Preservation Assessment Report:
Barbara Curtis Adachi Bunraku Collection

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INTRODUCTION

In 1991, the Barbara Curtis Adachi's Bunraku Collection was given to Columbia University's C.V. Starr East Asian Library.[1] The Bunraku is an extensive collection, containing ca. 3320 paper items, 13,571 slides, 7,571 photographic items including negatives, 71 audio, and video materials, and 89 realia objects[2], providing researchers with the foundation for studying the Japanese puppet theater in modern times.

More detailed information about the Collection is listed on its Online Finding Aid written by Maiko Ota Cagno under a grant from the National Endowment for the Humanities. Following is the link to the online Finding Aid:

Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003

This report applies knowledge about the preservation and historical manufacture of typical collection items to create a preservation assessment by using the information from the Finding Aid. The report includes three sections: the Condition Assumption section identifies the format of the objects and the type of damage or deterioration I would expect to find; the Remediation section addresses treatment and storage needs based on the type of vulnerability, damage, and deterioration I predicted; the Reformatting section provides recommended actions for reformatting and digitizing the materials in the collection.

[1] The Barbara Curtis Adachi Bunraku Collection, "About the Collection," accessed March 19, 2022, https://bunraku.library.columbia.edu/about-the-collection/.

[2] For the count of objects, see Appendix 1.1.

CONDITION ASSUMPTIONS

This section looks at the age and usage of objects in the Bunraku's collection series to detect their formats and the types of damage or deterioration I would expect to find.

Format Assumptions

- Series: Slides

  This series contains 13,571 slides dated around 1987. They were mostly photographed by Adachi Bunraku. Some of the slides were photographed by a photographer hired for Adachi's 1978 publication.[3] Based on the date and place of origin of the slides, they are very likely to be B&W film slides[4] and color film slides[5].

- Series: Photo Albums

  This series has 49 photo albums containing 205 contact sheets and 4,187 regular prints dating from 1972 to 1985[6]. The contact sheets possibly are silver gelatin DOP prints[7] and chromogenic color prints[8].

- Series: Photographic Prints

  This series contains 6,225 photographic prints that include 5,846 photographs that were originally compiled in Photo Albums, 67 prints photographed for Adachi's *The Voices and Hands of Bunraku* in 1977 and 1978, 83 prints photographed for Adachi's *Backstage at Bunraku* in 1984, 132 B&W 4 7/8" x 6 1/2" prints, and 45 photographs in formats

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[3] Maiko Ota Cagno, "Series: Slides," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.
[4] B&W film slide's support is plastic (nitrate, acetate, or polyester) film base. Its paint media is gelatin silver bromide. Its mount is made of plastic, metal, or cardboard.
[5] Color film slide's support is plastic film bases. Its paint media is three layers of gelatin that each containing a dye image. Its mount is made of plastic or cardboard.
[6] Maiko Ota Cagno, "Series: Photo Albums," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.
[7] Silver Gelatin DOP Print's support is paper with baryta or resin coating. Its paint media is light-sensitive gelatin silver bromide.
[8] Chromogenic color print's support is paper with gelatin binder. Its paint media is an image made up of yellow, magenta, and cyan dye layers.

different from those used by Adachi.[9] Based on the date and the purposes of usage, photocopies for publication and backstage photography likely are chromogenic color prints. B&W 4 7/8" x 6 1/2" prints could be silver gelatin DOP prints. Miscellaneous photographs are probably dye-transfer prints[10] or silver dye-bleach prints[11].

- Series: Negatives

  This series contains 1,087 negatives and color transparencies. The date of objects in this series is not indicated on the online resource. However, based on the statement on the Finding Aid, "mostly photographed by other photographers, including Fukuda Fumio, Harri Peccinotti and Joel Sackett, all of whom contributed to Adachi's publications,"[12] I assume they are dated around the 1980s. They possibly are silver gelatin negatives[13], chromogenic color negatives[14] and color film slides.

- Series: Audio and Video Materials

  This series' items are dated from 1978 to 1983[15], containing 60 audio cassettes recorded by Adachi (converted to CDs and reel-to-reel analog tapes), 1 video cassette, 7 commercially produced audiotapes, and 3 commercially produced vinyl records. According to the dates and purposes of usage, the reel-to-reel analog tapes are likely to

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[9] Maiko Ota Cagno, "Series: Photographic Prints," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.

[10] Dye-transfer print's support is paper with a baryta layer. Its paint media is an image made up of yellow, magenta, and cyan dyes held in a single gelatin layer.

[11] Silver dye-bleach print's support is polyester, pigmented acetate, or resin-coated paper. Its paint media is an image made up of three silver bromide emulsion gelatin layers, each containing an azo dye image: cyan, magenta, and yellow.

[12] Maiko Ota Cagno, "Series: Negatives," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.

[13] Silver gelatin negative's support is a plastic (cellulose nitrate, cellulose acetate, or polyester) film. Its paint media is gelatin and silver emulsion.

[14] Chromogenic color negative's support is a plastic (acetate or polyester) film. Its paint media is three superimposed gelatin image layers (yellow, magenta, cyan).

[15] Maiko Ota Cagno, "Series: Audio and Video Materials," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.

be open reel audiotapes[16]; the video cassette might be Betamax[17]; the commercially produced audiotapes possibly are compact cassettes[18].

- Series: Printed Materials and Realia

  This series contains 913 printed materials including program flyers and published materials dated from 1964 to 2003.[19] Their printing process might be offset lithography[20]. The Realia subseries contains 89 objects including calendars, postcards, ceramic plates, folding fans, Japanese skirts, wooden clogs, shop curtains, narrator's tables, puppets, puppet heads, and hand towels.[21] The calendars' printing process likely is letterpress halftone[22]. The postcards could be collotype[23]. The folding fans, wooden clogs, narrator's table, and puppet heads are wooden objects. The Japanese skirt, puppets' clothes, and shop curtains are textiles.

- Series: Personal Papers

  This series contains 292 folders of publications and publication notes dated from 1970 to 2004 (including journals, magazines, books, manuscripts, notes, printed matters, and correspondence), 48 folders of correspondence dated from 1973 to 2003 (including business cards, letters, envelopes, aerogram, and printed matters), 84 folders of typescripts and research notes dated from 1970 to 1990 (including typescripts, notes, photocopied book, and journal excerpts), and 92 folders of subject files dated from 1970 to 2002.[24] The book's binding types might be thermoset adhesive binding, double fan adhesive binding, or stab binding. The book pages might be wood pulp paper. The journals, magazines, printed matters, and business cards' printing process are possibly

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[16] Open reel audiotape's tape is composed of magnetic particles, binder, and a base of either acetate or polyester. Its tape is held by a hub or reel.

[17] Betamax's tape is composed of magnetic particles, binder, and a polyester base. Its tape is enclosed in a plastic cassette.

[18] Compact cassette's tape is composed of magnetic particles or pigment, binder, and a polyester base. The tape is enclosed in a plastic cassette.

[19] Maiko Ota Cagno, "Series: Printed Materials and Realia," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.

[20] Offset lithography's support is paper; paint media is ink (oil-based or synthetic).

[21] Maiko Ota Cagno, "Series: Printed Materials and Realia," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.

[22] Letterpress halftone's support is paper. Its paint media is oil-based or synthetic ink.

[23] Collotype's support is paper with optional baryta layer. Its paint media is oil-based ink.

[24] Maiko Ota Cagno, "Series: Personal Papers," *Guide to the Barbara Curtis Adachi Bunraku Collection, 1964-2003*, July 31, 2006, http://www.columbia.edu/cu/lweb/eresources/archives/eastasian/adachi/ldpd.6226404.001.f.html.

offset lithography or letterpress halftone; paper support is possibly coated paper, wood pulp paper, or newsprint; binding type likely is staple binding. The letters', aerograms', correspondences', envelopes', notes', manuscripts' paper support might be wood pulp paper; paint media might be carbon black ink or iron-gall ink.

Damage Assumptions

This section describes the types of damage that would be typical for the objects in the Bunraku Collection. Damage types were separated by the causing factors.

- High or low relative humidity/temperature

  A humid/dry/hot/cold environment could cause various types of deterioration of the items in the Bunraku Collection. Film slides, negatives, and paper materials are sensitive to the environmental change. Under a high RH environment, film slides and negatives may soften and become sticky. Under an extreme low RH environment, they may become brittle.[25] Paper materials with water-soluble inks could deteriorate in a wet environment. Coated papers are sensitive to water, they may block together due to humidity.[26] A hot environment might yellowing the wood pulp papers and newsprint. Fluctuating temperatures and relative humidity could cause book leaves to shrink or expand, placing stress on the binding and covers. Similarly, fluctuating temperatures and humidity also affects wooden objects, causing them to shrink or expend.[27] Furthermore, exposing them to a wet and hot environment can lead to fungi or insect infestations.

- Light exposure

  Color slides, prints, and dyed textile object are sensitive to light. They could experience light fading (result in color change), which particularly caused by ultraviolet light or

[25] Preservation Self-Assessment Program, “Slides & Transparencies,” accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/slide.
[26] Preservation Self-Assessment Program, “Paper,” accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/paper.
[27] Valentin, “How Temperature Affects Wood: Everything You Need to Know,” accessed May 8, 2022, https://craftknights.com/how-temperature-affects-wood-everything-you-need-to-know/.

enlarger light.[28] Light can also cause cumulative damage to wooden objects in the Collection, leading to discoloration of the surface.[29]

- Poor handling

  While some audiovisual items in the collection are not considered especially prone to chemical or age-related deterioration, poor handling can still cause damage to them, particularly during playback. On one hand, frequent playback or unmaintained playback equipment can shorten compact disc's and vinyl disc's life span. On the other hand, discs with scratches, gouges, or smudges may not play properly.[30] Compact cassette is more susceptible to damage from playback because they may jam in the playback machine. Since its tape is thinner than shorter-length tapes, it is vulnerable to stretching and breaking.[31]

  For bound items in the Collection, such as books, magazines, and journals, heavy use could cause their sewing to lose, hinges to break, and crease the pages.[32]

  Contact/impact damage is also a concern. Hard object such as ceramic may break caused by fall. Normal use of the ceramic objects or contact them with other materials can cause scratches, dings, or cracks.[33]

- Surface contamination

  Surface contamination includes dirt, dust, mold, pests, and other foreign materials. Audiovisual media and books are particularly susceptible to mold. Mold's damage can change vinyl disc's playback sound quality. Book's covers and pages can be damaged or stained by pests.[34] All objects in the collection may be affected by accumulated dust.

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[28] Tanguay Photo Mag, "Stability of Color Films and Prints," last modified April 13, 2022, https://www.tanguayphotomag.biz/color-negative/stability-of-color-films-and-prints.html.

[29] Smithsonian Museum Conservation Institute, "Biological Deterioration & Damage to Furniture & Wooden Objects," accessed April 10, 2022, https://www.si.edu/mci/english/learn_more/taking_care/biodetwood.html.

[30] Preservation Self-Assessment Program, "Compact Disc (CD)," accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/opticalmedia#cd.

[31] Preservation Self-Assessment Program, "Compact Cassette," accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/audiotape#compactcassette.

[32] Preservation Self-Assessment Program, "Books and Bound Items: General Preservation Concerns," accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/bookbound.

[33] Preservation Self-Assessment Program, "Object Materials," accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/objectmaterials.

[34] Preservation Self-Assessment Program, "Books and Bound Items: General Preservation Concerns," accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/bookbound.

Soft materials like textiles, easily absorb dirt and dust, so they are more susceptible to staining and damage from them.

- Aging or equipment obsolescence

  The age of audio & video tapes, as well as equipment obsolescence, pose high risks.[35] Damage to textiles is also often age-related. As textile ages, they may discolor, darken, fade, and deteriorate (resulting in splits and losses in the material).[36]

[35] Greatbear Audio & Video Digitising, "1 inch type A/type B/type C," accessed May 9, 2022, https://thegreatbear.co.uk/project/1-inch-type-a-type-b-type-c/.
[36] The Conservation Center, "Textiles," accessed April 10, 2022, http://www.theconservationcenter.com/textiles?gclid=CjwKCAjwloCSBhAeEiwA3hVo_Xeg2kS_mnkPzkod3YHzXkHNrO0YO57ChmAbG6Xh_6Oa5winJA-2dRoCV8YQAvD_BwE.

REMEDIATION

Treatment

This section touched on treatment methods based on the formats of objects and the type of damages assumed in the previous section.

- Photographic materials

  General treatment of photographic materials that are damaged from surface contamination might include cleaning superficial dirt, removing mold, and removing of harmful mounts. When photographic materials are distorted caused of fluctuated temperature/relative humidity, the actions might include flattening the photographs. Dye fading or shifting of color films might need aqueous treatment to reduce discoloration.[37]

- Magnetic media

  Since magnetic media is particularly susceptible to surface contamination, cleaning the outer surface of the tape pack is necessary. Dust, dirt, or mold between the layers of tape can be removed by using tape winders or cleaners at a slow speed.[38] Additionally, it is important to keep the playback equipment in good working order. Particularly the playback and recording areas should be cleaned regularly.

- Realia

  Surface cleaning should take place when the realia are facing damage caused by surface contamination. The conservators may clean different objects with different tools, such as cotton swabs, brushes, scalpels, or vacuum cleaners, depending on the type of material that the objects were made of.[39] If realia objects have sustained water damage, they should be dried slowly so that they do not lose moisture too quickly.

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[37] Northeast Document Conservation Center, "About Photograph Conservation at NEDCC," accessed April 10, 2022, https://www.nedcc.org/photograph-conservation-at-nedcc/about.
[38] National Park Service, "Care of Archival Digital and Magnetic Media," *Conserve O Gram*, no. 19/20 (September 1996): 2, https://www.nps.gov/museum/publications/conserveogram/19-20.pdf.
[39] The Metropolitan Museum of Art, "What is Art Conservation," accessed May 9, 2022, https://www.metmuseum.org/-/media/files/learn/family-map-and-guides/museumkids/what-is-art-conservation.pdf.

- Book & Paper materials

  If the dirt on book pages is superficial, it can be removed by using a soft brush or by using a powdered eraser. In some cases, pest specks and mold residue must be removed mechanically with a spatula or an aspirator.[40] Immersion of paper in water also helps to remove dirt and stains. However, water treatment is not suitable for some paper materials, such as papers containing colors or water-soluble ink. When high-value books were physically damaged caused by poor handling/storage, extensive treatment is necessary, which could include mending and guarding pages, resewing, repairing the original covers, and reattaching them to the text.

Housing

The housings were selected based on the format of objects in the Bunraku Collection.

- Photographic materials

  Photographic materials should be housed within archival enclosures to protect against dust, light, handling damage, air pollutants, and temperature/humidity fluctuation. The enclosure may be an acid-free paper (lignin-free) or additive-free plastic (polyester, polypropylene, or polyethylene) sleeve, envelope, or wrapper.[41] Each film slide/print/negative should have its own enclosure. Prints can be matted with an acid-free rag or museum board for protection.[42] All enclosures should pass the Photographic Activity Test as outlined in ISO 18916. Slides may be stored flat or stored vertically with dividers between each slide.[43]

[40] Northeast Document Conservation Center, "Conservation Procedures | 7.6 Conservation Treatment for Bound Materials of Value," accessed April 10, 2022, https://www.nedcc.org/free-resources/preservation-leaflets/7.-conservation-procedures/7.6-conservation-treatment-for-bound-materials-of-value.

[41] Gaylord Archival, "Section 2: Archival Storage of Photographic Materials," accessed May 9, 2022, https://www.gaylord.com/resources/guide-to-collections-care/section-2#selectingmaterials.

[42] Library of Congress, "Care, Handling, and Storage of Photographs," accessed April 10, 2022, https://www.loc.gov/preservation/care/photo.html.

[43] Preservation Self-Assessment Program, "Slides & Transparencies," accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/slide.

- Audio & Videotapes

  Inert plastic (polyethylene) cases are preferably to house audio & videotapes.[44] Each tape should have its own case to protect against dust, handling damage, air pollutants, and changes in environmental conditions. All enclosures for magnetic media should be made of non-magnetizable material and physically & chemically stable. All magnetic media need to be stored vertically on end.[45]

- Compact disc & Vinyl disc

  The original packaging for CDs may have a hub that is too large or requires excessive pressure to remove the disc, thus plastic containers with non-damaging hubs are preferred for housing the discs.[46] Archival enclosures are preferably for housing vinyl discs. Plastic (polyester, polyethylene, or polypropylene) or paper (acid-free, lignin-free, and buffered materials) enclosures are acceptable, and they must pass the Photographic Activity Test as outlined in ISO Standard 18916. Each vinyl disc should have its own enclosure. Similarly sized discs should be stored together vertically (on-edge).[47]

- Realia

  Ceramics should be stored on shelves that are level, stable, and easily accessible. Keeping a safe distance from one ceramic to another is necessary.[48] They should be placed in acid-free boxes (with archival padding) and wrapped carefully with lignin-free tissue to prevent dust buildup and reduce the need for cleaning.[49] Objects made of wood should never be kept in direct sunlight or in a place where they will be bumped or jostled. Housing wooden objects (in ordinary sizes) into archival boxes is also necessary. As Gaylord Archival suggested, textiles can be stored in acid-free boxes with solid,

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[44] National Archives of Australia, "Preserving Magnetic Media," accessed May 9, 2022, https://www.naa.gov.au/information-management/storing-and-preserving-information/preserving-information/preserving-magnetic-media.
[45] Preservation Self-Assessment Program, "Audiotape," accessed May 9, 2022, https://psap.library.illinois.edu/collection-id-guide/audiotape.
[46] Preservation Self-Assessment Program, "Compact Disc (CD)," accessed May 8, 2022, https://psap.library.illinois.edu/collection-id-guide/opticalmedia#cd.
[47] Northeast Document Conservation Center, "Session 6: Media Collections: Storage and Handling of Media Collections," accessed May 9, 2022, https://www.nedcc.org/preservation101/session-6/6storage-and-handling-of-media-collections.
[48] Preservation Self-Assessment Program, "Object Materials," accessed May 9, 2022, https://psap.library.illinois.edu/collection-id-guide/objectmaterials.
[49] Guardian Fine Art Services, "Safe Storage and Display for Ceramic and Glass Objects," May 13, 2020, https://www.guardianfineart.com/artstoragetips/safe-storage-and-display-for-ceramic-and-glass-objects.

laminated, or corrugated board. Additionally, solid board boxes can be reinforced with metal corners. Using acid-free tissue allows the conservator to wrap textiles or pad three-dimensional forms.[50]

- Books & Paper materials

  According to the value and condition of the books, the housing method can be as simple as wrapping them in paper or as complex as providing them with a custom clamshell box to give them structural support and protect against light, dust, handling damage, and changes in environmental condition.[51] The custom box may be constructed in-house using acid-free materials.

Housing Products

In this section, I selected products from suppliers' catalogs for four formats listed with a star in the Bunraku Collection and indicated the number of supplies (along with cost) I would purchase for the need of housing them. The housing products are listed in the following spreadsheet:

https://docs.google.com/spreadsheets/d/1UMqg2uTYdYJbkh2qaV1fgPqi5IczjsVt/edit?usp=sharing&ouid=111487079295090276724&rtpof=true&sd=true

The formats I designated with a star are:

- 10" analog reel-to-reel audiotape

  This format was designated with a star since its risk level is high (has a limited life span) and should be housed extremely carefully. The type of product I selected and the number of supplies I decided meets the storage standard specified in the Housing section.

- Film slide

  This format was designated with a star since its preservation risk is moderate to high (supper sensitive to light exposure) and should be housed extremely carefully. The type

[50] Gaylord Archival, "Guide to Collection Care | Section 3: Archival Storage of Textiles," accessed April 10, 2022, https://www.gaylord.com/resources/guide-to-collections-care/section-3.

[51] Northeast Document Conservation Center, "7.4 Custom Protective Enclosures," accessed May 9, 2022, https://www.nedcc.org/free-resources/preservation-leaflets/7.-conservation-procedures/7.4-custom-protective-enclosures.

of product I selected and the number of supplies I decided meets the storage standard specified in the Housing section.

- Newspaper

  This format was designated with a star since its preservation risk is high (due to residual acids in groundwood pulp paper) and should be housed carefully. The product I select is space-efficient while not putting pressure on the newspapers. Since they contain non-toxic silica beads that absorb moisture from the air, the desiccant canisters in the product protect newspapers from moisture. The number of supplies will make sure that each newspaper has its own polyethylene bag that protects it from dust, handling damage, and changes in environmental conditions.

- Textile

  Textiles was designated with a star since they are among the most fragile of all artifacts and should be housed properly.[52] Their preservation risk is moderate high because they could easily be damaged by light exposure, poor handling, mold, dust, and pests. The product I selected will provide safe storage for textiles in the Collection. The number of supplies I decided will make sure that each textile has its own enclosure.

[52] Gaylord Archival, "Guide to Collection Care | Section 3: Archival Storage of Textiles," accessed May 9, 2022, https://www.gaylord.com/resources/guide-to-collections-care/section-3.

REFORMATTING

Reformatting and Digitization Actions

This section lists recommended reformatting or digitization actions for the materials in the Bunraku Collection.

- Photographic Materials

  There are several methods I would recommend for duplicating photographs in the Bunraku Collection, which include producing duplicate prints, creating microfilm indexes of photographs, digitizing the photographs, and saving them in the database.

  If the negatives are in a good condition, I would prioritize duplicating them since they contain more details than other photographic materials. The actions for duplicating negatives include using a large-format camera to produce a copy negative; using duplicating film to make a direct duplicate negative; creating a positive image from the original negative and then transferring the positive image to film to create a duplicate negative.[53]

- Audio & Videotapes

  Audio & video tapes' content can only be accessed by using playback machine. Frequent playback would shorten the life span of them. Thus, creating a preservation master for each of the audiotapes/videotapes in the Collection is necessary. While digital surrogate is preferred, analog reformatting also could be practiced.[54] It is important that the preservation master is stored in a well-managed and secure environment that is not intended for actual use.

- Book & paper

[53] Northeast Document Conservation Center, "Session 7: Reformatting and Digitization| Reformatting Media Collections," accessed April 10, 2022, https://www.nedcc.org/preservation101/session-7/7reformatting-media-collections.
[54] Northeast Document Conservation Center, "Session 7: Reformatting and Digitization| Reformatting Media Collections," accessed May 9, 2022, https://www.nedcc.org/preservation101/session-7/7reformatting-media-collections.

If high-value books and paper material in the Collection became too fragile or experienced moderate to extreme deterioration, digitization is a practical option. Photocopying books could cause the spine to break and damage the page if handled carelessly during the scanning process. A good way to avoid those damages is pressing gently on spines or using edge copiers to make images when margins are tight.

Priorities for Treatment and Imaging

This section determines the priorities for treatment and imaging based on the objects' format, value, usage, risk level, and other related factors.

- High priority

  Treatment and backing-up for audiovisual tapes should be highly prioritized since some of them have significantly shorter life expectancies than other formats in the Collection. Also, many audiovisual materials must be played in machines to retrieve their information. It is possible for playback equipment to become obsolete within a relatively short period of time, even with minimal use. It is also possible for magnetic media to fail without any warning.

  Materials made of wood pulp papers and newsprints should be prioritized for treatment and reformatting since their risk level is high due to their highly acidic nature.

  Color films & negatives should be prioritized because they will fade rapidly when exposed to light. They will gradually fade even if kept in dark storage.

  High priority should also be set for other materials that meet one or more of the following conditions: extremely deteriorated that need urgent treatment/duplication; highly interested by the public; high informational or artifactual value; frequently used; important to the Collection's mission; easy to be digitized, filmed, or copied.

- Moderate priority

  Moderate priority of treatment/duplication should be set for B&W photographic materials. Depending on their format, the priority could be differentiated: moderately low for fiber-based; moderate for resin-coated.

Moderate priority of treatment/imaging should also be set for realia in the collection since they are at moderate risk of damage from handling, surface contamination, and light exposure.

- Low priority

  Compact discs and vinyl discs could be given a lower priority since they are not at high risk of age-related deterioration, and their playback equipment is still readily accessible.[55] The priority of treatment and digitization of paper materials in the Collection is largely depending on the type of paper on which it was printed.

[55] Christopher Ann Paton, "Preservation Re-Recording of Audio Recordings in Archives: Problems, Priorities, Technologies, and Recommendations," *The American Archivist* (The Society of American Archivists, 2008), 190.

CONCLUSION

This assessment report uses the information from the Bunraku Collection's online finding aid to predict the format & the type of damage I would expect to find in the collection. I described how I would make decisions about treatment, re-housing, and reformatting. In this report, I applied knowledge gained during the SP22-INFO 632-Conservation and Preservation course at Pratt Institute as well as resources published online. Although this report is based on the real collection, I was not able to look at the actual collection to precisely detect the objects' format and condition. Thus, the Condition Assumption, Remediation section, and Reformatting section are focusing on the large group of objects rather than the individual of them.

The Bunraku is a big collection that has objects in a variety of formats. It is challenging to design a plan that covers the preservation needs of each type of material. Following are my recommendations:

- Store the objects based on their format instead of based on their subject matter
- Demonstrate the objects' format, condition, the year they were created/published, value, and other related metadata on the item lists
- Set priorities for each type of objects

APPENDIX

1.1 Count of Objects

13,571 slides

49 photo albums containing 205 contact sheets and 4,187 photo prints

6,225 photographs

1,087 negatives and color transparencies

60 audio cassettes

1 videocassette

7 audio cassettes (commercially produced)

3 vinyl records (commercially produced)

913 items of printed material

89 realia objects, including puppets, shoes, lecture, towel

26 boxes of personal papers

1.2 Item Lists

Series: Slides

Series: Photo Albums

1.3 Housing Product Spreadsheet

Archives Preservation Project - Housings
Name: Jing Zhao
Collection: Barbara Curtis Adachi Bunraku Collection

Format type	Name/description of housing product	Name of supplier	Product number or other precise description	Quantity	Cost
10" analog reel-to-reel audio tapes (quantity: 60)	10" Audio Tape Reel Archival Storage Box (one-piece box)	Bags Unlimited - Collection Protection Supplies	These acid-free, lignin-free museum grade storage boxes are made from 40pt. barrier board with a pH of 8.0-9.0. Metal reinforced corners, Unbuffered. Come with a removable 3" post.	60	$640.80
Film slides (quantity: 13,571)	35MM Slide Storage Kit - 2400	Archival Methods - Archival Storage and Preservation	Product number: 07-2400-TN The kit consists of four components: a) Metal Edge Box that holds and protects the 12 individual Slide Boxes. b) 35mm Slide Boxes to hold Slide Tray Bins c) Slide Tray Bins to group slides together d) Acid-free Slide Dividers for labeling (a) Short Top Master Box: Available in black, tan, and gray, this archival metal edge box serves as the outer box holding 12 of the Slide Boxes. 12-1/2 x 15 x 5-3/4' (b) 35mm Slide Box: Each box safely stores 200 standard, cardboard mounted slides. The box will hold approximately 100 glass-mounted slides. Interior Dimensions are 2 x 11-3/8 x 2-1/4" H. (Can be purchased separately in packages of 3.) (c) Slide Tray Bin: Holds twenty-five 35mm cardboard mounted slides each. Eight trays fit within each Slide Box. The trays have an extended back wall lip or tab for labeling. Trays have a "pop and lock" easy set-up design. (d) Acid-free 10 Pt Card Stock Slide Dividers separate any number of slides in Slide Tray Bin or Boxes. All components are manufactured from ArchivalGrade boxboard and made in the USA.	6	$1,095.00
Newspapers (quantity: 128)	Flat Broadsheet Newspaper Kit - 16 x 22"/ 20 x 24"	Archival Methods - Archival Storage and Preservation	Product number: 63-1622-P The kit includes a Tan Drop Front Metal Edge Box, 10 Polyethylene Bags, and a Plastic Desiccant Canister for humidity control. The desiccant canisters contain non-toxic silica beads that absorb moisture from the air.	13	$807.80
Textiles (quantity: 29)	Black Barrier Board Textile Box with Tissue	Gaylord Archival	Product number: 59071B This product features: safe storage for costumes, wedding gowns, quilts and other textiles; deep lid keeps out dust, dirt and damaging light; metal edges add strength and support; 25 unbuffered, acid-free sheets of 30 x 40" tissue paper	29	$1,624.00
					$4,167.60 Total

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