder, Oversize (Archival, Buffered, PAT Passed): (11 x 17”, 16 x 20”, 13 x 18”, 18 x 24”, 20 x 24”, 20 x 30”, 24 x 36”)

Interleaving Tissue (Acid-Free, Buffered, .001 Thick): (8 x 10”), (8 1/2 x 11”), (10 x 15”), (11 x 14”), (14 x 18”), (15 x 20”), (16 x 20”), (20 x 24”), (20 x 30”), (24 x 36”), (30 x 40”)[66]

Newspapers

Archives should avoid collection newspapers as they often already exist on microfilm or microfiche at local libraries.

Processing, Handing, and Storage Procedures:

- If possible (without damaging the paper), wear cotton gloves at all times.
- Label with accession number and item number.
- Store flat in acid free boxes stacked no more than three inches high.[67]

Additional Tips

“Newspapers are made of poor quality inks and paper and will eventually deteriorate.” Do not mix other archival materials and newspapers due to the fact that acid in newsprint migrates easily.

Useful Supplies:

Newspaper Boxes (Archival, Buffered, PAT Passed): (13 x 18 x 3”), (19 X 25 X 2 1/2”), (22 3/4 x 30 7/8 x 3”), (22 3/4 x 30 7/8 x 3”)

Interleaving Tissue (Acid-Free, Buffered, .001 Thick): (14 x 18”), (15 x 20”), (20 x 24”), (20 x 30”)[68]

Newspaper and Magazine Clippings

Processing, Handing, and Storage Procedures:

[66] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).
[67] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 108.
[68] Gaylord Brothers, (accessed April 30, 2011).

- If possible (without damaging the paper), wear cotton gloves at all times.
- Label with accession number of the entire acquisition.
- File the clippings in acid free folders.[69]

Additional Tips:

Newspaper clippings stored with textual documents should be removed and photocopied on archival bond paper. The photocopy of the newspaper clipping "should replace the original in the file."[70]

Do not mix other archival materials and newspapers due to the fact that acid in newsprint migrates easily.

Useful Supplies:

Envelopes (Archival, Acid-Free, PAT Passed): (6 x 9"), (6 1/2 x 9 1/2"), (7 x 10"), 7 1/2 x 10 1/2"), 8 1/2 x 10 1/2"), (9 x 12"), (10 x 13"), (11 x 14"), 11 1/2 x 15 1/2")

Interleaving Tissue (Acid-Free, Buffered, .001 Thick): (8 x 10"), (8 1/2 x 11"), (10 x 15"), (11 x 14")[71]

Scrapbooks

Processing, Handing, and Storage Procedures:

- Wear cotton gloves at all times.
- Label with accession number of the entire acquisition.
- Interleave photos or original documents with buffered paper.
- Scan photographs or original documents if faded or deteriorating from acidification.
- Place the scrapbooks into an archival quality acid-free box or construct custom-sized phase boxes out of acid-free sheets.
- Label each box with the collection name, accession number, box number, and location code (if applicable).

[69] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 109.
[70] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 56.
[71] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

Additional Tips:

Interleaving can cause the scrapbook to swell and otherwise strain the spine and binding. For preservation reasons, the scrapbook might necessitate disassembly. Disassemble scrapbooks if deteriorating, damaged, or acidic.

- If disassembled, label each scrapbook page with a number to document and maintain original order.[72]
- Store in archival quality file folders; place no more than twenty items per file folder using the pre-folded lines on the folder as a guide.
- Label each file folder with the box number, file number, collection name, and accession number.
- Place the files into an archival quality acid-free box.
- Label each box with the collection name, accession number, box number, and location code (if applicable).[73]

Remember, "The acid in the paper and glue will deteriorate the scrapbook over time."

Useful Supplies:

Drop-Front Box (Archival, Buffered, PAT Passed): (8 1/2 x 10 1/2 x 3"), (9 1/2 x 12 1/2 x 3"), (11 1/2 x 15 x 3"), (11 1/2 x 17 1/2 x 3 1/2"), (12 1/2 x 16 1/2 x 3"), (14 1/2 x 18 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 1 1/2"), (16 1/2 x 20 1/2 x 3")

Interleaving Tissue (Acid-Free, Buffered, .001 Thick): (8 x 10"), (8 1/2 x 11"), (10 x 15"), (11 x 14"), (14 x 18"), (15 x 20"), (16 x 20"), (20 x 24"), (20 x 30"), (24 x 36"), (30 x 40")[74]

Books

Books are considered to be of archival value if they are an integral part of a collection. This would include "books written by the creator of the collection" or books autographed, annotated, or marked on – such as notes in the marginalia in the book itself – by the creator. Otherwise,

[72] Prior to disassembling, consider further documenting the original order by documenting through photocopying, photography or microfilming.
[73] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 109.
[74] Gaylord Brothers, www.Gaylord.com/lobby_Gaylordmart.asp? (accessed April 30, 2011).

especially rare or fragile books can be stored in the Archives for security, handling and access reasons. These books should be considered part of the reference library's reserve collection.[75]

Processing, Handing, and Storage Procedures:

- If possible (without damaging the paper), wear cotton gloves at all times.
- Label with accession number and item number.

Artifacts

Avoid collecting artifacts in the Archives.[76]

[75] Coles, Laura, ed., *A Manual for Small Archives,* (Vancouver: Archives Association of British Columbia, 1999), 106.
[76] Coles, Laura, ed., 110.

Appendix

Cellulose Nitrate-Based Materials

Cellulose nitrate-based materials are chemically unstable. Due to their inherent vice they are highly flammable and pose a great risk to any archives. Therefore, it is strongly recommended that cellulose nitrate-based materials are not collected or retained by the Archives.

The types of film manufactured with a cellulose nitrate-base can include x-ray films, 35mm film rolls, portrait and commercial sheet films, aerial films, film packs, roll films in sizes 616, 620, etc., and professional 35mm motion picture films. Identification of nitrate-base film can be as simple as determining if it‘s stamped with a ―nitrate identifier on the edge printing or as complex as matching ―V notch codes with manufacturers. No matter what, when acquiring new materials, staff should be sure to flag and assess any of the previous listed film types that 45 might date between the 1890s and the 1950s when cellulose nitrate-based film was regularly manufactured.[77]

For future reference, according to Amigos Library Services cellulose nitrate-based film deterioration is characterized by the following five stages:

1. Discoloration or fading of image;

2. Film-base is brittle and emulsion becomes soft;

3. Blistering and pungent smell is apparent;

4. Materials congeals into a solid mass;

5. Disintegration into a brown powder with a bitter odor.[78]

[77] Northeast Document Conservation Center, “Preservation Leaflets, Photographs 5.1, A Short Guide to Film Base Photographic Materials: Identification, Care, and Duplication,” www.nedcc.org/resources/leaflets/5Photographs/01ShortGuide.php (accessed May 28, 2011).
[78] Balboa Art Conservation Center, Focus on Collections Care workshop, February 2, 2011.

It is also strongly recommended that potential donors be alerted to the danger of cellulose nitrate-based materials if they wish to retain any items refused for the Archives. Washington State Law must be consulted for proper disposal.

Cellulose Acetate-Based Materials

Cellulose acetate-based materials are susceptible to vinegar syndrome, or the ―acetic acid smell produced by deteriorating cellulose acetate film base. The stages of vinegar syndrome gradate from shrinking, embrittlement, cockling, and eventual emulsion loss. According to *Basic Conservation of Archival Material,* the six stages of vinegar syndrome are characterized by the following:

1. No deterioration;

2. Item shows slight or moderate edge curl which is always symmetrical on the two or four sides affected.

3. Item smells distinctly of acetic or butyric acid (or somewhat similar to vinegar);

4. Warpage is visible in the negative;

5. Bubbles will be visible throughout the negative;

6. Separation of the emulsion, base and anti-curl layers.[79]

It is important to identify all cellulose acetate-based film – from photographic negatives to record acetates to reel-to-reels to film stock – in the Archives and assess their condition based on the above six stages. Those items that are demonstrating stages two through four should be tested with A-D Strips (or Acid-Detecting Strips) available from the Image Permanence Institute. If moderate vinegar syndrome is confirmed then immediate digitization should be a priority. Those items that are confirmed as in the advanced stage of vinegar syndrome, stages five and six,

[79] *Basic Conservation of Archival Material,* (Ottawa: Canadian Council of Archives, 2003), 60, 61.

will require evaluation by a conservator – deaccessioning and disposal is a strong recommendation.

It should be noted that conservation treatment can be an option for a moderately affected item. In this case, freezing to retard the advancement of further deterioration can be utilized until a conservator can stabilize the item in question for reformatting purposes. Freezing kits are available through archival supply vendors such as Gaylord Brothers for a moderate price.

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