

# The Ohio State University Libraries

## Audiovisual Assessment Interim Report

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Preservation  
& Digitization  
Department



# THE OHIO STATE UNIVERSITY LIBRARIES AUDIOVISUAL ASSESSMENT INTERIM REPORT

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Sarah Murphy created all of the graphs within this report.

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Amy McCrory inherited supervision of the project approximately a year into the assessment after a change in unit leadership. Amy implemented a smooth transition and was quickly up to speed on the project and principles of audiovisual archiving and preservation.

Finally, Emily Shaw, former head of the Preservation and Digitization unit, now with the Obama Foundation. Emily persuaded library administration that an audiovisual preservation assessment was essential and advocated for hiring a specialist to conduct the assessment.



# TABLE OF CONTENTS

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<b>1. Executive Summary</b> .....	<b>04</b>
<b>2. Context</b> .....	<b>05</b>
<b>3. Project Terms &amp; Concepts</b> .....	<b>06</b>
<b>4. Physical Arrangement, Storage, &amp; Environment</b> .....	<b>07</b>
<b>5. Playback Equipment</b> .....	<b>08</b>
<b>6. Methodology</b> .....	<b>09</b>
6.1 Overview.....	09
6.2 Assessment Tools.....	09
<b>7. Assessment Results</b> .....	<b>10</b>
7.1 Overview.....	10
7.2 Audiovisual Formats Found During Assessment.....	11
7.3 PSAP Resource Scores.....	13
7.4 Biological Decay.....	13
7.5 Rare, Unique, or Commercially Produced.....	14
7.6 Digitized/Transferred Items in Assessed Collections.....	14
<b>8. Library Unit Summaries</b> .....	<b>15</b>
8.1 Billy Ireland Cartoon Library & Museum.....	15
8.2 Hilandar Research Library.....	16
8.3 Jerome Lawrence and Robert E. Lee Theatre Research Institute.....	17
8.4 Music & Dance Library.....	18
8.5 Ohio Congressional Archives.....	19
8.6 Rare Books and Manuscripts Library.....	21
8.7 The Ohio State University Archives.....	23
<b>9. Assessment Challenges</b> .....	<b>24</b>
<b>10. Conclusion: Outcomes &amp; Recommendations</b> .....	<b>25</b>
10.1 Assessment Outcomes.....	25
10.2 Essential Steps.....	25
10.3 Recommendations.....	26

# 1. EXECUTIVE SUMMARY

The 26-month audiovisual (AV) assessment took place from June 2017 to August 2019 with a focus on rare or unique audiovisual items. Curators and archivists within each unit identified collections or collecting areas for significance or research value. Approximately 65% of AV materials in seven library units has not been assessed. Upon completion, 18,389 audiovisual items in 32 distinct formats were individually assessed.

## Participating Ohio State University Libraries (OSUL) units:

- Billy Ireland Cartoon Library & Museum
- Hilandar Research Library
- Jerome Lawrence and Robert E. Lee Theatre Research Institute
- Music & Dance Library
- Ohio Congressional Archives
- Rare Books and Manuscripts Library
- The Ohio State University Archives

The information collected during the assessment allows the institution to make better informed preservation and digitization decisions. More information was needed than was available in catalog records, finding aids and by talking to staff within each library unit. Item level data was needed to further identify what audiovisual materials were in OSUL collections. According to Anthony Cocciolo in *Moving Image and Sound Collections for Archivists*, “Creating item-level records is becoming increasingly important for preservation, both in terms of knowing what you have and planning for reformatting.”<sup>1</sup> Information collected included identifying macro and micro storage conditions, the condition of each individual item, additional information written on the sides of items and containers, and identifying production elements and generations of recordings.

In summary, 6.2% of OSUL’s assessed audiovisual materials have been digitized or transferred to an accessible digital format.<sup>2</sup> 82.1% items assessed are unique, rare, or inferred rare materials. A small number of commercial recordings exist in the collections. The materials that have been digitized are mostly on CDs and DVDs, which is not a long-term preservation format. Less than 5 items from the Ohio Congressional Archives (OCA) are on hard drives in boxes and it is unknown when the hard drives were last accessed. 1.4% is available in an institutional repository, local network drive, or secure SFTP server. Many items have format specific issues such as vinegar syndrome and sticky shed syndrome, with deterioration being sped up with unsatisfactory macro and micro environmental conditions.

Ohio State’s audiovisual assessment is in alignment with the institution’s mission statement and values of stewardship, leveraging “the resources entrusted to us for maximum impact” and integrity, practicing “openness, accountability, and respect”.<sup>3</sup>

It’s infeasible as well as inadvisable to digitize every audiovisual item. However, the process is not all or nothing. The item level assessment information identifies what recordings in OSUL’s collections are rare, what recordings are unique, and what recordings are commercially produced. For recordings that are rare and have multiple copies, the best copies for digitization were identified if possible. This allows University Libraries to be a responsible steward by being efficient with resources.

1. Anthony Cocciolo, *Moving Image and Sound Collections for Archivists* (Chicago: Society of American Archivists, 2017), 33.

2. Transfer refers to digital audiotape and videotape

3. “Strategic Directions,” The Ohio State University Libraries, accessed September 3, 2019, <https://library.osu.edu/strategic-directions>.





**Other outcomes include:**

- Improved description and intellectual control of audiovisual items in assessed collections
  - After finding aids and catalog records are updated, improved discoverability of audiovisual materials
- Identification of collecting areas that are dispersed across multiple library units
  - This includes new material and additional generations of identified recordings

**The following actions are recommended:**

- Collaborate with other institutions
- Implement digitization of AV formats common at University Libraries in the Preservation and Reformatting unit
- Invest in grant opportunities
- Reevaluate the AV appraisal and reappraisal process
- Transfer recordings on CDs and DVDs to OSUL's preservation and access repositories, Digital Collections or Knowledge Bank, as appropriate

## 2. CONTEXT

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Audiovisual surveys and censuses have been completed by other institutions such as Cornell University, Smithsonian Institution, University of Illinois at Urbana-Champaign, and Indiana University. These high-level evaluations of audiovisual holdings shaped OSUL item level audiovisual assessment.

**AV surveys and censuses by other institutions:**

- Indiana University: "[Media Preservation Survey](#)" (2009)
- University of Illinois at Urbana-Champaign: "[Illinois Campus Media Census: Final Report](#)" (2014)
- Cornell University: "[Cornell University Audiovisual Preservation Initiative Survey Report](#)" (2017)
- Smithsonian Institution: "[Pan-Institutional Audiovisual Collections Survey](#)" (2017)<sup>4</sup>

These reports, especially Indiana's innovative 2009 survey and their subsequent publications, outline in great detail the ongoing crisis in the field of audiovisual archiving and preservation.

According to The Library of Congress National Recording Preservation Plan from December 2012, "Many endangered analog formats must be digitized within the next 15 or 20 years before further degradation makes preservation efforts all but impossible."<sup>5</sup> It is now 2019, seven years after the initial report was published, leaving even less time available.

International Association of Sound and Audiovisual Archives' (IASA) 2017 report, "The Safeguarding of the Audiovisual Heritage: Ethics, Principles, and Preservation Strategy", goes further by identifying the two main issues, technical obsolescence and degradation. The report also describes a list of audiovisual formats endangered by improper handling, age and inherent instability that include "wax or celluloid cylinders, nitrate film, instantaneous audio discs of all types, especially "lacquer" discs, acetate tapes,

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4. The Smithsonian Institution's July 2019 "[Audiovisual Preservation Readiness Assessment](#)" report was released as Ohio State's audiovisual assessment was concluding.

5. Brenda Nelson-Strauss et al., eds., *The Library of Congress National Recording Preservation Plan*, CLIR Publication 156 (Washington, D.C: Council on Library and Information Resources, 2012), 2: <https://clir.wordpress.clir.org/wp-content/uploads/sites/6/pub156.pdf>.



acetate film showing signs of color fading, unless stored frozen, ½” EIAJ video tapes, U-matic tapes, and recordable optical media (CD-R, DVR-R etc.).”<sup>6</sup>

Of the prioritized audiovisual formats listed in IASA’s report, the highest priority is given to lacquer discs.<sup>7</sup> The only formats not identified during OSUL’S audiovisual assessment are nitrate film and wax cylinders.

**Table 1. AV formats in OSUL’s collections identified by IASA as priority**

FORMAT	NUMBER OF ITEMS	PERCENTAGE FOUND IN ASSESSMENT
Lacquer audio disc	2,145	12%
¼” acetate open reel audiotape	286	1.5%
35mm & 16mm acetate film (color)	257	1.3%
½” CV & EIAJ open reel videotape	204	1.1%
U-matic videocassette	608	3.3%
Recordable CD/DVD	3,410	18.5%

Of the 18,389 items included in the assessment, 36.6-37.7% are one of the endangered formats identified by IASA. The assessment did not include differentiating between CV and EIAJ ½” open reel videotape. If all ½” open reel videotape is excluded, it’s 36.6% and if all ½” open reel videotape is included it’s 37.7%.

Every assessed unit has acetate ¼” open reel audiotapes and every unit but the Hilandar Research Library has recordable CD/DVDs.

### 3. PROJECT TERMS & CONCEPTS

The definition of audiovisual material for the assessment is analog and digital moving images and audio on physical carriers. A carrier is a medium that holds information.<sup>8</sup> Data tape and CD/DVDs with still images, while discovered during the assessment, were out of scope of the project. If an analog item was digitized or a digital audio or moving image was transferred to a CD or DVD and there was a copy in the collection, that was also counted.

For this report, the term compact cassette is being used instead of audiocassette. While audiocassette is an informal term the format is also known by, the author is attempting to avoid confusion between compact cassettes and all cassette/cartridge-based audiotapes.

“Generations of recordings” or “generation” refers to the “number of times a recording is removed from its original format”.<sup>9</sup> A second-generation item is an item that has been copied from the master or original.<sup>10</sup>

6. IASA Technical Committee, “The Safeguarding of the Audiovisual Heritage: Ethics, Principles and Preservation Strategy”, Co-Edited by Will Prentice and Lars Gaustad, Version 4 (International Association of Sound and Audiovisual Archives, 2017), 18: <https://www.iasa-web.org/tc03/ethics-principles-preservation-strategy>.

7. Ibid.

8. Cocciolo, *Moving Image and Sound Collections for Archivists*, 197.

9. Samuel Brylawski et al., eds., *ARSC Guide to Audio Preservation*, CLIR Publication 164 (Washington, DC: Council on Library and Information Resources, 2015), 226: <https://clir.wordpress.clir.org/wp-content/uploads/sites/6/pub164.pdf>.

10. “First Generation / Master / Original Items,” Preservation Self-Assessment Program, accessed October 20, 2019, <https://psap.library.illinois.edu/advanced-help/av-opticalmedia#uniquecontent>.



The original audiovisual item is the most valuable iteration of the item that you can have, because it should have the best audio and video quality possible when compared to its copies. (This assumes, of course, that the original has been well preserved and is in good shape.) Another reason for giving priority to the original is that it may be the only iteration there is of the item. This means that any damage that occurs to the original could mean that information is lost forever. Even if you have a copy, damage to the master means that you must resort to using copies that may have inferior picture and/or sound.<sup>11</sup>

This report is not a summary of best practices within the audiovisual archiving and preservation community. The purpose of the report is to summarize assessment findings and provide direction for OSUL. Standards and best practices referenced in this report come from reputable organizations including the International Association of Sound and Audiovisual Archives (IASA), Association of Moving Image Archivists, Association of Recorded Sound Collections (ARSC), Society of American Archivists (SAA), Northeast Document Conservation Center (NDCC), Image Permanence Institute (IPI), Council on Library and Information Resources (CLIR), United Nations Educational, Scientific and Cultural Organization (UNESCO), and International Organization for Standardization (ISO).

## 4. PHYSICAL ARRANGEMENT, STORAGE, & ENVIRONMENT

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For the assessed items that are a part of archival collections, most of the audiovisual material is in a separate series or subseries. Depending on the amount of audiovisual materials in the collection, the series and subseries may be broken down by audiovisual format. Most audiovisual items are not housed in the same boxes as paper records from the same collection though it depends on the amount of audiovisual material in the collection.

For audiovisual items that are not individually cataloged and a part of archival collections, most are stored in standard cubic foot record storage boxes or cartons (10" x 12" x 15"). Most collections did not follow best practices for the orientation of audiovisual items. Anthony Cocciolo notes in *Moving Image and Sound Collections for Archivists*, films should be stored horizontally, and optical media, videotapes, phonographic records, and audiotapes should be stored vertically.<sup>12</sup> When possible, audiovisual items were reoriented in their boxes to follow best practices. This depended on the number of items in the box and the size of the items. Large videotapes in individual cases taller than 10 inches, could not be reoriented as the item was taller than the box. This is the case with many large videotapes with individual cases in the Jerome Lawrence and Robert E. Lee Theatre Research Institute (TRI)'s Marcel Marceau American Collection. Audiovisual items that are larger than a standard cubic foot record storage box or carton, like 2" open reel videotapes and film reels, are housed in different containers. This can include original containers in poor condition, like rusty film cans.

A keyword search for "rust" within the OSUL AV assessment identifies 2,575 results. The results refer to the number of films in rusty film cans, not the number of rusty film cans themselves. There are many instances where there is more than 1 film in a film can. University Archives (UA) has 2,527 films in rusty cans. The additional 48 films are in Ohio Congressional Archives (OCA), TRI, and Billy Ireland Cartoon Library and Museum (BICLM). The Joanne Grant Films at Rare Books and Manuscripts Library (RBML) is the only assessed collection where all films in the collection have been rehoused in archival film cans. Some films in the John Glenn Archives at OCA have also been rehoused in archival film cannisters.

Every storage location has a datalogger to track temperature and relative humidity. Most locations have had dataloggers for multiple years although there are instances of locations not receiving dataloggers

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11. Ibid.

12. Cocciolo, *Moving Image and Sound Collections for Archivists*, 26.



until fairly recently. The Music & Dance Library (MUS) did not receive one until 2017 when assessment planning started, and one special collections storage room in BICLM did not receive a datalogger until mid-2019.

The locations where OSUL's audiovisual items are stored have temperature and relative humidity (RH) settings best for paper-based library and archival materials, not audiovisual items. The Northeast Document Conservation Center recommends a "stable temperature no higher than 70°F and a stable relative humidity between a minimum of 30% and a maximum of 50%" for paper-based library and archival materials.<sup>13</sup> All audiovisual items require cooler temperatures. For example, recommended temperature and relative humidity for long-term storage of audio formats is 46-53°F with 25-35% RH.<sup>14</sup>

**Table 2. OSUL storage locations where assessed AV materials are housed**

	<b>AVERAGE TEMPERATURE (°F)</b>	<b>AVERAGE RELATIVE HUMIDITY</b>
BICLM: Room A	65.8	45
BICLM: Room B	65.9	46
BICLM: Room C	61.1	52
Book Depository Module 1	61.7	47
Book Depository Module 2	62.8	46
Music & Dance	72.5	38
Thompson Library: Room A	59.3	38
Thompson Library: Room B West	63.3	32
Thompson Library: Room B South	61.1	36
Off Site Storage Location	64.5	46

All locations where audiovisual items are currently stored have higher temperature and relative humidity settings than best practice recommendations. OSUL has two locations that are considered cold storage but don't have a low temperature, one located at University Archives that with an average temperature of 61.8°F and the other at Thompson Library with an average temperature of 60.7°F. There are no assessed moving image or audio items stored in either room.<sup>15</sup>

OSUL also does not have a disaster plan.

## 5. PLAYBACK EQUIPMENT

OSUL has a small number of playback machines for various AV formats. The available playback equipment are not professional playback machines and are not being professionally maintained.

There is a moratorium on using the playback equipment as any patron requested access to recordings is fulfilled through a preservation quality AV digitization vendor. The moratorium is intended to protect fragile or unstable formats from damage by equipment during playback.

13. Sheryl Ogden, "2.1 Temperature, Relative Humidity, Light, and Air Quality: Basic Guidelines for Preservation," Northeast Document Conservation Center, accessed October 20, 2019, <https://www.nedcc.org/free-resources/preservation-leaflets/2.-the-environment/2.1-temperature.-relative-humidity.-light.-and-air-quality-basic-guidelines-for-preservation>.

14. Brylawski et al., eds., *ARSC Guide to Audio Preservation*, 69.

15. For more information on ISO temperature and RH standards for media, see: Peter Z. Adelstein, "IPI Media Storage Quick Reference," Image Permanence Institute, 2<sup>nd</sup> edition (Rochester: 2009), [https://www.imagepermanenceinstitute.org/webfm\\_send/301](https://www.imagepermanenceinstitute.org/webfm_send/301).



## 6. METHODOLOGY

### 6.1 Overview

Audiovisual preservation surveys completed by other institutions were consulted and basic procedures for the assessment were created after evaluating previous surveys. Each library unit picked four to six collections or collecting areas. “Collecting areas” was later added for the library units that had multiple small archival collections about a specific individual or topic. Individually cataloged items such as the School of Music Recordings at the Music & Dance Library and the Festival of Cartoon Art Recordings at BICLM are each considered one collection.

The four to six collections or collecting areas per unit were selected for their significance or research value. For some library units, this is a small percentage of all AV items that exist in the entire unit.

**Table 1. Percentage of non-assessed AV in each OSUL unit**

NAME OF LIBRARY UNIT	PERCENTAGE OF NON-ASSESSED AV MATERIALS IN EACH UNIT
Billy Ireland Cartoon Library & Museum	80%
Hilandar Research Library	75%
J. Lawrence and R. E. Lee Theatre Research Institute	90%
Music & Dance Library	20%
Ohio Congressional Archives	30%
Rare Books and Manuscripts Library	80%
The Ohio State University Archives	80%

The order the units were assessed in was determined by the availability of physical space and the main contacts within the units. Assessment tasks were completed in reading rooms and staff workspaces across campus.

Information was collected through visual inspection of items. During the visual inspection process, write protection for all cassette/cartridge-based video and audiotapes was enabled. If possible, items were re-orientated to follow orientation best practices.<sup>16</sup> The assessment did not include playback of items.

While basic procedures were created and followed, each unit had distinct situations and procedures were adjusted for each unit. Conditions that affected the assessment included: where the audiovisual items were stored; schedules of main contacts within each unit; varying levels of description; whether items were individually cataloged, or described in finding aids; and the number of items and different formats within collections or collecting areas that were selected for assessment.

### 6.2 Assessment Tools

A variety of inventory and assessment tools were identified, including basic spreadsheets, the Preservation Self-Assessment Program (PSAP) by University of Illinois at Urbana-Champaign, AVCC and Catalyst by AVPreserve, and MediaSCORE & MediaRIVERS by AVPreserve and Indiana University. AVPreserve’s [A Comparison of Inventory & Assessment Tools](#) spreadsheet outlined the features of their various assessment and inventory tools. PSAP was eventually chosen for its functionality, convenience, and price. PSAP didn’t require a server or subscription-based hosting.

16. See Physical Arrangement, Storage, & Environment section

PSAP “helps collection managers prioritize efforts to improve conditions of collections. Through guided evaluation of materials, storage/exhibit environments, and institutional policies, the PSAP produces reports on the factors that impact the health of cultural heritage materials, and defines the points from which to begin care.”<sup>17</sup>

PSAP creates assessment scores using disaster plan and security information, amount of working and regularly serviced playback equipment, playback and handling of items, condition of container, and temperature and relative humidity of storage location.

There are four types of assessment scores, institutional score, preservation infrastructure score, storage environment score and resource score. The most important score for Ohio State’s assessment is resource score. “Resource” in PSAP refers to a single audiovisual item or object.

Resource score is created by adding the condition of individual item, inherent vice of the format, and environmental factors that affect the item.

$$\text{Resource score formula} = \text{ASSESSMENT} \times 0.5 + \text{FORMAT} \times 0.4 + \text{LOCATION} \times 0.05 + \text{TEMPERATURE} \times 0.025 + \text{RELATIVE HUMIDITY} \times 0.025$$

Some formats are more stable than others and format stability is not always tied to the age of the item. Vinyl audio discs are “the most stable physical sound recording format developed to date”.<sup>18</sup> Meanwhile, recordable CDs and DVDS are good tools for access but unreliable and not a long-term preservation format.<sup>19</sup>

According to PSAP, it’s almost impossible to receive a resource score of 100 or 0 and most scores will be between 90 and 50. A low score is a score below 60, a moderate school is a score of 60-80 and a high score is a score above 80.<sup>20</sup>

Item records in PSAP are updated as information for items changes. Updated information can include if an item is placed in an archival container or if an analog item is digitized.

## 7. ASSESSMENT RESULTS

### 7.1 Overview

Overall, 18,389 items in 29 collections from seven OSUL units were assessed. Findings include analysis of AV format categories, format types, and format bases; PSAP scores for every assessed item; amount of biological decay; if items are rare, unique, or commercially produced; number of digitized/transferred items, and individual library units.

17. “About the PSAP,” Preservation Self-Assessment Program, accessed September 3, 2019, <https://psap.library.illinois.edu/about>.

18. Brylawski et al., eds., *ARSC Guide to Audio Preservation*, 19.

19. Kevin Bradley, “Risks Associated with the Use of Recordable CDs and DVDs as Reliable Storage Media in Archival Collections: Strategies and Alternatives,” Memory of the World Programme, Sub-Committee on Technology (Paris: UNESCO, October 2006), <https://unesdoc.unesco.org/ark:/48223/pf0000147782>.

20. “How Should I Interpret Assessment Scores?,” Preservation Self-Assessment Program, accessed September 17, 2019, <https://psap.library.illinois.edu/manual#scorereport>.

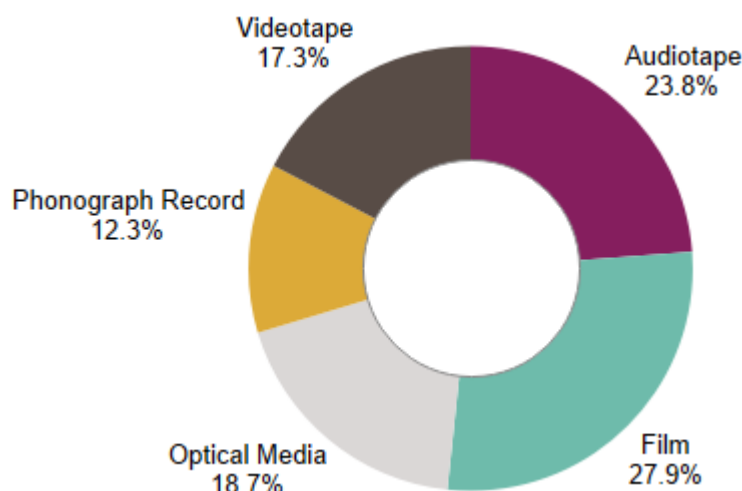


**Table 3. Number of items and collections assessed by OSUL unit**

NAME OF LIBRARY UNIT	NUMBER OF COLLECTIONS	NUMBER OF ITEMS
Billy Ireland Cartoon Library & Museum	5	1,103
Hilandar Research Library	1	5
J. Lawrence and R. E. Lee Theatre Research Institute	6	2,418
Music & Dance Library	1	3,158
Ohio Congressional Archives	4	796
Rare Books and Manuscripts Library	8	2,973
The Ohio State University Archives	4	7,936

## 7.2 Audiovisual Formats Found During Assessment

Main format categories include film, video, audio, phonographic record, and optical media.

**Figure 1. Categorization of AV format types**

The audiovisual formats categories can be further classified into specific formats and format bases.

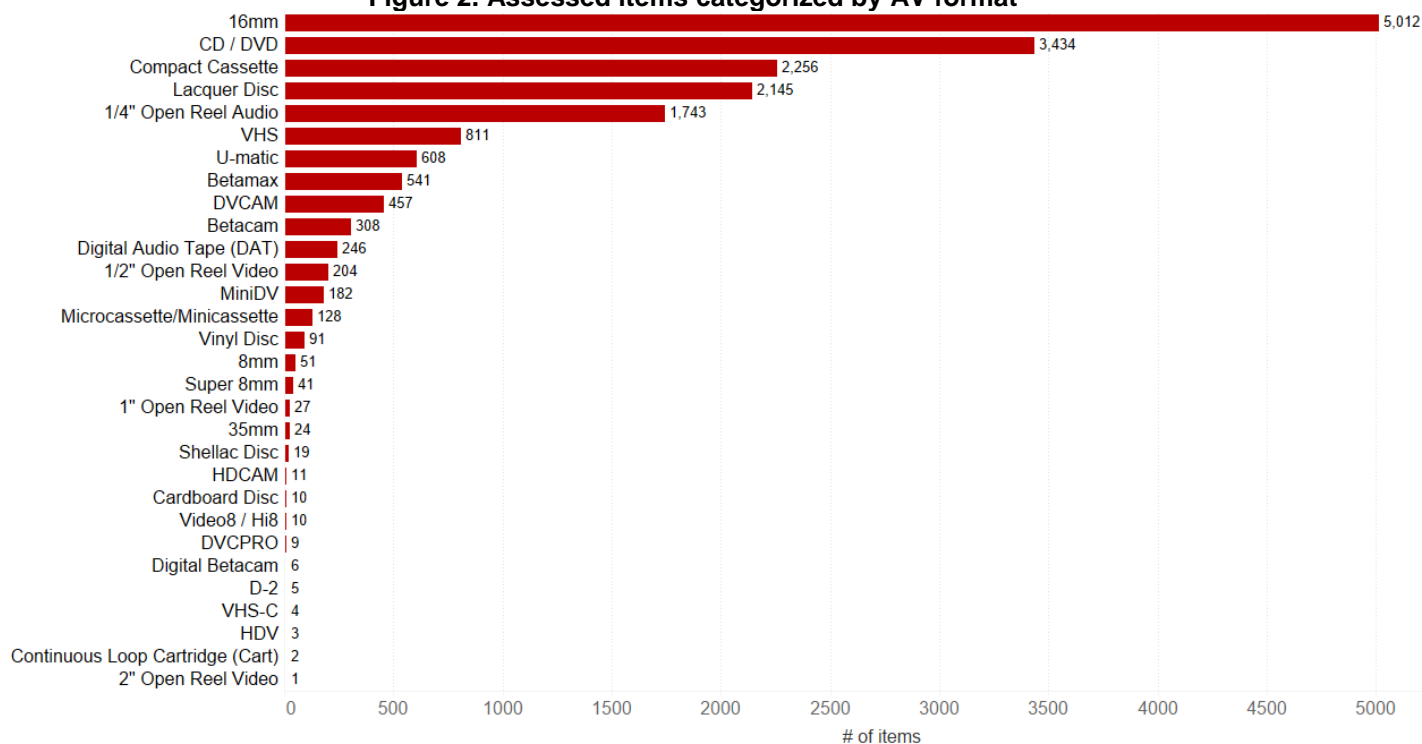
### Format Types

- **Film:** 35mm, 16mm, 8mm, Super 8
- **Video:** U-matic, Betamax, VHS, Betacam, Video8/Hi8, D-2, Digital Betacam, DVCAM, MiniDV, DVCPRO, HDCAM, HDV, VHS-C<sup>21</sup>, 2" open reel videotape, 1" open reel videotape, ½" open reel videotape
- **Audio:** continuous loop cartridge (cart), compact cassette (audio cassette), mini-cassette/microcassette<sup>22</sup>, digital audiotape (DAT), ¼" open reel audiotape
- **Phonographic Record:** vinyl disc, lacquer disc, shellac disc, cardboard disc<sup>23</sup>
- **Optical Media:** CD/DVD

21. In PSAP as "Unidentified/Other video" as PSAP does not have a VHS-C category. All items selected as "Unidentified/Other video" are VHS-C videocassettes

22. Mini-cassette and microcassette are different audio formats that requirement different playback equipment. The tool used to collect assessment data did not have a 'unknown cassette audio' format selection and microcassette was selected for mini-cassettes. Microcassette is the option that was closest of the available options.

23. In PSAP as "Unidentified" as PSAP does not a cardboard disc category. All items selected as "Unidentified" in PSAP are cardboard discs.

**Figure 2. Assessed items categorized by AV format**

### Format Bases

- **35mm:** acetate base, polyester base
- **16mm:** acetate base, polyester base, unknown base
- **1/4" open reel audiotape:** acetate base, polyester base, paper base, unknown base
- **CD/DVD:** factory pressed and recordable (-R, -RW)

It is valuable to identify the bases for audiovisual formats that have them as the bases have different preservation issues.

Additional format base categories exist like nitrate for 35mm film, although the report only addresses format bases identified during the assessment. Unknown base is a category because some assessed films and 1/4" open reel audiotapes were housed on solid metal or plastic reels. The solid reels make it impossible to complete a "light test" to identify the formats' bases. In motion picture film, base is a "transparent layer that supports photographic emulsion".<sup>24</sup> The three motion picture film bases are cellulose nitrate, cellulose acetate, or polyester plastic.<sup>25</sup> When held up to light, acetate film is opaque while polyester film is translucent.<sup>26</sup>

24. National Film Preservation Foundation, *The Film Preservation Guide: The Basics for Archives, Libraries, and Museums*, 1st ed. (San Francisco: National Film Preservation Foundation, 2004), 101: <https://www.filmpreservation.org/userfiles/image/PDFs/fpg.pdf>.

25. *Ibid.*, 8.

26. Cocciolo, *Moving Image and Sound Collections for Archivists*, 124.



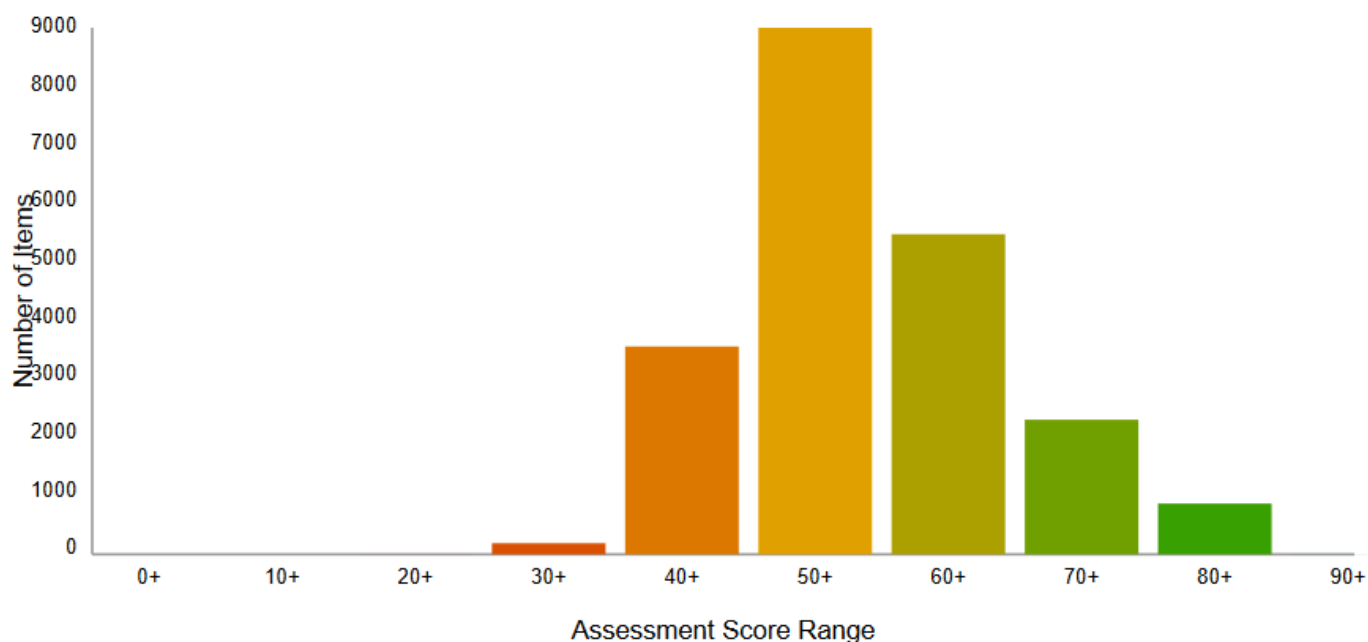


**Figure 3. Categorization of format base types**

1/4" Open Reel Audio Polyester	1,434
1/4" Open Reel Audio Acetate	286
1/4" Open Reel Audio Paper	22
1/4" Open Reel Audio Unknown b..	1
16mm, Acetate	2,842
16mm, Polyester	2,146
16mm, Unknown base	24
35mm, Acetate	21
35mm, Polyester	3
(-R, -RW) Recordable	3,410
Factory-pressed	24

## 7.3 PSAP Resource Scores

As previously noted in the above "Assessment Tools" section, low PSAP scores are scores below 60, moderate scores are scores 60 to 80, and high scores are scores above 80.<sup>27</sup>

**Figure 4. PSAP Scores for every assessed item**

In summary, 59% have low PSAP scores, 37% have moderate scores, and 4% have high PSAP scores.

## 7.4 Biological Decay

A number of items from Hilandar Research Library's Pimen M. Sofronov Collection and Billy Ireland Cartoon Library & Museum's Larry Ivie Papers were covered in unknown substances thought to be dirt or mold. These items were cleaned prior to digitization. When the items returned from the digitization vendor, the PSAP records for the items were updated to reflect the change. After the records in the Ivie and Sofronov collections were updated, 65 assessed items have mold damage, one item has pest damage, and two items have mold and pest damage.

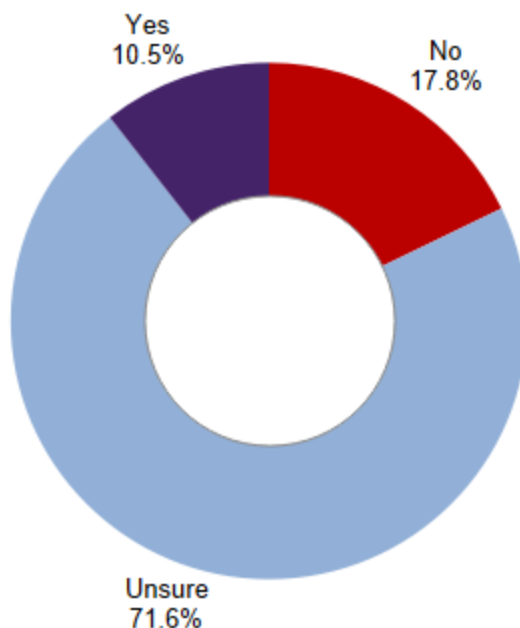
<sup>27</sup> "How Should I Interpret Assessment Scores?," Preservation Self-Assessment Program, accessed September 17, 2019, <https://psap.library.illinois.edu/manual#scorereport>.



## 7.5 Rare, Unique, or Commercially Produced

PSAP Question: Is this a unique item in terms of its content?

Figure 5. Answer to PSAP question: “Is this a unique item in terms of its content?”



Items were only marked “Yes” for PSAP’s “Is this a unique item in terms of its content?” question if the item was a master copy or master negative. A master copy is “the highest fidelity version of a moving image or sound asset”.<sup>28</sup> A master negative is “film used to create positive intermediaries or distribution copies. The master negative is usually the film that was originally exposed in the camera.”<sup>29</sup>

Unsure is an important category as for many items, its uncertain if the item is the only copy available. The unsure category also includes all rare items.

Items are marked “No” for the “Is this a unique item in terms of its content?” question if the item was commercially produced or it’s a rare or unique item with an accessible digital copy. An assessible digital copy is digital content that OSUL has playback equipment for. This includes optical media and copies on local network drives. OSUL does not have playback equipment for digital video and audio on tape carriers.

An item is no longer considered unique once it is digitized or transferred to an accessible format. This includes the camera originals, masters and negative items that have been digitized. However, the majority of the content marked as “no” are commercial recordings, not items that have been digitized or transferred to an accessible format.

## 7.6 Digitized/Transferred Items in Assessed Collections

1,158 items or 6.3% of assessed audiovisual items have been digitized or transferred to an accessible digital format. Accessible digital formats include CD/DVDs and digital files not stored on a carrier. Digital

28. Cocciolo, *Moving Image and Sound Collections for Archivists*, 202.

29. Richard Pearce-Moses, “Master Negative,” in *A Glossary of Archival and Records Terminology*, Archival Fundamentals Series II (Chicago: The Society of American Archivists, 2005), 243: <http://files.archivists.org/pubs/free/SAA-Glossary-2005.pdf>.



video and audio on videotape and audiotape are not considered accessible because OSUL does not have the playback equipment required to play the formats.

1,089 items or 94% of the digitized/transferred items were digitized/transferred before the creation of OSUL's AV patron request digitization pilot program in 2017. These items were therefore digitized/transferred without the consultation of the Preservation and Digitization unit and best practices may not been followed.

**Table 4. Number of digitized AV Items in assessed collections**

UNIT	COLLECTION NAME	NUMBER OF ITEMS
Billy Ireland Cartoon Library & Museum	Milton Caniff Collection	4
	Festival of Cartoon Art Recordings	16
	Larry Ivie Collection	37
	Arn Saba/Katherine Collins Papers	102
Ohio Congressional Archives	John Glenn Archives	28
Hilandar Research Library	Pimen M. Sofronov Collection	5
Music & Dance Library	School of Music	2
J. Lawrence and R. E. Lee Theatre Research Institute	Jarka Burian Collection <sup>30</sup>	756
	Dance Notation Bureau Collection	10
Rare Books and Manuscripts Library	Jessica Mitford Papers	194
University Archives	Department of Photography and Cinema Records	3
	School of Music Studio Recordings	1

## 8. LIBRARY UNIT SUMMARIES

### 8.1 Billy Ireland Cartoon Library & Museum

Established in 1977 as the Milton Caniff Reading Room, the Billy Ireland Cartoon Library & Museum holds the "world's largest collection of materials related to cartoons and comics".<sup>31</sup> The institution is currently located in Sullivant Hall and a part of University Libraries' Special Collections.

Assessed collections include Milton Caniff Collection (SPEC.CGA.MAC), Festival of Cartoon Art Recordings (items are individually cataloged), Larry Ivie Collection (SPEC.CGA.LIV), Arn Saba/Katherine Collins Papers (SPEC.CGA.ASKC), and National Cartoonists Society Records (SPEC.CGA.NCS).

**Table 5. Number of AV items in each assessed BICLM collection**

NAME OF COLLECTION	NUMBER OF ITEMS
Milton Caniff Collection (SPEC.CGA.MAC)	466
Festival of Cartoon Art Recordings (items are individually cataloged)	300
Larry Ivie Collection (SPEC.CGA.LIV)	38
Arn Saba/Katherine Collins Papers (SPEC.CGA.ASKC)	217
National Cartoonists Society Records (SPEC.CGA.NCS)	82

30. Some of the Burian CD/DVDs may be copies of each other. For more info, see the Jerome Lawrence and Robert E. Lee Theatre Research Institute section.

31. "About BICLM," The Ohio State University Libraries, accessed September 3, 2019, <https://library.osu.edu/biclm/about>.

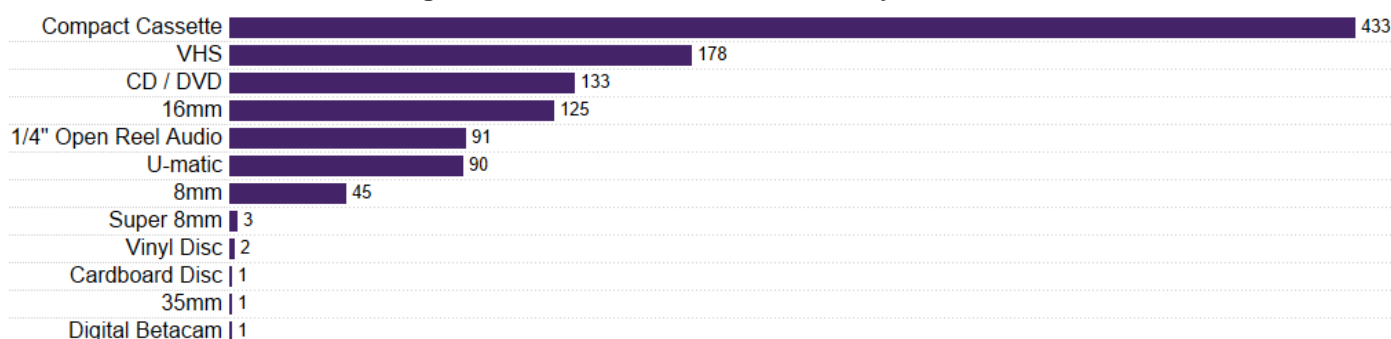


At the time of the assessment, collections were currently being processed, unprocessed, or processed in their entirety. The survey was completed by identifying audiovisual materials in inventories, finding aids, and catalog records and pulling materials so they could be individually evaluated. Of the five collections, 1,103 items in various audiovisual formats were assessed.

The collections include home movies, interviews, radio programs, television shows, materials related to the United States Air Force, cartoon festival recordings, meetings from cartoon societies, and other audiovisual materials. Collection information is located in finding aids and individual catalog records.

Formats include compact cassette, 1/4" open reel audiotape (acetate and polyester), 35mm film (acetate), 16mm film (acetate and polyester), 8mm film, Super 8 film, CD/DVD (recordable), vinyl audio disc, cardboard audio disc, U-matic videocassette, VHS videocassette, and Digital Betacam videocassette.

**Figure 6. Assessed BICLM materials by format**



All of the audiovisual items in the Larry Ivie Collection and Arn Saba/Katherine Collins Papers have been digitized. A small number of items from Milton Caniff Collection and Festival of Cartoon Art Recordings have also been digitized. All of Ivie and a small number of items from Caniff and Festival of Cartoon Art were digitized after BICLM's portion of the assessment took place. The digital files are stored on a local network drive and do not have CD/DVD copies. All of Saba/Collins and the Caniff and Festival of Cartoon Art AV items digitized prior to the assessment have CD/DVD copies in their respective collections.

Festival of Cartoon Art Recordings and National Cartoonist Society Papers contains generations of the same recordings. The National Cartoonist Society has recordings on 1/4" open reel audiotape and compact cassette while the Festival of Cartoon Art has recordings on U-matic videocassette, VHS videocassette, and DVD. It isn't known if the DVDs in the Festival of Cartoon Art Collection are transfers from U-matic or VHS.

Additional recordings of or about Milton Caniff can be found at University Archives.

## 8.2 Hilandar Research Library

Established in 1984 as a result of Ohio State's Hilandar Research Project (1969-1984), the Hilandar Research Library "promotes the education and research of medieval Slavic cultural heritage".<sup>27</sup> Located at Thompson Library since its inception, the unit is a part of University Libraries' Special Collections.

**Table 6. Number of AV items in the assessed HLR collection**

27. Predrag Matejic, "Hilandar Research Library & Resource Center for Medieval Slavic Studies at The Ohio State University," *Cyrillic Manuscript Heritage* 40 (August 2017): 8–9; "About Hilandar Research Library," The Ohio State University Libraries, accessed September 3, 2019, <https://library.osu.edu/hrl/about>.



NAME OF COLLECTION	NUMBER OF ITEMS
Pimen M. Sofronov Collection (SPEC.HRL.SOFRONOV)	5

One collection was assessed, the Pimen M. Sofronov Collection (SPEC.HRL.SOFRONOV). The collection includes five ¼" open reel audiotapes (acetate and polyester) and was unprocessed at time of assessment. The five items were later digitized with the digital files being stored on a local network drive.

### 8.3 Jerome Lawrence and Robert E. Lee Theatre Research Institute

Established in 1951 as the Ohio State University Theatre Collection, the Jerome Lawrence and Robert E. Lee Theatre Research Institute became a part of University Libraries in 1986. TRI "makes accessible materials that reveal our performing arts culture and history for scholarship and education".<sup>33</sup> Located at Thompson Library, the unit is a part of University Libraries' Special Collections.

Assessed collections include Recording and Suit from the Ohio State University, Advanced Computing Center for the Arts and Design Motion Capture Project with Marcel Marceau (SPEC.TRI.0025), WBNS-TV "Maestro of Mime" Project Recordings (SPEC.TRI.0026), Recordings from Marcel Marceau's Residency at Ohio State University (SPEC.TRI.0027), Marcel Marceau American Collection (SPEC.TRI.MMA), Dance Notation Bureau Collection (SPEC.TRI.DNB), and Jarka Burian Collection (SPEC.TRI.JAR).

**Table 7. Number of AV items in each assessed TRI collection**

NAME OF COLLECTION	NUMBER OF ITEMS
Recording and Suit from the Ohio State University, Advanced Computing Center for the Arts and Design Motion Capture Project with Marcel Marceau (SPEC.TRI.0025)	38
WBNS-TV "Maestro of Mime" Project Recordings (SPEC.TRI.0026)	7
Recordings from Marcel Marceau's Residency at Ohio State University (SPEC.TRI.0027)	10
Marcel Marceau American Collection (SPEC.TRI.MMA)	472
Dance Notation Bureau Collection (SPEC.TRI.DNB)	780
Jarka Burian Collection (SPEC.TRI.JAR)	1,111

At the time of the assessment, collections were currently being processed, unprocessed, or processed in their entirety. Collections information is located in finding aids. The assessment was completed by identifying audiovisual materials in inventories and finding aids and pulling materials so they could be individually evaluated. Of the six collections, 2,418 items in various audiovisual formats were assessed. The collections include interviews, radio programs, television shows, dance performances, dance rehearsals, dance demonstrations, public relations clips, production elements, and other audiovisual materials.

Only the processed portion of the Dance Notation Bureau Collection was assessed. Recent accessions to the collection also contain AV materials. The Dance Notation Bureau Collection is one of two collections in the assessment where the collection's AV materials were not assessed in their entirety.

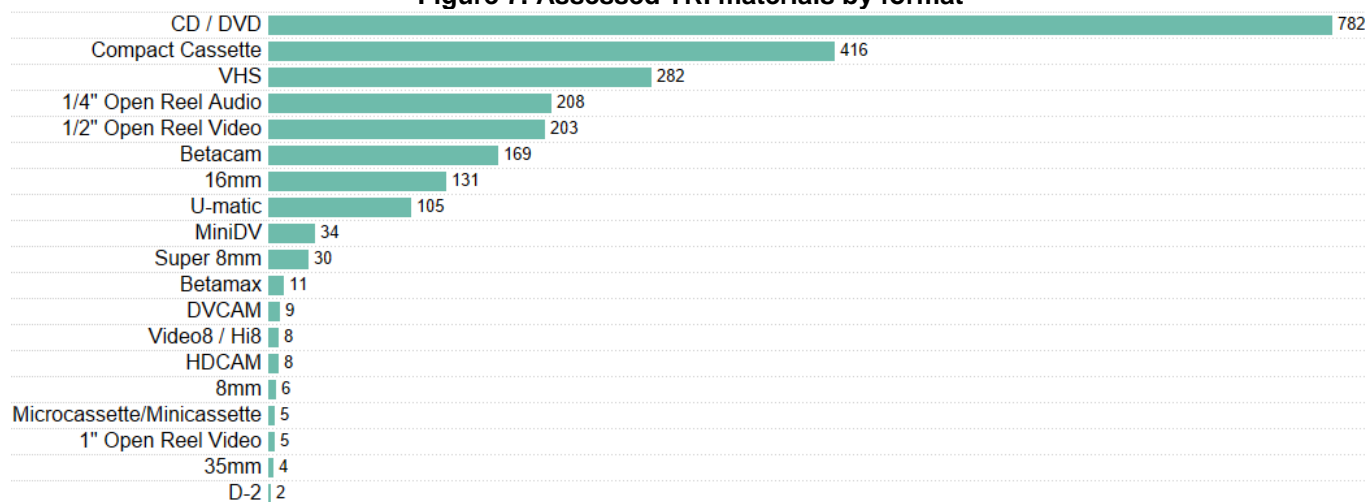
Format types include compact cassette, microcassette/mini-cassette, ¼" open reel audiotape (acetate and polyester), 35mm film (acetate), 16mm film (acetate, polyester, and unknown base), 8mm film, Super 8 film, U-matic videocassette, Betamax videocassette, VHS videocassette, Betacam

33. "Special Collections," The Ohio State University Libraries, accessed September 3, 2019, <https://library.osu.edu/special-collections>.



videocassette, Video8/Hi8 videocassette, D-2 videocassette, DVCAM videocassette, MiniDV videocassette, HDCAM videocassette, 1" open reel videotape, 1/2" open reel videotape, and CD/DVD (factory pressed and recordable).

**Figure 7. Assessed TRI materials by format**



Ten items from the Dance Notation Bureau Collection have been digitized. Four items were digitized prior to the assessment and have DVD copies in the collection and digital files stored on a local network drive. The majority of the analog audiovisual items in the Jarka Burian Collection have been digitized. The digital files are stored on CD/DVDs within the collection. Some of the digitized Burian content on CD/DVDs may have multiple copies. Titles written on some items are similar and playback of items would be required. Marcel Marceau American Collection contains generations of the same recordings.

Initially, the Thomas Skelton Collection (SPEC.TRI.TRS) was also chosen for assessment but was removed after the boxes were pulled and inspection started. At that time, it was discovered that the items are copies from the New York Public Library.

As previously noted, data tape was found during the assessment but wasn't included in assessment totals as it was out of the project scope.

## 8.4 Music & Dance Library

Created in 1946, the Music & Dance Library "supports the teaching, research, and performance areas of the School of Music and the Department of Dance".<sup>34</sup> Located on the second floor of the 18th Avenue Library, the Music & Dance Library is the only library unit in the audiovisual assessment that is not affiliated with University Libraries' Special Collections.

The assessment portion at the Music & Dance Library focused on materials from The Ohio State University School of Music, the library's main distinctive audiovisual collection. The collection contains student recitals, student ensembles, faculty and guest artist performances, and festivals and events held at Ohio State from 1965 to current day. The School of Music continues to transfer materials to the library.

34. "Music and Dance," The Ohio State University Libraries, October 11, 2012, <https://web.archive.org/web/20121011001931/http://library.osu.edu/find/collections/music-and-dance/>; "Support the Music & Dance Library," The Ohio State University Libraries, accessed October 1, 2019, <https://library.osu.edu/locations/md/giving>.

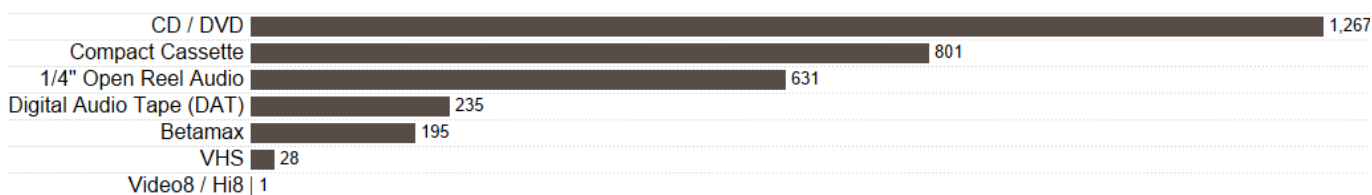


**Table 8. Number of assessed AV Items in MUS by series**

COLLECTION SERIES	NUMBER OF ITEMS
Student Ensembles	462
Student Recitals	2,289
Faculty and Guest Artists Performances	407

Organized into three groups, student ensembles, student recitals, and faculty and guest artist performances, the collection contains 3,158 individual items in various audiovisual formats. Within the organizational groups, items are physically organized by year with a separation section for oversized materials. Materials are individually cataloged though some materials may contain more than one item. For example, there may be two CDs, one that is part one of a recital and one that is part two. This is a rare occurrence with most materials being individually cataloged.

The assessment was completed by location within the stacks and checking the item with their catalog record. Formats include compact cassette, digital audio tape (DAT), ¼" open reel audiotape (acetate and polyester), CD/DVD (recordable), Betamax videocassette, VHS videocassette, and Video8/Hi8 videocassette.

**Figure 8. Assessed MUS materials by format**

Of the 1,267 CD/DVDs, 1,265 are born digital recordings, not second-generation recordings. Most of the CD/DVDs do not have additional copies. Additional School of Music items can be found at University Archives. One of the School of Music recordings at University Archives has been digitized.

The Music & Dance Library is currently working with the School of Music to no longer receive optical media copies of new recordings and instead have recordings go into a library institutional repository.

All of the Betamax videocassettes are likely pulse code modulation (PCM) F1 audio. Ninety-five percent of catalog records for Betamax videocassettes in the collection contain a note field with "Beta (audio)". PCM F1 is an adaptor that allows digital audio to be recorded on specific analog video formats.<sup>35</sup> A Betamax tape from University Archive's School of Music studio recordings (RG.31.D.7) was digitized as a patron request in 2019. Upon digitization, it was discovered that the recording wasn't analog video but digital audio. This was important to note as digitized/transferred audio files are smaller than video files. If all of the presumed 188 Betamax PCM F1 audio tapes were transferred to an accessible format, they would require less storage space.

## 8.5 Ohio Congressional Archives

Established in 2004 as a partnership between University Libraries and the John Glenn College of Public Affairs. The Ohio Congressional Archives "compiles, preserves, and makes accessible the unique historical materials documenting the immediate and long-term impact of Ohio members of the U.S.

35. Brylawski et al., eds., *ARSC Guide to Audio Preservation*, 7.; "PCM F1 Audio without Adaptor," AV Artifact Atlas, accessed November 20, 2019, [https://bavc.github.io/avaa/artifacts/pcm\\_f1\\_Audio\\_without\\_adaptor.html](https://bavc.github.io/avaa/artifacts/pcm_f1_Audio_without_adaptor.html).



Congress".<sup>36</sup> Located at the Book Depository, the unit is a part of University Libraries' Special Collections.

Assessed collections include John Glenn Archives (SPEC.RG.57.A), Deborah Pryce Papers (SPEC.RG.57.D), Ralph S. Regula Papers (SPEC.RG.57.C), and Chalmers P. Wylie Papers (SPEC.RG.57.G).

**Table 9. Number of AV items in each assessed OCA collection**

NAME OF COLLECTION	NUMBER OF ITEMS
John Glenn Archives (SPEC.RG.57.A)	496
Deborah Pryce Papers (SPEC.RG.57.D)	189
Ralph S. Regula Papers (SPEC.RG.57.C)	22
Chalmers P. Wylie Papers (SPEC.RG.57.G)	89

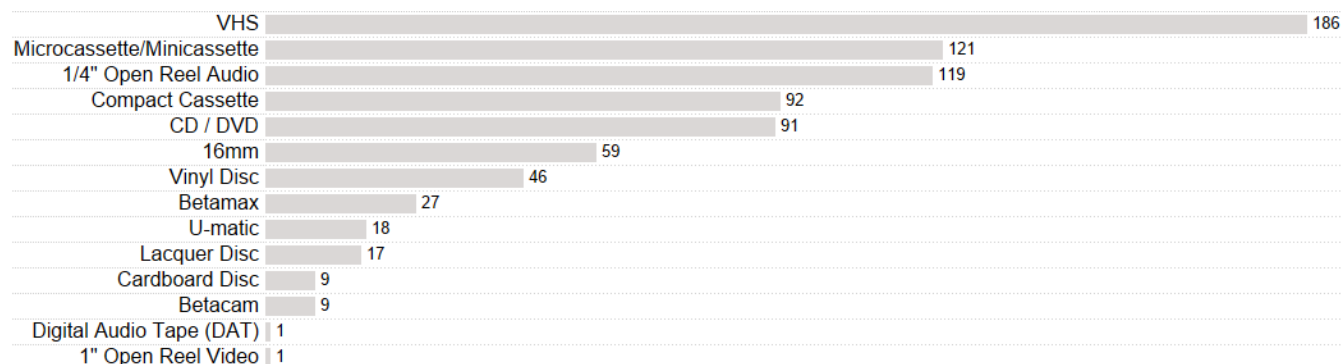
At the time of the assessment, all collections were processed in their entirety. Collections information is located in finding aids. The assessment was completed by identifying audiovisual materials in finding aids and pulling materials so they could be individually evaluated. Of the four collections, 796 items in various audiovisual formats were assessed.

The John Glenn Archives was not assessed in its entirety. Select boxes from the videotape and audiotapes series were assessed instead of both series in their entireties. Individual boxes were chosen by identifying boxes from various subseries (Senate, NASA, etc.) with the greatest variety of audio and videotape formats. As both series contain detailed item level information and the items were in good condition, the decision was made to assess a sample of the boxes. Seven boxes were assessed instead of 30. The John Glenn Archives is one of two collections where only select boxes containing AV materials were assessed.

The collections include local and national news footage, including recordings from CSPAN, speeches, interviews, home movies, songs, NASA and United States Air Force related material, campaign radio spots, parades, public service announcements, and press conferences.

Format types include compact cassette, microcassette, DAT, ¼" open reel audiotape (acetate, polyester and unknown base), 16mm film (acetate, polyester and unknown base), CD/DVD (factory-pressed and recordable), vinyl audio disc, lacquer audio disc, cardboard audio disc, U-matic videocassette, Betamax videocassette, VHS videocassette, Betacam videocassette, and 1" open reel videotape.

**Figure 9. Assessed OCA materials by format**



36. "About OCA," The Ohio State University Libraries, accessed September 3, 2019, <https://library.osu.edu/oca/about>.



A portion of audiovisual materials in the John Glenn Archives have been digitized. The digital files are stored in Knowledge Bank, on local network drives, and on CD/DVDs and hard drives in the collection. Additional recordings of and related to John Glenn can be found at University Archives.<sup>37</sup>

Recordings from United States military and government organizations may have already been digitized by other cultural heritage institutions.

## 8.6 Rare Books and Manuscripts Library

The Rare Books and Manuscripts Library collects and provides access to “primary-source materials and related published works from the medieval period to modern literature and the arts”.<sup>38</sup> Located at Thompson Library, the unit is a part of University Libraries Special Collections.

Assessed collections include Joanne Grant Films (SPEC.RARE.0028), Jessica Mitford Papers (SPEC.RARE.CMS.0089), Jessica Mitford Videotapes and Slides collection (SPEC.RARE.0034), Doris Walker Correspondence with Jessica Mitford and Research on Jessica Mitford (SPEC.RARE.CMS.0175), Nelson Algren Collection belonging to Amanda Algren (SPEC.RARE.CMS.0211), Warren Leming Papers on Nelson Algren (SPEC.RARE.0231), Bettina Drew Papers on Nelson Algren (SPEC.RARE.CMS.0147), and James Thurber Papers (SPEC.RARE.CMS.0004).

**Table 10. Number of AV items in each assessed RBML collection**

NAME OF COLLECTION	NUMBER OF ITEMS
Joanne Grant Films (SPEC.RARE.0028)	2,155
Jessica Mitford Papers (SPEC.RARE.CMS.0089)	528
Jessica Mitford Videotapes and Slides Collection (SPEC.RARE.0034)	15
Doris Walker Correspondence with Jessica Mitford and Research on Jessica Mitford (SPEC.RARE.CMS.0175)	3
Nelson Algren Collection Belonging to Amanda Algren (SPEC.RARE.CMS.0211)	1
Warren Leming Papers on Nelson Algren (SPEC.RARE.0231)	69
Bettina Drew Papers on Nelson Algren (SPEC.RARE.CMS.0147)	73
James Thurber Papers (SPEC.RARE.CMS.0004)	129

At the time of the assessment, collections were unprocessed, had inventories, or were processed in their entirety. Collections information was located in finding aids and catalog records. The assessment was completed by identifying audiovisual materials in catalog records, inventories and finding aids and pulling materials so they could be individually evaluated. Of the eight collections, 2,973 items in various audiovisual formats were assessed.

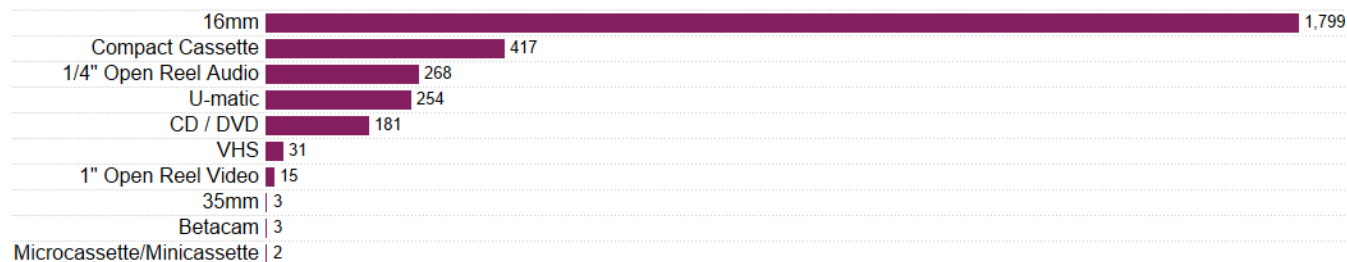
The collections include speeches, interviews, news footage, meetings, readings, radio and television programs, stock footage, and group discussions, and production elements. This includes materials from the documentary, *Fundi: The Story of Ella Baker*, the Student Nonviolent Coordinating Committee (SNCC), and the radio station WBAI.

37. The Ohio Congressional Archives and University Archives are separate special collections library units although they share the same space.

38. “Special Collections,” The Ohio State University Libraries, accessed September 3, 2019, <https://library.osu.edu/special-collections>.

Formats types include compact cassette, microcassette/mini-cassette, ¼" open reel audiotape (acetate and polyester), 35mm film (acetate and polyester), 16mm film (acetate, polyester, and unknown base), CD/DVD (factory-pressed and recordable), U-matic videocassette, VHS videocassette, Betacam videocassette, and 1" open reel videotape.

**Figure 10. Assessed RBML materials by format**



All of the films in Joanne Grant Films are housed in archival cans. James Thurber Papers contains multiple generations of recordings. Most of the videotapes in the Jessica Mitford Papers have been digitized, with the digital files being stored on optical media within the collection and on a secure SFTP server.

**Table 11. Example of multiple generations of a recording from the James Thurber Papers**

OHIO SESQUICENTENNIAL MEDAL ACCEPTANCE SPEECH [REEL 3]			
LOCATION	GENERATION	FORMAT	PRESERVATION ISSUE
Box 54, Item 1	Master	¼" open reel audiotape (acetate)	
Box 54, Item 2	Dub #1	¼" open reel audiotape (polyester)	Has sticky shed
Box 54, Item 3	Dub #2	¼" open reel audiotape (polyester)	Has sticky shed
Box 58, Item 1	Unknown generation	Compact cassette	
Box 58, Item 2	Unknown generation	Compact cassette	

Initially, the Raymond Carver Publishing Film (SPEC.RARE.0032) was also chosen for assessment but was removed after the box was pulled and inspection started. At that time, it was discovered that the item was not a moving image format.



## 8.7 The Ohio State University Archives

Established in 1965, University Archives serves as “the official memory of The Ohio State University”.<sup>39</sup> Located at the Book Depository, the unit is part of University Libraries’ Special Collections.

Assessed collections include Department of Photography and Cinema Records (RG.17.P), School of Music Studio Recordings (RG.31.D.7), University Communications, Office of Media and Public Relations Records (RG.11.B), and WOSU Public Media Records (RG.8.D).

**Table 12. Number of AV items in each assessed UA collection**

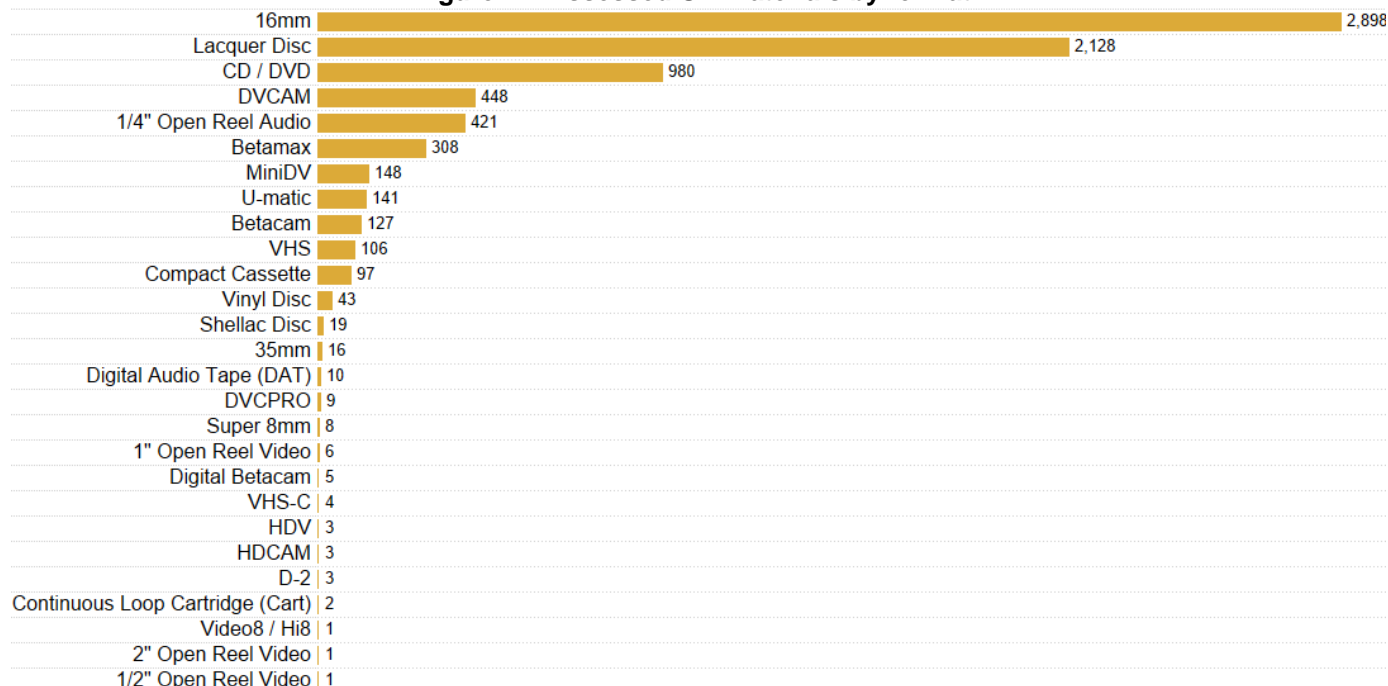
<b>NAME OF COLLECTION</b>	<b>NUMBER OF ITEMS</b>
Department of Photography and Cinema Records (RG.17.P)	3,268
School of Music Studio Recordings (RG.31.D.7)	337
University Communications, Office of Media and Public Relations Records (RG.11.B)	1,145
WOSU Public Media Records (RG.8.D)	3,186

At the time of the assessment, collections were currently being processed, unprocessed, or processed in their entirety. Collections information is located in finding aids and catalog records. The assessment was completed by identifying audiovisual materials in inventories and finding aids and pulling materials so they could be individually evaluated. Of the four collections, 7,936 items in various audiovisual formats were assessed.

The collections include football games and highlights, marching band performances, speeches, interviews, award ceremonies, memorials, commencement, board of trustees meetings, conferences, building dedications, panel discussions, dance performances, student music ensembles and recitals, and faculty and guest artist performances, educational programs, Ohio School of the Air programming, instructional medical and veterinary footage, agricultural extension produced materials, university produced materials, production elements, local and national news footage, local and national radio programming, and home movies.

Formats types include continuous loop cassette (cart), compact cassette, digital audiotape (DAT), ¼” open reel audiotape (acetate, polyester, and paper), 35mm film (acetate and polyester), 16mm film (acetate, polyester, and unknown base), Super 8, CD/DVD (factory-pressed and recordable), vinyl audio disc, lacquer audio disc, shellac audio disc, U-matic videocassette, Betamax videocassette, VHS videocassette, Betacam videocassette, Video8/Hi8 videocassette, D-2 videocassette, Digital Betacam videocassette, DVCAM videocassette, MiniDV videocassette, DVCPRO videocassette, HDCAM videocassette, HDV videocassette, VHS-C videocassette, 2” open reel videotape, 1” open reel videotape, and ½” open reel videotape.

39. “University Archives,” The Ohio State University Libraries, accessed September 3, 2019, <https://library.osu.edu/archives>.

**Figure 11. Assessed UA materials by format**

WOSU Public Media Records contains 24 lacquer audio discs with glass cores. The lacquer discs with glass cores are severely fragile as the glass becomes more brittle over time.<sup>40</sup> Approximately 80% of the lacquer discs in the collection are university events and local radio programming, including Ohio School of the Air K-12 educational broadcasts.

The Department of Photography and Cinema Recordings contains tinted films. More recordings from the School of Music are located in the Music & Dance Library. Dance recordings are also located at the Jerome Lawrence and Robert E. Lee Theatre Research Institute.

## 9. ASSESSMENT CHALLENGES

Most assessment challenges arose from attempting to apply the same assessment concepts to each library unit. As each unit was unique, concepts had to be adapted. As concepts were adapted for new units, it also affected units that were already completed. Collected data, controlled vocabularies, and definitions had to be updated as different types of AV formats and recordings were included in the assessment.

Also, catalog records and finding aids are important data sources for preservation assessments but they don't provide all of the necessary information. The amount and types of useful descriptions in finding aids varies from collection to collection as Describing Archives: A Content Standard (DACs) and More Product, Less Process (MPLP) don't always apply well to AV materials in archival collections.<sup>41</sup>

40. Brylawski et al., eds., *ARSC Guide to Audio Preservation*, 21.

41. For more information, see: Megan McShea, "Putting Archival AV Media into Context: An Archival Approach to Processing Mixed-Media Manuscript Collections," *Journal of the International Association of Sound and Audiovisual Archives*, no. 44 (January 2015): 92–104; Joshua Ranger, "What's Your Product? Assessing the Suitability of a More Product, Less Process Methodology for Processing Audiovisual Collections" (New York: AudioVisual Preservation Solutions, 2012), <https://www.avpreserve.com/wp-content/uploads/2012/08/WhatsYourProduct.pdf>.



## 10. CONCLUSION: OUTCOMES & RECOMMENDATIONS

The OSUL audiovisual assessment, which focused on rare or unique audiovisual materials, took place from June 2017 to August 2019. Archivists and curators within each library unit identified collections or collecting areas for their significance or research value. Upon completion of the assessment, 18,389 audiovisual items in 32 distinct formats from 7 library units were individually assessed.

### 10.1 Assessment Outcomes

While the main result of the assessment is quantitative data, there are additional outcomes related to intellectual control.

#### Improved description and intellectual control of audiovisual items in assessed collections

- After finding aids and catalog records are updated with the new information collected in the assessment, audiovisual items will be easier for patrons to discover. This includes new layers of description through the expansion and amendment of current information. New and updated information can include format identification, estimated run times, identification of significant preservation issues, and the identification of generations of recordings and production elements.
- Updating archival descriptions takes time. Completion of this task is limited by the number of staff available and staff's other commitments.

#### Identification of collecting areas being dispersed across multiple library units

This includes new material and additional generations of identified recordings.

- New dance recordings and additional generations of recordings can be found at University Archives and the Theatre Research Institute. The audiovisual items at University Archives include recordings with no strong connection to Ohio State.
- Recordings of and related to Milton Caniff are not just in the Milton Caniff Papers at Billy Ireland Cartoon Library and Museum but also in collections at University Archives. Caniff attended the Ohio State University.
- There are recordings of and related to John Glenn in the John H. Glenn Archives at the Ohio Congressional Archives and University Archives.
- School of Music recordings were found at the Music & Dance Library and University Archives' School of Music Studio Recordings collection. This was not known during the planning period for the assessment. The Music & Dance Library was the first unit to be assessed and University Archives was the last. The list of University Archives collections to be assessed was not selected until over a year after the assessment at the Music & Dance Library had been completed.

### 10.2 Essential Steps for Minimal Stewardship

While digitization is essential for preservation and access of recordings, other steps can be made to extend the life of AV carriers. This creates additional time for materials to be digitized before they reach a point where materials cannot be accessed.



### **Rehouse AV items where the containers are significantly accelerating deterioration**

Films housed in rusty metal cans need to be rehoused, especially acetate or color films.<sup>42</sup> It is more cost effective to purchase archival film cans and cores in bulk directly from the manufacturer and not a few cans at a time from a preservation supplies website.

### **Maintaining proper orientation of AV items during the items' entire lifecycle**

As highlighted in section 4 of this document, videotapes, optical media, phonographic records, and audiotapes should be stored vertically and film should be stored horizontally.<sup>43</sup> While best practices for orientation would traditionally be completed during processing, it also has to be maintained after processing is completed. Staff that pull items and boxes now and, in the future, may not be familiar with physical orientation best practices for AV materials.

### **Stabilization of lacquer discs affected by palmitic acid if digitization is on hold**

If the rare or unique lacquer discs with palmitic acid deposits are not prioritized for digitization, the discs should be stabilized through conservation measures. It will take conservation staff time and resources to stabilize the discs, so a decision has to be made. According to the International Association of Sound and Audiovisual Archives, lacquer discs are the highest priority for digitization among all AV formats.<sup>44</sup>

## **10.3 Recommendations**

Many of the outlined recommendations below are also described in the recommendation sections of previously completed audiovisual surveys by Indiana University, University of Illinois at Urbana-Champaign, Cornell University, and the Smithsonian Institution. The recommendations rely heavily on having full-time staff whose primary responsibility is AV preservation.

### **Collaborate with other institutions**

Collaboration is a part of University Libraries' strategic initiatives, specifically one of Engaging for Broader Impact's focus areas, Campus and External partnerships.<sup>45</sup> Collaboration could include peer Big Ten institutions, or location-based peers within the state of Ohio or larger Midwestern region. This could include investing in equipment and infrastructure for audiovisual formats that are common for multiple institutions in Ohio.

Copies of OSU athletic game recordings may also exist at the archive of the university that was played.

### **Implement inhouse digitization of AV formats commonly found in University Libraries into the Preservation & Reformatting unit.**

Common formats in assessed collections include CD/DVDs, compact cassettes, VHS videocassettes, 1/4" open reel audiotape, and U-matic videocassettes. Film and lacquer audio discs are also common formats but require additional specialized work and attention. It is cost effective to obtain playback equipment for

42. See Physical Arrangement, Storage, & Environment section for information on what collections contain rusty film cans.

43. Cocciolo, *Moving Image and Sound Collections for Archivists*, 26.

44. IASA Technical Committee, "The Safeguarding of the Audiovisual Heritage: Ethics, Principles and Preservation Strategy", Co-Edited by Will Prentice and Lars Gaustad, Version 4 (International Association of Sound and Audiovisual Archives, 2017), 18: <https://www.iasa-web.org/tc03/ethics-principles-preservation-strategy>.

45. "Strategic Directions," The Ohio State University Libraries.



audiovisual formats common to OSUL. Less common formats and formats that require additional specialized work and attention would be outsourced for digitization.

### **Invest in grant opportunities**

Grants should be pursued but only in an ethical manner. The Institute of Museum and Library Services (IMLS) funded project report “Collective Responsibility: Seeking Equity for Contingent Labor in Libraries, Archives, and Museums” outlines the issues with grant funded term positions that focus on digital cultural heritage work. The definition of “digital” for the project was broad and many of the project’s conclusions and major themes are related to audiovisual preservation that involves a digital component.<sup>46</sup> One conclusion involves institutional commitment, “When grants end, the accomplished work can lie dormant without anyone to promote it.... If a grant-funded project does not end when term workers depart – as usually happens – immense technical debt and a loss of institutional memory are just one more staff turnover away.”<sup>47</sup>

While it’s important to digitize materials or transfer them to an accessible format, it’s essential to look at every aspect of a project. A project doesn’t end after digital files and the original items come back from a vendor; projects require continual maintenance.<sup>48</sup> Finding aids, catalog records, and descriptive metadata need updating, files need to go into an institutional repository that can manage the large files, and digital preservation of the objects and technical metadata are needed so recordings are accessible in the future.

Possible grants include ARSC Program for the Preservation of Classical Music Historical Recordings, CLIR’s Recordings at Risk grant, Ohio History Fund Programs and Collections Grants, National Recording Preservation Grant, National Film Preservation Foundation (NFPF) Basic Preservation Grant, NFPF Matching Grant, and NFPF Avant-Garde Masters Grant.

Staff time would have to be used to identify what audiovisual items in library collections match the requirements for the various grants and what collections should be prioritized. University Libraries has been awarded NFPF grants for films in unassessed collections in the past.

### **Reevaluate the AV appraisal and reappraisal process**

The scope of this report is limited to summarizing the assessment findings. At this time, OSUL does not have an audiovisual preservation plan. The 2011 report, “Ethical Principles for Sound and Audiovisual Archives”, from the International Association of Sound and Audiovisual Archives, outlines issues that inhibit effective stewardship of audiovisual materials.

Long-term preservation of sound and audiovisual documents needs particular skills and infrastructure. It generates continuously high costs. Therefore, before accepting sound and audiovisual documents for long-term preservation an institution should verify if its mission permits it to do so and if there are sufficient trained personnel, adapted infrastructure and financial means in the long term budget. If this is not the case, the documents should be handed over to a better adapted institution.<sup>49</sup>

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46. Sandy Rodriguez et al., “Collective Responsibility: Seeking Equity for Contingent Labor in Libraries, Archives, and Museums,” 2019, 8, [http://laborforum.diglib.org/wp-content/uploads/sites/26/2019/09/Collective\\_Responsibility\\_White\\_Paper.pdf](http://laborforum.diglib.org/wp-content/uploads/sites/26/2019/09/Collective_Responsibility_White_Paper.pdf).

47. Ibid., 19-20.

48. Ibid., 20, 23.

49. “Ethical Principles for Sound and Audiovisual Archives,” IASA Special Publication (International Association of Sound and Audiovisual Archives, 2011), <https://www.iasa-web.org/ethical/22-processing-and-preservation>.



With OSUL's rare or unique audiovisual materials, the entire appraisal process needs to be reevaluated. The Society of American Archivists' "Core Values for Archivists" statement reiterates portions of IASA's "Ethical Principles for Sound and Audiovisual Archives", by identifying selection and responsible custody as core archival values.<sup>50</sup>

**Transfer recordings on CDs and DVDs to OSUL's preservation and access repositories, Digital Collections or Knowledge Bank, as appropriate**

As previously mentioned, CDs and DVDs are not a preservation format. 3,434 CD/DVDs were identified during the assessment. The majority of the items are unique and not duplicates.

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50. "SAA Core Values Statement and Code of Ethics," Society of American Archivists, May 2011, <https://www2.archivists.org/statements/saa-core-values-statement-and-code-of-ethics>.





## Bibliography

- “About Hilandar Research Library.” The Ohio State University Libraries. Accessed September 3, 2019. <https://library.osu.edu/hrl/about>.
- “About BICLM.” The Ohio State University Libraries. Accessed September 3, 2019. <https://library.osu.edu/biclm/about>.
- “About the PSAP.” Preservation Self-Assessment Program. Accessed September 3, 2019. <https://psap.library.illinois.edu/about>.
- “About OCA.” The Ohio State University Libraries. Accessed September 3, 2019. <https://library.osu.edu/oca/about>.
- AV Artifact Atlas. “PCM F1 Audio without Adaptor.” Accessed November 20, 2019. [https://bavc.github.io/avaa/artifacts/pcm\\_f1\\_Audio\\_without\\_adaptor.html](https://bavc.github.io/avaa/artifacts/pcm_f1_Audio_without_adaptor.html).
- Bradley, Kevin. “Risks Associated with the Use of Recordable CDs and DVDs as Reliable Storage Media in Archival Collections: Strategies and Alternatives.” Memory of the World Programme, Sub-Committee on Technology. Paris: UNESCO, October 2006. <https://unesdoc.unesco.org/ark:/48223/pf0000147782>.
- Brylawski, Samuel, Maya Lerman, Robin Pike, and Kathlin Smith, eds. *ARSC Guide to Audio Preservation*. CLIR Publication 164. Washington, DC: Council on Library and Information Resources, 2015. <https://clir.wordpress.clir.org/wp-content/uploads/sites/6/pub164.pdf>.
- Cocciolo, Anthony. *Moving Image and Sound Collections for Archivists*. Chicago: The Society of American Archivists, 2017.
- “Ethical Principles for Sound and Audiovisual Archives.” IASA Special Publication. International Association of Sound and Audiovisual Archives, 2011. <https://www.iasa-web.org/ethical/22-processing-and-preservation->.
- Preservation Self-Assessment Program. “First Generation / Master / Original Items.” Accessed October 20, 2019. <https://psap.library.illinois.edu/advanced-help/av-opticalmedia#uniquecontent>.
- IASA Technical Committee. “The Safeguarding of the Audiovisual Heritage: Ethics, Principles and Preservation Strategy.” International Association of Sound and Audiovisual Archives, Co-Edited by Will Prentice and Lars Gaustad. Version 4, 2017. <https://www.iasa-web.org/tc03/ethics-principles-preservation-strategy>.
- “Music and Dance.” The Ohio State University Libraries, October 11, 2012. <https://web.archive.org/web/20121011001931/http://library.osu.edu/find/collections/music-and-dance/>.
- Matejic, Predrag. “Hilandar Research Library & Resource Center for Medieval Slavic Studies at The Ohio State University.” *Cyrillic Manuscript Heritage*. 40 (August 2017): 8–12.
- National Film Preservation Foundation. *The Film Preservation Guide: The Basics for Archives, Libraries, and Museums*. 1st ed. San Francisco: National Film Preservation Foundation, 2004. <https://www.filmpreservation.org/userfiles/image/PDFs/fpg.pdf>.

- Ogden, Shereilyn. "2.1 Temperature, Relative Humidity, Light, and Air Quality: Basic Guidelines for Preservation." Northeast Document Conservation Center. Accessed October 20, 2019.  
<https://www.nedcc.org/free-resources/preservation-leaflets/2.-the-environment/2.1-temperature,-relative-humidity,-light,-and-air-quality-basic-guidelines-for-preservation>.
- Pearce-Moses, Richard. "Master Negative." In *A Glossary of Archival and Records Terminology*, 463. Archival Fundamentals Series II. Chicago: The Society of American Archivists, 2005.  
<http://files.archivists.org/pubs/free/SAA-Glossary-2005.pdf>.
- Rodriguez, Sandy, Ruth Tillman, Amy Wickner, Stacie Williams, and Emily Drabinski. "Collective Responsibility: Seeking Equity for Contingent Labor in Libraries, Archives, and Museums," 2019.  
[http://laborforum.diglib.org/wpcontent/uploads/sites/26/2019/09/Collective\\_Responsibility\\_White\\_Paper.pdf](http://laborforum.diglib.org/wpcontent/uploads/sites/26/2019/09/Collective_Responsibility_White_Paper.pdf).
- Society of American Archivists. "SAA Core Values Statement and Code of Ethics," May 2011.  
<https://www2.archivists.org/statements/saa-core-values-statement-and-code-of-ethics>.
- "Special Collections." The Ohio State University Libraries. Accessed September 3, 2019.  
<https://library.osu.edu/special-collections>.
- "Strategic Directions." The Ohio State University Libraries. Accessed September 3, 2019.  
<https://library.osu.edu/strategic-directions>.
- "Support the Music & Dance Library." The Ohio State University Libraries. Accessed October 1, 2019.  
<https://library.osu.edu/locations/md/giving>.
- "University Archives." The Ohio State University Libraries. Accessed September 3, 2019.  
<https://library.osu.edu/archives>.
- "Who Should Use PSAP?" Preservation Self-Assessment Program. Accessed September 3, 2019.  
<https://psap.library.illinois.edu/manual>.