Mapping the Magnetic Media Landscape

A study of the state of magnetic media preservation in the United States.

Description

Bay Area Video Coalition (BAVC Media) has received generous support from the National Endowment for the Humanities (NEH) to develop and deliver a national survey on the state of audiovisual preservation, with a focus on magnetic media formats (see CA Revealed's format guide for more information). The purpose of the survey is to develop a comprehensive analysis of the field's practices and challenges, and better understand the field's demographics. The resulting data will be used to develop audiovisual preservation training and support, help organizations to direct fundraising strategies, and to better understand gaps between different kinds of organizations engaging in audiovisual preservation.

Thank you for taking the time to support this project! Your answers are vital to the success of the survey. Results of the survey will be made public in a final report. We plan to use the information collected from this survey to create generalizable findings to inform future training and identify major needs in our communities. These resources will allow individuals to identify where they are located within the field, and will provide recommendations for self-advocacy within the field, their community, and organization (if applicable).

How to Take the Survey

This survey is not a test. There are no right or wrong answers. Please answer as honestly as you can so that we can develop accurate data on the strengths and challenges we face together in preserving complex audiovisual materials. It is ok to answer a question with "I don't know", or to estimate answers to the best of your ability. All reported results will be anonymous, except for the name of your organization and its geographic location. Plan to spend about thirty minutes to an hour completing the entire survey. We encourage the survey to be taken with the input of multiple people in your organization where applicable– collaboration is encouraged. You can download a PDF of the survey questions [bavc.org page will go here] to share with collaborators and prepare your answers.

We are here to support you through the process. If you have questions, please email Kelli Hix, BAVC Media's Co-Director of Audiovisual Preservation kellishay@gmail.com – we are happy to assist you.

Estimating Collection Counts

The survey asks you to estimate the number of items and formats in your organization's collection. Most organizations do not have an exact count of the materials in their collection. If you do not have an item level count of every audiovisual asset, do your best to estimate. For example, if you have twenty boxes of VHS tapes, you may choose to develop an estimated number of tapes per box by opening a sample of five boxes and using that to estimate the collection count. If you find that you are spending more time counting items than you are completing the survey, that is a sign that you can estimate more broadly. Create the best estimate that you can with the information you have. If you have a question about how to estimate your collection count, don't hesitate to reach out to us.

1. About You

1. (1a) What is your name?
   First Name:
   Last Name:
   Email:

2. (1b) What is your title?

3. (1c) What type of training in audiovisual archiving do you have?
   a. On-the-job training and experience in audiovisual archiving, in an archival setting
   b. On-the-job training and experience in audiovisual production or a non archival setting (for example, film and television production or equipment repair)
   c. Training through workshops or continuing education programs
   d. Masters degree in library or information science not specific to audiovisual archiving
   e. Post graduate training in audiovisual archiving
   f. Other (please describe)

4. (1d) [If you responded "post graduate training in audiovisual archiving"] What post graduate program did you attend?

5. (1e) How many years of experience do you have working in audiovisual archiving?

6. (1f) What is your employment status?
   a. Full-time salaried
   b. Full-time contract (term)
   c. Part-time salaried
   d. Part-time contract (term)
   e. Volunteer [If checked, skip Q8]
   f. Other

7. (1g) What is your current salary?
   a. Less than $15,000
   b. $15,000 - $24,999

      c. $25,000 - $49,999

      d. $50,000 - $74,999

      e. $75,000 - $99,999

      f. $100,000 - $149,999

      g. $150,000 - $199,999

      h. $200,000 and over

8. (1h) What year were you born?
   a. Numeric response

9. (1i) What is your gender identity?
   a. Choose as many as you like
   b. Agender
   c. Cisgender
   d. Female
   e. Genderqueer
   f. Genderfluid
   g. Male
   h. Non-binary
   i. Third gender
   j. Transgender
   k. Two-spirit
   l. Other

10. (1j) What is your race and/or ethnicity?
    a. Choose as many as you like
    b. Asian American
    c. African American/ Black
    d. Latinx / Hispanic
    e. Middle Eastern or North African (MENA)
    f. Native American or Alaska Native
    g. Native Hawaiian or Other Pacific Islander
    h. White
    i. Other

11. (1k) Do you identify as a person with a disability?
    a. Yes
    b. No

c. Prefer not to say

12. (1l) Do you identify as a member of the 2SLGBTQIA+ community?
    a. Yes
    b. No
    c. Prefer not to say

2: Your Organization and Staffing

13. (2a) What is your organization's name?

14. (2b) What year was your organization founded?

15. (2c) Is your organization
    a. For-profit
    b. Not-for-profit
    c. Government
    d. Other

16. (2d) Which of the following best describes your organization
    a. Archive
    b. Library
    c. Museum
    d. Arts/ Culture Organization
    e. Educational Institution
    f. Government Institution
    g. Community Organization
    h. Historical Society
    i. Religious Organization
    j. Private Collection
    k. Other

17. (2e) Please estimate your organization's annual operating budget.
    a. Why do we ask this? We are using budget figures as one factor in determining organizational size.

18. (2f) Please estimate the annual operating budget of the department that cares for the av collection, if different

19. (2g) Does your organization have a budget line item dedicated to preservation-level digitization of the audiovisual collection.
    a. Yes
    b. no
    c. Other (describe)

20. (2h) What state or territory is your organization in?

a. Alabama
b. Alaska
c. Arizona
d. Arkansas
e. American Samoa
f. California
g. Colorado
h. Connecticut
i. Delaware
j. District of Columbia
k. Florida
l. Georgia
m. Guam
n. Hawaii
o. Idaho
p. Illinois
q. Indiana
r. Iowa
s. Kansas
t. Kentucky
u. Louisiana
v. Maine
w. Maryland
x. Massachusetts
y. Michigan
z. Minnesota
aa. Mississippi
bb. Missouri
cc. Montana
dd. Nebraska
ee. Nevada
ff. New Hampshire
gg. New Jersey
hh. New Mexico
ii. New York
jj. North Carolina
kk. North Dakota
ll. Northern Mariana Islands
mm. Ohio
nn. Oklahoma
oo. Oregon
pp. Pennsylvania
qq. Puerto Rico
rr. Rhode Island
ss. South Carolina
tt. South Dakota
uu. Tennessee
vv. Texas
ww. Trust Territories
xx. Utah
yy. Vermont
zz. Virginia
aaa. Virgin Islands
bbb. Washington
ccc. West Virginia
ddd. Wisconsin
eee. Wyoming

21. (2i) What percentage of your organization's budget is funded by the following sources?
    a. Government Grants
    b. Non-Government Grants
    c. Endowment
    d. For profit activities
    e. Government funding (for example, a state or local archive)
    f. Other

22. (2j) How many full time staff does your organization have (this helps us determine organizational size)?

23. (2k) How many staff are responsible for the audiovisual collection as their primary duty?
    a.

	0	1	2	3	4	5+
Full-time staff						
Part-time staff						
Contracted staff						
Volunteers						
Student assistants						
Interns						

24. (2l) What type of training in audiovisual archiving does your staff have?
    a. On-the-job training and experience in audiovisual archiving, in an archival setting
    b. On-the-job training and experience in audiovisual production or a non archival setting (for example, film and television production or equipment repair)
    c. Training through workshops or continuing education programs
    d. Masters degree in library or information science not specific to audiovisual archiving
    e. Post graduate training in audiovisual archiving
    f. Other (please describe)

25. (2m) [If response to Q29 was postgraduate training] If your staff has post graduate training in audiovisual archiving, what post graduate training program(s) did your staff attend?

26. (2n) Please rank what training you believe would most benefit you and your colleagues:
    Drag and drop to rank options
    a. Identification and assessment of analog audiovisual collections
    b. Digitizing analog audiovisual collections
    c. Maintaining and storing digital files
    d. Disaster planning and remediation for analog audiovisual materials
    e. Providing access to digitized collections

3: Your Archival Collection

27. (3a) Approximately how many analog audiovisual items are in your collection?
    a. Please report the cumulative amount of film, video, and audio

28. (3b) Of these, approximately how many are magnetic media?
    a. *Do not include film, optical discs, grooved discs, or wire recordings. For more information see: https://californiarevealed.org/sites/default/files/2021-07/2018AudiovisualFormats.pdf*

29. (3c) Approximately how many digital audiovisual files are in your collection.
    a. *Include born digital materials and digital copies of analog materials.*

30. (3d) What audiovisual formats do you have?
    a. Video
    b. Film
    c. Audio
    d. Digital
    e. I don't know
    f. Other

31. (3e) Does your audiovisual collection contain unique content (content that doesn't exist anywhere else)?
    a. Yes
    b. No
    c. I don't know

32. (3f) Does your collection contain culturally valuable content as defined by your organization's mission statement?
    a. Yes
    b. No
    c. I don't know

33. (3g) Does your audiovisual collection contain material that you do **not** plan to digitize or make publicly available?
    a. Yes
    b. No
    c. I don't know

34. (3h) [If yes], What percentage of your audiovisual collection do you expect to not preserve? (estimate to the best of your ability)

35. (3i) [If yes], what's the reasoning behind not digitizing material?
    a. The material is commercially produced and already available by other means.
    b. The material has been digitized by another organization

     c. The material does not fit our mission statement
     d. Other (please explain)

36. (3j) At your current rate of preservation, how confident are you that your organization can digitize all of your priority magnetic media collections in the next ten years?
     a.

1	2	3	4	5	6

     b. *Not Confident At All*   *Extremely Confident*

37. (3k) What are the main barriers to digitizing the magnetic media collection? *Choose as many as you like*
     a. Lack of training in handling and managing audiovisual collection
     b. Lack of training in preservation methods and standards
     c. Lack of funds
     d. Lack of staff time to dedicate to digitization
     e. Lack of advocacy
     f. Audiovisual materials not a priority
     g. Lack of equipment
     h. Equipment in disrepair
     i. Geographic isolation
     j. Not sure how to digitize / lack of technical expertise
     k. Lack of digital storage (servers, external hard drives, cloud space)
     l. Other (describe)

38. (3l) [If more than 0], what's the reasoning behind not digitizing material?
     a. The material is commercially produced and already available by other means.
     b. The material has been digitized by another organization
     c. The material does not fit our mission statement

39. (3m) What category best describes your audiovisual collection? Check all that apply.
     a. Regional
     b. Institutional records (including government records)
     c. Recordings produced by your organization to document events (lectures, performances, etc.)
     d. Cultural documentation (language, traditions, etc.)
     e. Feature films and shorts
     f. Educational films
     g. Television
     h. News
     i. Scientific / research material
     j. Other (describe)

40. (3n) Are you still collecting analog av assets?

a. Yes
b. No
c. I don't know

4: Community

41. (4a) Does your collection contain material *by or about* historically marginalized communities?
    a. Yes
    b. No
    c. I don't know

42. (4b) [If yes,] Which communities?
    a. List

43. (4c) Does your organization *primarily* serve historically marginalized communities or collections by or about historically marginalized
    a. Yes
    b. No
    c. I don't know
    d. Other

44. (4d) Does your collection contain any of the following?
    a. Visual representations of traditions or ceremonies with access restrictions
    b. Home movies or other documentation that may elicit privacy concerns
    c. Content that may be considered culturally insensitive
    d. Recordings of individuals for which there are not documented permissions
    e. Recordings with questionable copyright / intellectual property
    f. Recordings with graphic material
    g. I don't know
    h. Other (describe)

45. (4e) Are staff members trained in stewarding and describing culturally sensitive materials? (For example:"Protocols for Native American Archival Materials")
    a. Yes
    b. No
    c. I don't know

5: Threats to Your Magnetic Media Collection

46. (5a) Which of the following would you describe as significant threats to the magnetic media collection currently?

    a. Mold

     b. Sticky shed syndrome
     c. Other decay
     d. Poor storage conditions
     e. I don't know
     f. There are **no** significant threats
     g. Other

47. (5b) In the last year, have any of the following significantly restricted your ability to preserve items in the magnetic media collection? Choose as many as you like
     a. Cannot find the physical item
     b. Cannot play a tape back due to decay or damage of the tape
     c. Do not have the playback deck for the format
     d. Do not have a local archival vendor for digitization
     e. Do not want to ship items to a vendor
     f. Cannot find the digital preservation file
     g. Cannot open the preservation digital file
     h. Other

6: Intellectual Control

48. (6a) Do you have an item level inventory of your magnetic media collection?*(This survey defines "item level" as one record entry per audiovisual asset or audiovisual work)* ?
     a. Yes, all items are inventoried at item level
     b. Yes, but it is partially complete
     c. No, we do not describe magnetic media collections at item level (but we have some records describing the collection)
     d. No, we do not have an inventory of the magnetic media collection
     e. I don't know
     f. Other (describe)

49. (6b) What system/s do you currently use to inventory or catalog your audiovisual collection?
     a. Spreadsheet
     b. Software
     c. Database (FileMaker, AirTable, etc.)
     d. Library catalog system
     e. Word processing document
     f. Paper records (handwritten or typed)
     g. Institutional memory or knowledge (an individual)
     h. Other
     i. I don't know
     j. None

50. (6c) Do you keep a consistent written record of what magnetic media assets have been digitized?
    a. Yes
    b. No
    c. Partially
    d. I don't know
    e. Other

7: Digitization

51. (7a) Does your organization have a preservation plan for your magnetic media collection? (A preservation plan can be any shared, written agreement about preserving the magnetic media collection)
    a. Yes
    b. No
    c. I don't know
    d. Other

52. (7b) [If yes or other] Is the plan in active use?
    a. Yes
    b. No
    c. I don't know
    d. Other

53. (7c) How does your organization determine which magnetic media collections to digitize?
    Drag and drop to rank options
    a. Uniqueness of content
    b. Materials' relevance to the organization's mission
    c. Adherence to grant requirements
    d. Public or community input
    e. Research demand
    f. Physical condition of the material
    g. There is no clear decision making methodology

54. (7d) Do you have an active in-house magnetic media digitization station set up at your organization?
    a. Yes
    b. No

55. (7e) Do you actively use a vendor to digitize your magnetic media collection?
    a. Yes
    b. No

56. (7f) [if yes] Approximately how far away from your organization is your closest vendor (in miles)?
    a. 0-25
    b. 26-100
    c. 101-500
    d. 501-1,000
    e. 1,000+
    f. I don't know

57. (7g) Approximately many magnetic media items did you digitize in the last year? (In house or with a vendor)

58. (7h) Approximately how many items in the collection do you think you will digitize in the next 5 years based on current rates of digitization?

8: Sustainability

59. (8a) What best describes your storage environment for your analog audiovisual collection?
    a. Stored at or very close to recommendations for mixed media range (35 - 55 degrees F / 30% - 50% RH)
    b. Stored at room / office temperature
    c. Stored in an area with some controls but not at consistent room / office levels
    d. Stored in an area without temperature or humidity controls
    e. Other (describe)

60. (8b) Do you have a written policy for storing digital preservation files?
    a. Yes
    b. No
    c. We do not have digital preservation files

61. (8c) How many copies do you have of each audiovisual preservation file?
    a. One copy only
    b. Two copies
    c. Three copies
    d. More than three copies
    e. We do not have digital preservation files

62. (8d) What storage methods do you use to store your digital preservation files? (choose all that apply)?
    a. Server
    b. RAID array
    c. External hard drives
    d. Computer hard drive

e. Thumb drives
f. Cloud service
g. LTO Tapes
h. Other

63. (8e) Do you have scheduled fixity or preservation maintenance checks on stored digitized content?
    a. Yes
    b. No
    c. I don't know
    d. Other (describe)

64. (8f) Do you have a written disaster plan that specifically addresses audiovisual collections?
    a. Yes
    b. No
    c. I don't know

65. (8g) Are you concerned about your ability to digitize all priority audiovisual items in your collection?

1	2	3	4	5	6

not concerned at all   *very concerned*

9: Thank you!

1. (9a) Do you have comments or thoughts to share with us?
2. (9b) If you know another organization who should be part of this survey, please let us know below
3. (9c) Your organization will receive an opportunity for free training in av preservation, and will receive a toolkit with the results of the survey. Please enter an email address below where we can send these:

Thank you so much for taking the time to fill out this survey

Appendix B: Survey Sample

Below is a list of participants who took part in our recent survey. BAVC Media is grateful for their time and input, which contributed greatly to the insights gathered. Each participant played a key role in helping us better understand the perspectives within our community.

1. ʻUluʻulu Moving Image Archive - University of Hawaiʻi West Oʻahu
2. Academy of Art University
3. African American Museum & Library at Oakland
4. Alaska and Polar Regions Collections & Archives
5. Aleutian Pribilof Islands Association
6. Allen County Public Library
7. American Alpine Club
8. American Heritage Center, University of Wyoming
9. American Song Archives / Woody Guthrie Center / Bob Dylan Center
10. Archivo Historico de Vieques
11. Audiovisual Heritage Center, Nashville Metro Archives
12. Bank Street College
13. Brigham Young University
14. Brown Media Archive & Peabody Awards Collection
15. CalArts (since 2012), curated Surveying First Decade (1996 for Video Data Bank) that involved significant restoration of early tapes,Hallwalls (in 1980-90s)
16. California Federation of Teachers
17. California State Archives
18. Capital Area District Libraries
19. Carnegie Mellon University
20. Carroll County Public Schools
21. Center for Sacramento History
22. Center for Western Studies (Augustana University)
23. Chickaloon Village Traditional Council
24. Choctaw Cultural Center
25. ChromaDiverse
26. Clark University Visual and Performing Arts Department
27. Community Media Center of Carroll County
28. Cornell University
29. Dallas VideoFest
30. Delaware Public Archives
31. DePaul University
32. Des Moines Historical Society
33. Deserted Films
34. Detroit Institute of Arts
35. Dolph Briscoe Center for American History, University of Texas at Austin
36. Duke University

37. ENTRE Film Center
38. GBH Archives and the American Archive of Public Broadcasting
39. Grand Rapids Public Library
40. GrassRoots Community Network
41. Harvestworks
42. Hip-Hop Education Center
43. History San Jose
44. Holly Township Library
45. Huhugam Heritage Center
46. Hula Preservation Society
47. St. Paul Neighborhood Network (SPNN), Minnesota Media Arts (MNMA) & Hennepin County Library Special Collections
48. Idaho State Historical Society
49. Indiana University Libraries Moving Image Archive
50. Invisible Histories
51. Jacob's Pillow
52. Kartemquin Films
53. LA Poverty Department
54. little People of America, Inc.
55. LO*OP Center, Inc.
56. Mark Morris Dance Group
57. Media Burn
58. Miami Dade College's Lynn and Louis Wolfson II Florida Moving Image Archives
59. Miami Valley Public Media/WYSO
60. Michigan State University Libraries (MSUL)
61. Mill Valley Public Library
62. Minnesota Historical Society
63. Minnesota Media Arts
64. Minnesota Public Radio / American Public Media
65. Montana Historical Society
66. Montana State University Library
67. Moving Image Research Collections @Univeristy of South Carolina
68. Nebraska Public Media
69. Nemours Estate
70. New Orleans Video Access Center
71. New York African Film Festival
72. New York Public Library
73. Northeast Historic Film
74. Northwestern University Libraries
75. NOVAC
76. Olive Branch Productions
77. Oregon Historical Society
78. Pavek Museum
79. Peabody Institute of the Johns Hopkins University

80. Pennsylvania State Archives
81. Providence College Archives and Special Collections
82. Pryor Center for Arkansas Oral and Visual History-University of Arkansas
83. Records Management Division - Office of the City Clerk
84. Robert S. Cox Special Collections and University Archives Research Center
85. San Francisco Public Library
86. Santa Barbara HIstorical Museum
87. Santa Barbara Mission Archive-Library
88. Seattle Municipal Archives
89. Seattle Municipal Archives (part of the City of Seattle Office of the City Clerk)
90. Skowhegan School of Painting & Sculpture
91. Smithsonian Institution
92. Society of Mary, US Province
93. Squeaky Wheel Film & Media Art Center
94. Stanford University Libraries
95. TAPE COLLECTIVE
96. Texas Archive of the Moving Image
97. Texas State University
98. The Bronx County Historical Society
99. The Museum of Flight
100. The Shevchenko Scientific Society of America
101. The Tennessee Archive of Moving Image and Sound
102. Third World Newsreel
103. UAA/APU Consortium Library Archives & Special Collections (University of Alaska Anchorage)
104. UCO Archives & Special Collections
105. Ukrainian Cultural Research Center
106. Ukrainian History and Education Center
107. Ukrainian Museum of Stamford
108. Ukrainian National Museum of Chicago
109. University Archives
110. University of California Santa Barbara Library Special Research Collections
111. University of California Santa Cruz, University Library, Special Collections & Archives
112. University of Delaware Library, Museums and Press
113. University of Notre Dame
114. Video Data Bank
115. Video Productions Inc.
116. Videoda
117. Visual Communications Media
118. Visual Studies Workshop
119. volunteer family and community projects, informal
120. Walker Art Center
121. Warren Historical & Genealogical Society
122. Washington University Libraries

123.   Wisconsin Center for Film and Theater Research
124.   WTTW/WFMT
125.   Wyandotte Nation Cultural Center & Museum
126.   Wyoming State Archives
127.   Yale University Library

A few respondent organization decided to respond without including their organization name

The following figures include some of the self-reported demographics for the lead survey respondent individuals and organization information of this sample. The sample does not entirely represent the field of magnetic media collection holders, and U.S-based audiovisual archivists, nor does it represent the breadth of organizations with magnetic media collections. To a limited extent, conclusions are drawn about the field using data collected from the sample represented below. A more accurate description of the demographic makeup of the audiovisual archiving professionals please reference the [AMIA Salary and Demographics Survey of the Field: Findings and Future Directions.](#)

Individual Respondent Sample:

Average Age of Respondent	50	
Median Years of Experience	10	
Current Salary Range	Number of	% of
Less than $15,000	6	5%
$15,000 - $24,999	7	6%
$25,000 - $49,999	22	19%
$50,000 - $74,999	47	41%
$75,000 - $99,999	24	21%
$100,000 - $149,999	9	8%
$150,000 - $199,999	1	1%
Employment Type	Number of	% of
Full-time salaried	89	68%
Part-time salaried	13	10%
Full-time contract (term)	2	2%

Part-time contract (term)	5	4%
Volunteer	11	8%
Other	11	8%
Gender Identity	Number of	% of
Female	72	58%
Male	44	35%
Non-binary	4	3%
Genderfluid	3	3%
Genderqueer	2	2%
Transgender	1	2%
Two-spirit	1	1%
Race & Ethnicity (multiple-select question)	Number of	% of
Asian, Asian-American	7	6%
African American, Black	4	3%
Latinx, Hispanic	7	6%
Native American or Alaska Native	5	4%
Native Hawaiian or Other Pacific Islander	1	1%
Middle Eastern or North African (MENA)	1	1%
White	106	86%
Other	7	6%
Disability Status	Number of	% of
Yes	16	13%
No	101	81%
Prefer not to say	8	6%
LGBTQIA+		
Yes	28	23%

No	87	71%
Prefer not to say	8	7%

Organizational Respondent Sample:

Median Age of Organization	57	
Org Type Breakdown	Number of	% of
Government	30	23%
For Profit	4	3%
Non Profit	101	77%
Other	12	9%
Median Departmental Budget	$67,500	
Median Organizational Budget	$725,000	

Appendix C: Mapping the Magnetic Media Landscape
Interview Protocol

Organization: [organization, state]
Date of Interview:
Interviewee: [name, title]
How long has the interviewee been at the organization?
Lead Interviewer(s):
Lead Note-taker / Time-keeper:
Organization typeOrganization size by budget
Department size by budget
Magnetic Media Collection size :
Organization or Department Website:

Organization or Department Mission Statement:

Post Interview Notes:

Introduction *(read the third and fourth paragraph to the interviewee at the head of the interview)*

BAVC Media's preservation team is conducting a two-year survey and research project, *Mapping the Magnetic Media Landscape*, to better understand the state of the audiovisual archiving field in the United States. The project develops a contemporary analysis of the field's practices, demographics, and challenges. The purpose of the analysis is to address barriers to audiovisual preservation through a collective response that supports focused training and advocacy and encourages collaboration.

The survey has 131 respondents from across the United States. As part of this project, we are conducting about 20 interviews from those respondents. Thank you for being an important part of this work.

This interview will expand on the information you provided in the survey. It is an opportunity to better understand the stories behind the data and to gain insight into the reasoning behind your organizational practices. Interviews will be used in the survey final report. The report will identify common threads from the interviews including common challenges and common solutions to preservation. It will also note unique stories and highlight the cultural value of audiovisual collections. Your organization might be cited by a quote as an illustrative example of the findings. If there's anything you'd like to share confidentially, let us know and we will take your comment off the record. We expect this interview to take about an hour. After the interview,

please do not hesitate to reach out with any follow-up questions or additional thoughts. We are thrilled to be talking to you today and look forward to hearing more about your work and experience.

Does that all sound okay to you? Do you have any questions about the interview?
Do we have permission to record this interview?

Notes for the Interviewer:
All interviews should address the core questions. Each question is followed by the purpose of the question and additional prompts. The prompts can be used to encourage the conversation as needed. Many questions also include survey data from the respondents' survey response. This data should be filled out by the interviewer before each interview and should be used to inform the question and tailor the question to the interviewee and their organization. Interviewer(s) should brief themselves and be familiar with the interviewee's full survey responses before each interview. Interviews should be conducted on the BAVC zoom account and recorded.

PART ONE: COLLECTIONS

1. **What is your path to being a caretaker of cultural heritage collections?**

Purpose of the question:
Better understand the background of av archivists and professional paths to the field.

Optional prompts and notes:
Did your educational background lead you to this work or another work experience did?
Did you face any barriers? What were they?
Why is this work important to you?

Survey notes:
What type of training in audiovisual archiving do you have?
What post graduate training program did you attend?
How many years of experience do you have working in audiovisual archiving?

2. **What magnetic media formats do you have in the collection?**

3. **Can you name an item or group of materials in your magnetic media collections that is most rare, unique, or culturally important?**
   AND / OR
   Do you have a moment of finding something in your collection that was believed to be lost or not exist? Tell us about that time.
   Is that item preserved or not preserved and at risk?

AND / OR
Are there other collections that you want to mention that are unique or particularly of interest?

Purpose of the question:
Choose one of the above questions based on the interviewee's past responses to gain new or further insight into the unique cultural value of their collection.

Optional prompts and notes:
What was that moment like?
How did it change how you view the collection?
What happened afterwards?

Survey notes:

4. **How are you seeing the collection condition deteriorate physically over time, if at all?**

Purpose of the question:
To better understand how caretakers are seeing evidence of magnetic media deterioration.

Optional prompts and notes:
Mold, decay, playback problems, sticky shed, etc.

Survey notes:
What category best describes your audiovisual collection?
Are you still collecting analog av assets?
Which of the following would you describe as significant threats to the magnetic media collection currently?

5. **If you are collecting more analog material, why? Are you actively looking for this material, or is it coming into the collection? Are you seeing a growth in born digital material?**

Purpose of the question:

Optional prompts and notes:

Survey notes:
Are you still collecting analog audiovisual material?

PART TWO: THE INTERVIEWEE

6. **What are the key staff working in the AV collections? List the staff position, their duties with the av collections, and a rough percentage of time spent working on the av collection.**

Staff position:
Full time / part time / volunteer:
Duties with the AV Collection:
Estimate percentage of time working in the av collection:

Staff position:
Full time / part time / volunteer:
Duties with the AV Collection:
Estimate percentage of time working in the av collection:

Staff position:
Full time / part time / volunteer:
Duties with the AV Collection:
Estimate percentage of time working in the av collection:

Staff position:
Full time / part time / volunteer:
Duties with the AV Collection:
Estimate percentage of time working in the av collection:

Purpose of the question:
Better understand the range of duties assigned to av collection caretakers.

Optional prompts and notes:
None

Survey notes:
how many full time staff does your org have working w/ the collection?

7. **Would more training in the care and handling of magnetic media collections benefit your ability to do your work? If so, please elaborate on your survey response regarding what kind of training and topics in av preservation would be most beneficial.**

Purpose of the question:
Better understand what training is needed in the field and where common gaps in training are.

Optional prompts and notes:
What training has worked well in the past?
Do you prefer online or in person training?

Survey notes:
What type of training in audiovisual archiving do you have?
What type of training in audiovisual archiving does your staff have?
Please rank what training you believe would most benefit you and your colleagues:

PART THREE: DIGITIZATION

8. **How does your organization fund digitization of its magnetic media collection?**

Purpose of the question:
Better understand where funding is coming from specifically for digitization. To understand if funding is consistent and proactive or project-based and responsive, or both.

Optional prompts and notes:
Do you fund preservation through grants, a budget line, private funding, etc.

Survey notes:
Does your organization have a budget line item dedicated to preservation-level digitization of the audiovisual collection?

9. **How does your organization decide what magnetic media items to digitize? If you have a preservation plan, what role does it play in this decision?**

Purpose of the question:
Better understand the methodology behind what is preserved and what is prioritized.
Better understand if preservation is reactive or proactive or both.

Optional prompts and notes:
Who makes the decisions? (for example, is it by patron request, or using a preservation plan?

Survey notes:
Does your organization have a preservation plan?
Is the plan in active use?

10. **What percentage of magnetic media items in your collection do you digitize in-house? What percentage with a vendor? Try to estimate to the best of your ability.**

Purpose of the question:
To better understand the rate of digitization in-house versus out of house.

Optional prompts and notes:
none

Survey notes:
Do you have an active in-house magnetic media digitization station set up at your organization?
Do you actively use a vendor to digitize your magnetic media collection?
Approximately how far away from your organization is your closest trusted vendor (in miles)?

11. How does your organization decide whether to use a vendor or to digitize in-house?

Purpose of the question:
To better understand the decision between using a vendor and performing preservation in-house.

Optional prompts and notes:

Survey notes:
Do you have an active in-house magnetic media digitization station set up at your organization?
Do you actively use a vendor to digitize your magnetic media collection?
Approximately how far away from your organization is your closest trusted vendor (in miles)?

12. If the organization uses a vendor: Do you create a contract or work order with your vendor?

Purpose of the question:
To better understand the vendor digitization workflow

Optional prompts and notes:
none

Survey notes:
Do you actively use a vendor to digitize your magnetic media collection?

13. If the organization uses a vendor: Do you perform quality control of files after the vendor creates them?

Purpose of the question:
To better understand the vendor digitization workflow

Optional prompts and notes:
none

Survey notes:

Do you actively use a vendor to digitize your magnetic media collection?

14. **We have a series of short questions about your digitization and playback equipment and process for magnetic media only. These questions refer to your in-house digitization only. Please answer the best that you are able.**

   a. **What playback equipment do you have?**
   b. **What formats can you digitize in-house?**
   c. **Why were those formats chosen?**
   d. **Do you perform quality control on files or material digitzed in-house?**
   e. **What is the workflow if an error is found during digitization?**
   f. **Is digitization monitored?**
   g. **Do you have equipment that is not being used? Why? (lack of staff, etc.)**
   h. **What would you change about your digitization set up and workflow if you could?**

Purpose of the question:
To better understand what equipment exists and where equipment gaps are. To better understand digitization workflows in-house.

Optional prompts and notes:
none

Survey notes:
Do you have an active in-house magnetic media digitization station set up at your organization?

15. **Tell us about the difference between how many items you digitized this year and how many you expect to digitize in the next five years. What accounts for the difference?**

Purpose of the question:
To better understand expected rates of digitization.
To better understand if organizations are digitizing more and why.
To better understand if advocacy in the case for magnetic media digitization is effective

Optional prompts and notes:
none

Survey notes:
Approximately many magnetic media items did you digitize in the last year?
Approximately how many items in the collection do you think you will digitize in the next 5 years based on current rates of digitization?

16. Are there any magnetic media collection items that are no longer playable or are lost forever due to inability to digitize them, due to decay, or something else?

Purpose of the question:
Better understand cultural impact of not preserving collections

Optional prompts and notes:
Do you think there is a risk of losing unique and important cultural heritage items from your magnetic media collection? What would mitigate that risk?

Survey notes:
Which of the following would you describe as significant threats to the magnetic media collection currently?

17. For organizations that do not have a digital storage plan: Why not?
For organizations that do: Tell us a little more about the plan and if it works.

Purpose of the question:
To better understand the need around long-term digital storage of audiovisual material.

Optional prompts and notes:

Survey notes:
How many digital audiovisual files are in your collection:
Do you have a written policy for storing digital files?:

18. How many items in the analog magnetic media collection have you preserved? How many are left to go?

Purpose of the question:
Determine if rates of digitization can meet preservation goals

Optional prompts and notes:
None

Survey notes:
none

<div align="center">PART FOUR: THE ORGANIZATION</div>

19. Is the magnetic media collection central to your organization's mission, i.e. included in its mission statement?

Purpose of the question:
To better understand the perceived importance of magnetic media collections within different organizations.

Optional prompts and notes:
none

Survey notes:
none

20. This short series of questions is about access.
    a. **Does your organization provide access to the content of the magnetic media collection?**
    b. **Does it provide streaming access online or onsite?**
    c. **Do you allow access to the original media for playback?**

Purpose of the question:
Better understand access and barriers to access

Optional prompts and notes:
none

Survey notes:
none

21. Do copyright concerns keep you from providing access to materials?

Purpose of the question:
Better understand barriers to access and the challenges around copyright.

Optional prompts and notes:
none

Survey notes:
none

22. Have you ever had anyone ask that material from the magnetic media collection have restricted access or be taken down?

Purpose of the question:
Better understand barriers to access and the challenges around copyright.

Optional prompts and notes:
none

Survey notes:
none

PART FIVE: COMMUNITY

23. **Can you tell us about a community member's reaction to seeing or hearing footage from the magnetic media collection?**
    i. For example, someone hearing the voice of a family member or friend that they haven't heard in a long time. What was that like? What made it special for them?

Purpose of the question:
Better understand the cultural impact of the collection through narrative.

Optional prompts and notes:
Are there any projects (films, research, etc.) that used the collection that stand out to you as being special?
Were projects ever limited because access to a collection was not possible or an item was too decayed to be used?
Do you feel you are a part of a larger community of organizations working toward common goals?

Survey notes:
Does your collection contain material by or about historically marginalized communities? If yes, which?

24. **How would you define the community that your organization serves? In other words, who uses the magnetic media collection and why?**

Purpose of the question:
Better understand the community being served

Optional prompts and notes:
Are there any projects (films, research, etc.) that used the collection that stand out to you as being special?
Were projects ever limited because access to a collection was not possible or an item was too decayed to be used?
Do you feel you are a part of a larger community of organizations working toward common goals?

Survey notes:
Does your collection contain material by or about historically marginalized communities? If yes, which?

Does your organization primarily serve historically marginalized communities or collections by or about historically marginalized communities?

PART SIX: CONCLUSION

25. What would advocacy look like for your collection?

Purpose of the question:
To better understand what kind of advocacy and support organizations need.

Optional prompts and notes:
Do you need internal advocacy or external or both? Institutional support, community support, concrete data on the lifespan of magnetic media and the risk for loss, etc.

Survey notes:
none

26. Is there anything else that you would like to tell us about?

Mapping the Magnetic Media Landscape
Site Visit Protocol

Organization Name:
Organization Address:
Organization Participant (name, title)
Organization Participant (name, title)
Organization Participant (name, title)
BAVC Representatives:
Date of Site visit:
Location of Site Visit:

PROJECT DESCRIPTION

Mapping the Magnetic Media Landscape is a two-year research and development project designed to construct a comprehensive analysis of magnetic media preservation in the United States. It is conducted by BAVC Media and funded by the National Endowment for the Humanities. Data for the analysis is collected in three iterative stages: 1) a nation-wide survey; 2) twenty-five in-depth interviews with selected survey participants; and 3) three site visits conducted with organizations of various sizes and resources in different geographic regions. The survey gathers quantitative data on collection size, organization size and structure, rate of digitization, staffing, and staff demographics in the field. The interviews gather narrative stories highlighting collection content, community engagement, preservation challenges and successes, advocacy work, and staff backgrounds. The site visits document digitization workflows to share how standards and best practices are interpreted and applied in different settings. Additional input from non-collecting organizations that address preservation training, build national networks, perform digitization, and facilitate creative programming and access initiatives will enhance the report findings. This data will be analyzed and crafted into a report that uses quantitative and qualitative data to describe the field's current challenges and most promising developments. The report offers a current snapshot of the field from a variety of perspectives.

SITE VISIT AGENDA

Site visits last an estimated four to six hours and consist of the following activities. A suggested schedule is below– however, each organization may tailor the schedule to their needs.

10:00 am - 10:30 am	**Arrival and greetings**
10:30 am - 11:00 am	**Tour collection space**
11:00 am - noon	**Tour office and work spaces**
Noon - 1:30 pm	**lunch**
1:30 pm - 2:30 pm	**Tour digitization spaces and document digitization workflows**
2:30 pm - 3:30 pm	**Create an equipment list**
3:30 pm - 4:30 pm	**Interview and discussion**

BAVC staff will structure the interview and discussion around a series of questions informed by the host site's survey response and first interview. The interview will document the site's digitization workflow, their challenges and needs, and their vision for the field. Site visit hosts are encouraged to prepare any talking points, notes they wish to include in the discussion, and questions for BAVC staff which are relevant to the survey and support a greater understanding of the field and their work. The activities above provide a structure for the site visit. However, site visits are participatory and interactive. They encourage dialogue and the exploration of spaces and conversation topics that develop during the participants' time together.

BAVC staff will take photos of spaces, people, and equipment during the site visit. Host sites are asked to sign a waiver allowing use of the photos and interview responses in a case study, included as part of the final report, which will be publically available online. Host site primary contacts will be provided with a copy of the case study before its publication for review and approval. If the host site wishes to keep any information private during the site visit, BAVC requests the host site contacts state this clearly during the visit whenever possible.

HOW TO PREPARE FOR THE SITE VISIT

Host sites receive an information packet before the site visit. The packet includes:

- **A PDF of the host organization's original survey responses**
- **A release form** for use of the interview and photos
- **A blank equipment list**
- **A copy of this site visit protocol document**

To prepare for the site visit, BAVC recommends the host organization complete the following tasks:

- **Review this site visit protocol document**
- **Review the PDF of your original survey answers**
- **Sign the release form**
- **Fill out the equipment list to the best of your ability.** BAVC staff can assist you with this onsite if needed.
- **Provide any written digitization workflow documentation t**hat may be helpful
- **Please note any talking points** that you would like to include in the interview that support a greater understanding of your work and the field.
- **Ensure that you have access to working and collection spaces** during the visits.
- **Ensure there is a quiet space to meet** and conduct a discussion with BAVC staff.

HOW THE SITE VISIT DATA WILL BE USED

The site visit data will be used to develop a case study of your magnetic media preservation practices and challenges. It will be included in the final report, along with other organizations' case studies. The site visit is not an evaluation of your work. We recognize that no two organizations conduct preservation in the same way and that best practices and standards are guidelines to be adapted. Your methodologies rpvide concrete examples, inspiration, and guidance to other cultural heritage organizations engaging in adjacent work.

The supporting goal of the site visit is to develop a deeper understanding of the host organization's values, experience, and insight into the future of the field. We welcome information you may like to share about your approach to technical challenges, promising programs and resources to keep an eye on, as well as inequities to be addressed in staffing, advocacy, and collection care.

We look forward to meeting you. Thank you for your time and for allowing us into your space.

Mapping the Magnetic Media Landscape
Site Visit Organization Interview

Organization Name:
Organization Address:
Organization Participant (name, title)
Organization Participant (name, title)
Organization Participant (name, title)
BAVC Representatives:
Date of Site visit:
Location of Site Visit:

Introduction

BAVC Media's preservation team is conducting a two-year survey and research project, *Mapping the Magnetic Media Landscape*, to better understand the state of magnetic media preservation in the United States. The project develops a contemporary analysis of the field's practices, demographics, and challenges. The purpose of the analysis is to address barriers to audiovisual preservation through a collective response that supports focused training and advocacy and encourages collaboration. This interview provides a deep dive into the magnetic media preservation practices of three organizations of geographic diversity with different missions.

Notes for the Interviewer:

Fill out any answers that have already been answered in the interview and survey. Note any additional questions or clarifications that come up after reviewing the host organization's interview and survey responses.

Questions

I. **Follow-Up Questions (TBD per organization)**
The questions in this section are all required.

II. **Digitization Workflow**
The questions in this section are all required.
   1. **How is the decision to digitize made? In other words, what is the curation process?**

   2. **What is the pre-digitization workflow?**
      a. Describe the inventory process and software used
      b. Describe the assessment process (noting condition, etc.)

    c. Describe the preparation of magnetic media (labeling, etc.) *(Note: Interventions for damaged or decayed media is a separate question below)*

3. **How do you decide whether to digitize in house or with a vendor?**

4. **What interventions do you use on damaged or decayed tapes?** Please describe the process of any interventions that you use.
   a. Baking
   b. Mold remediation
   c. Tape splicing
   d. Repairing cases
   e. Other?

5. **Digitization Workflow**
   a. How many stations do you have?

   b. What equipment is in use?(covered in equipment list)

   c. What equipment is not in use? Why? (For example, stored for parts, as a backup, or broken)

   d. Tell us about how you prepare the equipment before digitizing

       i. Do you warm up machines?
       ii. Do you clean decks? If so, how often?
       iii. Do you test the signal flow with test tapes?
       iv. Is there any other prep?

   e. Can you provide a signal flow chart for any of your stations?

       i. Decks
       ii. Mixers
       iii. Scopes

   f. What are your workflows, techniques, and softwares for tracking media and files through the digitization process? (For example, softwares, etc.)

   g. If you digitize community media, do you have an intake form?

   h. Is the equipment set up and ready at all times?

6. **What are your target file formats for magnetic media?**
   a. Preservation
   b. Access

7. **What softwares do you use in the digitization process?**
    a. Digitization
    b. Compressing and copying
    c. Metadata creation
    d. Project management

8. **What is your quality control process?**
    a. Who performs quality control
    b. What tools are used for quality control?
    c. What methodology is used?

9. **Digital preservation and file storage**
    a. Where are files stored
    b. Who ingests them?
    c. Are checksums used?

10. **Access**
    a. How is access provided?
    b. What streaming platforms are used, if any?
    c. What public programs provide curated or creative access?
    d. How is the footage used inside and outside the organization?

III. Digitization Overview
The questions in this section are led by the interviewer and are conversational

1. What are your digitization challenges?
2. What are your strengths?
3. What best practices do you follow or base your workflows on?
4. How have you adapted those practices to a real-world environment?
5. How do you get equipment? Parts for equipment?
6. What equipment are you missing or would you like to have?
7. Who services your decks and equipment? How do you find them? Are they local?

IV. Collection Spaces
The questions in this section are all required.

1. Note Shelving type
2. Note Temperature and RH
3. Security - any challenges?
4. Onsite / offsite (note challenges)
5. How do you prepare for environmental issues like flooding or fires?

6. Do you have an emergency and disaster plan?
    a. When was it updated?
    b. Has it ever been tested?

V. Challenges in the Field and Resources to Address Them
The questions in this section are led by the interviewer and are conversational

8. **What do you see as the primary challenges in the field today?**
9. **Where has the field gained on the magnetic media crisis?**
    a. **What still are the concerns?**
    b. **Can you note any creative efforts changing the approach to digitization? For example, 3D printing of parts, online classes, in-person classes, mobile digitization, etc?**
10. **What training opportunities do you know of, both grassroots and institutional, that are changing the approach to magnetic media preservation? For example, Center for Home Movies, Witness, BAVC, CAW? Do you use these resources?**
11. **What training and education would you like to have?**
    a. **Who do you like to learn from?**
    b. **Online or in person?**
    c. **What works?**
    d. **What training initiatives do you teach or facilitate?**
12. **What role does your audience and community play in preservation? For example, do you hold community events, have a community digitization station, etc?**
13. **What would you like to see come out of this survey?**
14. **What resources do you think are necessary in the next 5-10 years in order for the field to meet the demands of mm preservation?**
15. **What is your long term vision or dream for your organization or project?**

Appendix E: Preservation Vendors, Notes from the Field

Interviews with Preservation Vendors
To support the survey data and interviews with collections stewards, we conducted interviews with five major audio and video preservation organizations: Preserve South, Moving Image Preservation of Puget Sound (MIPoPS), The MediaPreserve, BAVC Media, and George Blood LP. These organizations—which collectively digitize hundreds of thousands of assets annually—offer a unique vantage point on the state of magnetic media preservation. These insights reveal both urgent challenges and innovative solutions developing across the magnetic media preservation landscape. From equipment obsolescence and engineering expertise to format-specific deterioration and emerging technologies, these preservation vendors describe the complex reality of preservation work while highlighting collaborative approaches that could extend the window for preserving the nation's legacy audiovisual materials. As one vendor bluntly stated, "We've been talking about this for 25 years, it is right at the front door right now."

DOMINANT THEMES

Equipment Obsolescence
The most pressing concern across all preservation vendors interviewed for this report is **equipment and parts obsolescence**. All describe scouring eBay and dumpster diving for equipment. George Blood highlighted the urgency around video head manufacturing, noting "Ahead Tek is the last place in the world" for certain magnetic head refurbishment. BAVC Media and MIPoPS—both community-based non-profit organizations—are working with increasingly limited resources, while The MediaPreserve maintains warehouses full of equipment as "a hedge against what we know as obsolescence."

All organizations are actively seeking solutions, from stockpiling equipment to exploring 3D printing options for parts fabrication. Preserve South said, "We've been able to leverage 3D printing to keep some of the machines operating, which has been really interesting and fortunate." Two preservation vendors shared that they have the ability to manufacture machine parts that are impossible to acquire from manufacturers now. "We have a lot of expertise in machining materials, working with all kinds of materials," explained The MediaPreserve, "and so we probably have a range of ability to reverse engineer stuff. So that's one of our big strategies—to do that." George Blood has also invested in manufacturing capabilities: "We have a machine shop. We can manufacture parts." Examples include "the nozzles on the Keith Monk's record cleaning machines that are made from Teflon."

The situation with U-matic equipment emerges as particularly dire, with The MediaPreserve noting, "U-matics, U-matics, U-matics, they're horrible… And you know that the only person making heads for that says they're stopping doing it, right? And so that's a problem." George Blood also noted that **digital formats present unique challenges**: "No way, no how, any way is anybody ever going to be able to make new heads for, say, a digital multitrack audio machine. No way. Not ever. It's way too specialized. The tooling doesn't exist."

Technical Training

The magnetic media preservation field faces a critical challenge in maintaining and **transferring technical expertise** as experienced engineers near retirement. MIPoPS works with an engineer who is "about five or six years away" from retirement. George Blood employs multiple technicians but notes that all but one are "83 to 84" years old. BAVC Media is the exception, with a technician who is in his 40s—notably young for the field. The challenge isn't just about losing expertise—it's about the difficulty of transferring decades of knowledge and experience.

When asked if the knowledge of senior video engineers is transferable, Blood emphatically stated, "Not in ten hours of training, not in a hundred hours of training, not in a thousand hours of training." MIPoPS shared that they rely on "a really great guy in the area who was a video engineer for a really long time. Now he's the Sr. Technical Operations Manager at Lumen Field." This engineer has been teaching their staff basic repairs but "off the record-ish, to me, agreed that when he retires, he'll teach me and our staff how to do more of those things."

Preserve South's representative expressed concern about making time and space for knowledge transfer among their engineers: "I have been trying to push them to have some sort of a mentor program or something to make sure that we've got talent coming up through the ranks, because a lot of these guys are retiring." They added that despite this being a good idea, "it's really hard to put that into practice when you're inundated with the work, right? It's hard to train people when you're already so busy."

Physical Degradation of Collections

All organizations report increasing challenges with **collection condition issues**, particularly mold contamination and sticky shed (binder hydrolysis) syndrome, as well as **playback issues with older formats like ½" open reel EIAJ and ¾" U-matic tapes**.

"We have, over the last two years, seen a lot of half-inch open reel tapes and do continue to see a lot of half-inch open reel tapes, but that format is becoming increasingly more problematic," explained Preserve South. "So when I talk to clients now, I recommend that they prioritize those because I don't think that format will be

stable in the next two years." When asked if the issue was with the tape itself or the equipment, they explained, "It's a combination, but I would say for that format in particular, it was already such a bad format to start that what we're starting to see now is a lot of significant RF signal loss."

"U-matic as a material, those tapes just shed, shed, shed," The MediaPreserve shared, "So you have to stop and clean and stop and clean and stop and clean." Preserve South also noted increasing deterioration issues with U-matic tapes. "It's like the year of the U-matic. Everybody's been moving on their U-matic collections. We're seeing so many U-matic tapes come through. And then on the audio side, lots of ¼" open reel too, which is great. I mean, those two are really on the verge of being very vulnerable formats, U-matics even more so now. These days they require, you know, we're seeing the baking numbers for those go up."

MIPoPS notes that "in the last three years it's been harder... the **contamination level** on tapes in general is higher with mold and sticky shed,' attributing some of this to their Pacific Northwest location where "there's a lot of moisture." Geographic location plays a significant role in these challenges, with organizations noting regional environmental factors affecting collection conditions.

BAVC Media is actively seeking solutions for mold remediation, investigating new cleaning technologies, while The MediaPreserve has developed "a fairly significant dedicated mold remediation room." The increasing severity of these issues has led to longer treatment times and more complex preservation processes, affecting both workflow and pricing structures. Several organizations mentioned **affordable cleaning solutions**: MIPoPS has acquired "this little cleaner, that someone from the Smithsonian pointed me to was just this guy who lives in, I think, Florida, and he just makes this little thing. So it's, it's kind of like an out in the open vs. contained within a deck. And you're still kind of doing like a lot of manual cleaning, but it's sped up that process for us." BAVC Media also mentioned acquiring "the *VHS is Life* mold cleaning machine," which is inexpensive: "It's cheap. It's 200 bucks for everything all in."

Preserve South described **extreme baking measures** for assets with binder hydrolysis: "Even baking it for three weeks, which is kind of our standard now for those." They typically bake at "like 129, somewhere between 127 and 130. But yeah, for three weeks, they'll bake." MIPoPS has successfully experimented with **extended baking protocols** as well. "We were able to figure out more consistency; we used to do 48 hours at 125^{F}. We have found that baking for longer at a higher temperature (72 hours at 130 degrees) consistently yields better results than our old temp/bake time."

Closing Window on Magnetic Media Preservation
The looming sense of a **"cliff"**—a point at which equipment failure, parts scarcity, and

loss of expertise may converge to make certain preservation work impossible—is another concern shared by all preservation vendors interviewed for this report. This shared anxiety about future sustainability runs through all five interviews, though organizations are taking different approaches to prepare for and potentially delay this inevitability. When asked if he could see an "end line" for preservation vendors and their partners, George Blood was blunt: "It is definitely going to come one day and it will greatly accelerate the end... I think we're just going to fall off a cliff."

Preserve South's representative shared a personal concern: "I've had moments in my career over recent years where I'm like, I'm in my 40s. I'm going to have to pivot, right? This service is not going to be around in another 10 years." George Blood put it bluntly: "We've been talking about this for 25 years; it is at the front door right now. So, give up on cataloging the collection before you send it out. You have all the time after it comes back. If you don't get your tapes in for the hours that are left on the machines that are running, somebody else will."

COMING TRENDS
"Our journey in AV preservation has definitely mirrored the arc of formats as they obsolesce and as other things come into play," explained BAVC Media. "We're seeing a lot of DV coming in. And we're also grappling with SD cards and DVDs and those sorts of things."

Preserve South noted shifts in the formats they're receiving. "What we're seeing more of is optical media. And then we're also seeing more of data. Like a lot of floppy disks, a lot of zip drives, a lot of even old LTO tapes that have to be migrated over."

George Blood mentioned unusual spikes in certain formats. "We've had a sudden run on IVC 1-inch and D9s lately."

COLLABORATIVE APPROACHES TO PRESERVATION
Knowledge Transfer and Training Programs
Several organizations emphasized the need for formal training programs to transfer specialized knowledge. Preserve South advocated strongly for equipment maintenance training: "If we could have some sort of residency and training, you know, real formalized, hands-on equipment maintenance, kind of resurrect that field a bit more and help keep the industry going, that would be amazing. It would be a lifeline, I think, to keeping it going for a while."

BAVC Media proposed developing **a national training network**: "One thing that keeps on coming up is the idea of developing a playback gear maintenance community and building up some kind of education program around that. This extends beyond community-related activities. Part of what I think could happen is that we develop a

national network of technicians, and they host twice-yearly workshops for other preservation hubs across the country."

George Blood emphasized the importance of **supporting specialized parts manufacturers**: "We're throwing a lot of money at Ahead Tek right now as the last place to make the refurbished video heads, and we're trying to spend enough money to keep them alive." A collaborative effort to machine parts for organizations involved in preservation activities could result in extending the lives of both manufacturers and preservation programs.

George Blood also suggested a more **centralized approach to preservation**: "I think the dollars could be much better spent by gathering up all these five, ten, twenty, fifty piece collections into 1,000 piece collections, aggregating them into larger projects. It would be significantly less expensive."

CLOSING THOUGHTS

"When I started in this field, I would hear people say, well, we're not going to save everything. I would kind of take that personally. And I'd get a little upset about it. But over the past few years, I've really realized, no, we are not; there's no way we can save everything." - Preserve South

"I feel like recently I've been really hopeful with seeing how people are 3D printing printing parts for decks. And it seems like more and more people are trying to learn this information from video engineers. And I know that we all are hoarding whatever we can get our hands on. So I feel hopeful in the sense that, I mean, this might be like idealistic, but I feel like as a community, like, we're not alone. And hopefully we can all get these bits of knowledge and share them, and it can continue." -MIPoPS

Above: worker-owners of ENTRE Film Center, from left to right: Andres Sanchez, C. Díaz, and Monica Sosa

Case Study: ENTRE Film Center and Regional Archive

Preserving Media Through Holistic Community Participation and Activation of Place

Magnetic Media Collection Size: Micro collection size (200 items)
Staff Size: One full-time staff, two part-time staff, volunteers and interns
Annual Budget: Small Budget Size ($50,000)
Digitization Rate (previous year): Small digitization rate (35 items)
Location: Harlingen, Texas, Rio Grande Valley

Above: ENTRE Film Center and Regional Archive

Introduction

ENTRE Film Center and Regional Archive (ENTRE) is an artist-run community film center and regional archive founded in 2021 and located in Harlingen, Texas, in the border region of the Rio Grande Valley. It focuses on the creation, exhibition, and preservation of community-made cinema, documentary, video art, and other forms of alternative cinematic expression from the four counties making up the Valley: Cameron County, Hidalgo County, Willacy County, and Starr County.

Mission and Model

ENTRE's mission is to provide access, knowledge, and skills in filmmaking and archival practices, inviting more voices to document, share, and preserve the vast narrative of US/Mexico border communities.

> "We are nonhierarchical and NOT a nonprofit, so we are doing things differently. But we are not profit-driven. It would be great to show other people what is possible. Especially for a small organization."

Above: Co-founder and worker-owner Andres Sanchez explaining the significance of the logo—a Super 8 camera made of the 4 Rio Grande Valley counties ENTRE serves.

ENTRE's model is significantly different from a traditional institutional archive. It operates as a worker-owned cooperative, rather than a nonprofit. It is collectively owned and operated by the two co-founders and a third worker-owner. ENTRE is also a screening venue offering multiple film screenings per month—including Home Movie Day Screenings, screenings of archival footage of local communities, pop culture films, documentaries, and independent films. Often the screenings are curated by a guest programmer from the community, who presents the films and encourages discussion. It is also a community education center—offering classes in photography, personal archiving, and media making. An example of recent classes is analog film processing using plants and soil that come from the region. The ENTRE space, located in downtown Harlingen, Texas is where digitization takes place. They do not store physical collections, because their space is not equipped with proper storage conditions to do so. They have a digitization station that staff members use to digitize magnetic media as a fee-for-service. To encourage local participation, the station is free for local participants who want to digitize home movies and personal footage on their own. ENTRE offers an approach to preservation and access of magnetic media that prioritizes community engagement in preservation and curation.

Economic Model

ENTRE receives roughly 75% of its funds from nongovernment grants and 25% of its funds from for-profit activities. As a cooperative, they receive and manage grant funds, as well as a small amount of funding from community members who pay for the low-cost digitization of their home movies. Digitization is available at a low cost of $20 per tape.

Above left: Artist Lilith de la Torre preparing an ofrenda for Dia de Los Muertos.
Above right: Downtown Harlingen, Texas.

Reliance on personal connections and community ties is strong. For example, because of their personal enthusiasm for the collection, the building owner offers a below-market-value rent. The decision to use a cooperative model rather than a for-profit model was carefully considered because the worker-owners believed that a worker-owned cooperative provided them with more flexibility to perform social justice work as well as greater freedom of expression. They report that none of the worker-owners "make a living wage."

Staff

Of the three collective worker-owners, ENTRE employs one full-time paid staff member. Much of the work is done on a volunteer basis while the worker-owners maintain other jobs. Grants occasionally support artists and creative projects, such as the creation of the altar for Dia de los Muertos, where ofrendas (offerings) are placed on an altar in remembrance and prayer for deceased loved ones. These offerings traditionally include photographs; however, the ofrenda at ENTRE includes film as a centerpiece, emphasizing the blending of media with traditional cultural practices. The worker-owners, artists, and community members in charge of programming and digitization each bring their own personal and professional experiences to the project. No one on the team has received formal academic instruction as an archivist, despite having a variety of production-related training.

Volunteers and Interns

Volunteers and interns help with collection cataloging, teaching classes, curating screenings and events, and creating artworks and installations. Ongoing programs provide an opportunity for local community members to develop new skills outside their normal profession or studies—such as film curation or public speaking—that support their careers or interests.

Community Served

ENTRE's programs are hyper-local, with the primary community served being those living in the Rio Grande Valley, mostly on the American side. The organizations' worker-owners expressed interest in doing more work in Mexico.

Above: C. discussing plans to turn the courtyard behind ENTRE into an outdoor community space

Significant Collections

The primary focus of ENTRE's archive is the preservation of home movies, especially those that depict life in the Rio Grande Valley. This region, rich in cultural diversity, has long been underrepresented in mainstream media, and the worker-owners aim to correct this by collecting, digitizing, and sharing local history. To be considered for inclusion in the collection and digitization, footage must be locally produced, in the hands of a local person, or have a local connection.

ENTRE has two collecting and digitization streams. The first is a Rio Grande Valley-focused project, the Texas Film Round-Up, a program initiated by the Texas Archive of the Moving Image (TAMI). The Texas Film Round-Up offers free digitization for Texas-related films and videotapes in exchange for the donation of a digital copy of the materials to TexasArchive.org. In 2023, ENTRE partnered with TAMI to do a local, Rio Grande Valley-focused version of the Texas Film Round Up. This was an essential step in the expansion of the Film Center into archival practice. The collaboration culminated in a major collection effort, gathering over 2,000 pieces of film and video materials, including both magnetic media (VHS, Hi8, MiniDV, Betamax) and film formats (16mm, Super 8, Regular 8). "TAMI came into town and we had one big final push for collections. We ended up on the news on Sunday morning and that hit the jackpot," explained worker-owner C., "People were in a line outside the museum waiting to bring their tapes in, and they were bringing baskets and bags of tapes. We were nonstop in taking stuff." The second stream of collecting is an ongoing community home movie digitization program. Locals can have their materials digitized for a small fee, or they can do it themselves for free if they learn how to use the digitization equipment. ENTRE does not keep physical, analog materials after digitization because it does not have proper temperature and relative humidity storage conditions. Families take home a digital copy of their home movie and the original. The digital files remain on a hard drive at ENTRE, but there is no present clear plan to maintain the digital collection long-term.

C. Díaz's Family Collection is one important section in the collection. It includes their grandfather's Super 8 home movies. These films, which date back to the 1970s, document the opening of their grandfather's chain of grocery stores across the Valley. But what makes these films particularly meaningful is the magnetic sound accompanying them—capturing not only images but also the distinctive way people in the region speak. The accents and rhythm of speech are a unique marker of regional identity.

Above Left: Boca Chica Beach today
Above Right: a photograph showing a family at Boca Chica Beach, circa 2000. Courtesy of Monica Sosa.

Boca Chica Corazon Grande Collection and Project

C. notes: "We have an ongoing community archival project that's called Boca Chica, Corazón Grande, where we're trying to collect documentation of Boca Chica Beach, which is where SpaceX is currently located." As a central place for community gathering that is rapidly changing from a somewhat isolated natural and community area due to SpaceX's incoming industry, Boca Chica Beach represents a critical documentation gap—with only three photographs from the 1920s and 1930s at the Brownsville Historical Association and one 1960s home movie in TAMI's archive, making their collection potentially the largest of its kind.

> "We want to train people in our community to steward the archive with us."

Digitization / Preservation

Because community and place are central to ENTRE's mission, decisions about preservation workflows and equipment choices support community accessibility and preservation of all materials while using the least amount of equipment possible for the job, as well as simplicity and streamlined workflows. The goal is to achieve the best possible digitization using the simplest, least expensive, and easiest-to-learn methodology and tools; this makes the workflow extremely sustainable, even if the file quality may not meet preservation standards for institutional archives that value technical precision and quality. The model allows community members to participate directly in community preservation work by operating the equipment.

Above: C. holds the digitization manual, which is used to train community members on how to use the equipment and to ensure consistency in digitization methods among staff.

Digitization Rate and Risk of Loss

ENTRE is one of the only organizations surveyed that stated they are 100% confident that they can preserve all of their materials. This is because no material is brought in unless it can be preserved. This could change if a significant collection comes in as a donation or if the relationship with TAMI ends.

Tape to File Digitization Workflow

Decision to Digitize / Curation

Any Rio Grande Valley-related material brought in by the community is digitized, provided ENTRE or TAMI has the necessary equipment.

Pre-Digitization

Community members who bring in material for digitization fill out an agreement form and choose whether to digitize their tapes themselves or pay a small fee to have ENTRE digitize them.

Triage, In-house vs. Out-of-house

Magnetic materials are digitized on-site. Film and materials gathered during the Texas Round-Up are digitized at TAMI in batches.

Intervention

Minor repairs and cleaning are done in-house. ENTRE reports seeing some moldy tapes, but few other issues.

Digitization Workflow

Tapes brought in through the Texas Film Round-Up are digitized offsite at TAMI in Austin, Texas, roughly a five-hour drive away from ENTRE. ENTRE has one in-house digitization station that is used for incoming materials by community members. The station is located in the ENTRE space, where education and training classes take place, as well as public events and screenings. It is always set up and ready to be used.

Above: Andres with ENTRE's digitization station. Andres does most of the digitization work.

Above: The ENTRE digitization set-up located behind their screening/educational area. The affordable analog-to-digital converter ENTRE uses.

The in-house digitization system is wired directly—there is no switcher or patch bay. Digitization equipment includes an iMac computer and several magnetic media decks and cameras (VHS, Super Betamax, mini DV, Hi-8, microcassette, and compact audio cassette). ENTRE also has optical media players. ENTRE uses a Lala Max cable as its analog-to-digital converter and connects the computer and decks through a series of cables and a CalDigit hub to accommodate for the lack of inputs on the computer.

They digitize directly to the computer hard drive, then move the material onto a LaCie spinning hard drive when the computer drive is full.

Target File Formats
ENTRE makes only one file, rather than a preservation and access file.

Audio: .wav; 24 bit; 48 Kh
Video: .mp4; 8 bit color; h.264 codec

Software
Airtable is used to store basic collection information, and OBS (Open Broadcast Software) is used to import video files. Audition, Audacity, and Reaper are used to import audio files. Adobe Premiere Pro is used to trim the files. The comments section in Apple software is used to add simple metadata, such as the client's name.

Above: C. points out the Airtable used to store collection information and their plans for building it out to accommodate more data.

Quality Control

ENTRE checks the beginning, middle, and end of digitized files to look for aberrations and audio sync issues. Occasionally files are imported into Premiere to manage audio sync issues.

Section: Equipment Sourcing and Repair

Most legacy equipment is sourced from estate sales, auctions, and donations. Donations play a key role due to close community ties. ENTRE does not have a relationship with a repair technician, however, they recently learned of the existence of a local TV repair person and will investigate this as a possible source of equipment repair and knowledge.

Auxiliary equipment

ENTRE has a backlog of equipment that is used for art-making and workshops and the artist in residence program. ENTRE has a BAVC Media Hands-on Training in Audiovisual Preservation (HOT-AV) kit, used to train in analog workflows and troubleshooting. They also have a collection of TV-VCR combos, used for video installations and demonstrations.

Above: C. and Andres with auxiliary equipment, including the BAVC Media HOT-AV kit and a collection of TV-VCR combos.

File Storage

Files digitized at ENTRE are placed in Dropbox, and clients have 30 days to download them. Files from the Texas Film Round-Up are currently stored on hard drives at TAMI. There is no central system for storing the entire digital collection.

Access, Copyright, and Licensing

A few films from the Texas Round-Up are currently streaming on TAMI's website. Access is also provided through community events like Home Movie Day and the Dia de los Muertos event. "We're not set up to do licensing," shared Andres, "I think that's something that might come up in the future."

Emergency and Disaster Issues and Preparedness

ENTRE has no formal emergency and disaster preparedness plan written. It can flood up to one foot of water in the area, and preparation for this is part of ENTRE's common practice. Before a storm, staff turn off electrical breakers and elevate materials and equipment off the floor. ENTRE keeps a surge protector that also has a battery charger.

"A lot of people don't know about the importance of preserving their materials—that it's important to hold onto their tapes. We are still helping people to grasp holding onto their culture."

Advocacy

Staff note that, because ENTRE is small, it is helpful to work with other organizations and communities that can amplify their voice and the work that they do.

Training and Education Needs

The ENTRE staff has no formal education and training in archival work. However, their combined experience in color grading, music recording, photography, and filmmaking, along with on-the-job training, brings a variety of skills to the program. The staff states that they would like more training and education in caring for and accessing digital files. They also point out that they would benefit from understanding models around open-source tools and software.

There is interest in training not only staff but also the community in caring for their own collections, with more tech fluency in general in the region being helpful, as some people do not have computer skills. As a young archive and a living and growing part of an ever-changing community, they also want to develop structured workflows that are easily shareable with new folks that come in to work with the team.

Next steps and goals

ENTRE has several visions and goals important to their next steps. The largest goal is to become a research center, including an interactive map geotagged with their archive collections of the region. The development of a strong succession plan that is flexible, responsive, and emergent over time is also important to the organization. More immediate goals include developing online streaming and access to digitized collections, in tandem with a strong digital storage and maintenance plan. ENTRE is interested in opportunities for collaboration with larger institutions and museums, which can support collection visibility.

Above: University of Hawaiʻi West Oʻahu James & Abigail Campbell Library, where ʻUluʻuluʻs archive and research center are located.

Case Study: ʻUluʻulu The Henry Kuʻualoha Giugni Moving Image Archive of Hawaiʻi University of Hawaiʻi West Oʻahu

A state-wide collecting and preservation initiative in a geographically isolated region with rich cultural heritage

Magnetic Media Collection Size: Large Collection (49,000 items)
Staff Size: Five+ full time staff, two part time staff, and typically one intern
Annual Budget: Medium Budget ($400,000)
Digitization Rate (previous year): High Digitization Rate (1,100 items)
Location: Kapolei, Hawaii

Above: The 'Ulu'ulu staff: Janel Quirante, Head Archivist; Tisha Aragaki, Assistant Archivist for Reference and Outreach; Heather Giugni, Collections Specialist/Producer; Koa Luke, Assistant Archivist for Cataloging; Robert Omura, Digital Media Specialist. Right: Hōkū Ka'aha'aina, Assistant Archivist for Processing is included in the photo to the right.

Introduction

'Ulu'ulu is the official state moving image archive of Hawai'i, founded in 2009. It is part of the University of Hawai'i West O'ahu James & Abigail Campbell Library. 'Ulu'ulu was developed as a project of the Academy for Creative Media System at the University of Hawai'i. It is unique in that it was formed specifically to take in statewide audiovisual collections from other collecting institutions that do not have the specialized training or equipment to preserve these materials.

Mission and Model

'Ulu'ulu aims to perpetuate and share the rich moving image heritage of Hawai'i through the preservation of film and videotape related to the history and culture of Native Hawaiians and the people of Hawai'i. 'Ulu'ulu is a Hawaiian word meaning "collections," "assembly," or "gathering." The archive is not just a collection of moving image items but also an assembly of voices, communities, and stories; a gathering place for people to share Hawai'i's culture, traditions, and collective memory. 'Ulu'ulu was founded with the idea that it would work collaboratively with other archives, and on the premise that other archives could learn from its expertise and collaborate. The audiovisual collections that came into 'Ulu'ulu were originally held at their organizations and were often only one small part of an overall collection containing mixed media. 'Ulu'ulu offers specific expertise in audiovisual preservation.

> "Our archive is not just a collection of moving image items, but also an assembly of voices, communities, and stories"

Above: Janel Quirante in the archives workspace.

Economic Model

'Ulu'ulu receives about 75% of its funding through government support. Non-governmental grants account for approximately 25% of its funding. The administration goes to the legislature every year to advocate for the program. Because it is part of the university system, it is subject to university-wide budget decisions.

"We are in touch with archives all over the island, and there is a strong network. We are all friends. We know how to refer researchers to the right place. We are not trying to monopolize the work of archiving in Hawai'i. Because we can't do everything ourselves, we make it a point to stay in touch with Hawai'i archivists and the Hawai'i Library Association and Hawai'i Museum Association. These groups form field building and networking."

> "Before 'Ulu'ulu existed, probably no one in Hawai'i would have described their job as a moving image archivist."

Staff

Core staff also includes the following positions: Collections Specialist / Producer, Digital Media Specialist, Cataloger, Reference and Outreach Archivist, and Processor. There are occasionally floating part-time positions, such as project assistants on grant-funded projects. Typically these are one-year positions that can be renewed depending on the availability of funding.

Volunteers and interns are an important part of the infrastructure of ʻUluʻulu and its focus on community building and education. They frequently host fellows from the Pathways Program, a program operated by the Association of Moving Image Archivists (AMIA). The AMIA Pathways Fellowship supports paid internships in combination with mentorship and professional development training to forge pathways in the audiovisual preservation field for people from groups historically underrepresented in the profession at any level of their career. At the time of this report, the current intern is working directly with a living filmmaker to process and catalog a collection.

Community Served

The collection is used by filmmakers and producers (often working on documentaries), University of Hawaiʻi students, and the general public. Many members of the general public come to ʻUluʻulu researching family genealogy. The majority of users are from Hawaiʻi, with the exception of filmmakers, who are working on documentaries about Hawaiʻi's history but do not live there. Collection donations come from both individuals and organizations.

> "One thing that's unique about Hawaiʻi and about ʻUluʻuluʻs collection is that, in the very beginning and even now, it was all built on trust."
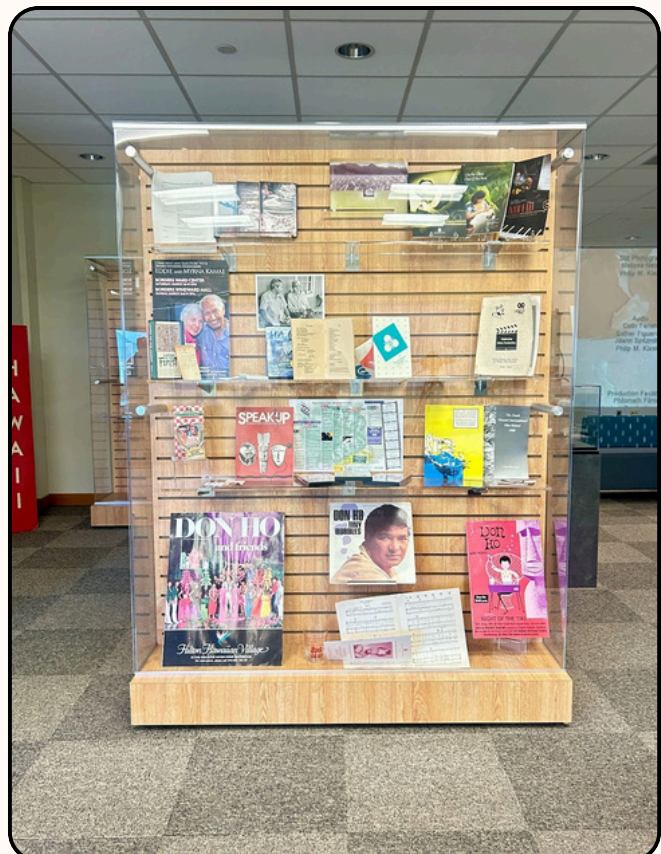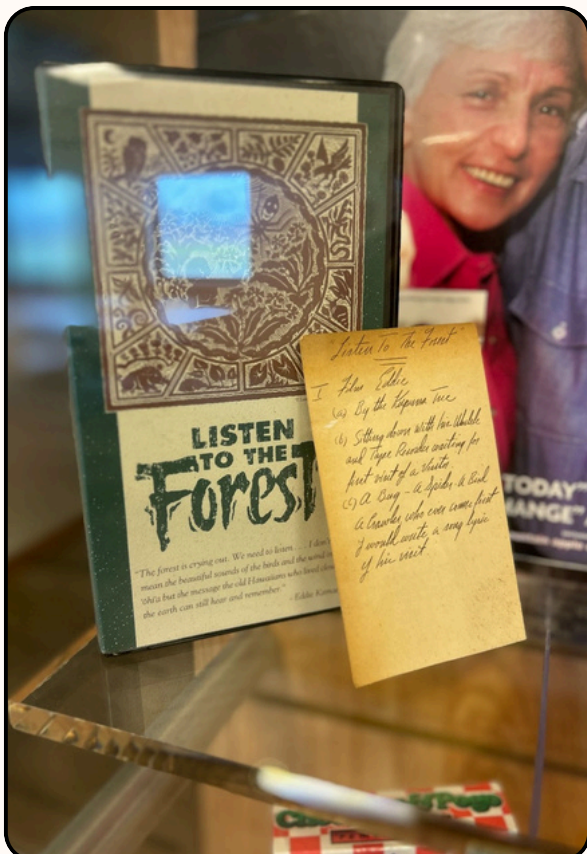
Above: Display case highlights the Don Ho collection; and the Hawaiian Legacy Foundation Eddie & Myrna Kamae collection

Significant Collections

'Ulu'ulu collects cultural materials from all communities in Hawai'i, not just native Hawaiians. They collect non-commercial materials from all over the islands, including local television stations, museums, media organizations, home movies, independent filmmakers, and individuals. They do not collect Hollywood films shot in Hawai'i. The collection includes film materials from 1900 to the present day. It contains a wide variety of genres, including regional and cultural documentation (language, traditions, etc.), educational films, television, news, and scientific research material. 'Ulu'ulu becomes more selective about what they collect, in part due to concerns about space. They are currently piloting the intake of small born-digital collections, but it has not been fully implemented at this time.

The Bishop Museum Collection consists of approximately 5,000 film reels from 1915 to 1976 (including some magnetic media).

Merrie Monarch Festival Collection: This Hula competition has been televised since the 1980s. It started as a revival of the ancient style of Hula and also documents the Hawai'i renaissance of the style. It now also contains a modern hula dance competition.

The PBS Hawai'i Collection contains production materials and raw footage related to programs produced by and broadcast on PBS Hawai'i (KHET), a PBS member television station located in Honolulu, Hawai'i. Program titles include: Pau Hana Years; Newsmakers; Dialog; Hawaiians; The Breaks; XL : The UH Sports Show; Spectrum Hawaii; Era of the Pacific; and Hawaiian Quilting. They are currently partnering with the American Archive of Public Broadcasting to digitize nearly 1,500 videotapes from this collection.

Collection Storage

Above: Temperature and relative humidity (RH) monitors in the vaults. This was a high humidity day, and the vaults usually average 54% humidity (left). Shelving in the primary vault (middle). Janel near carts that provide extra storage outside the vaults (right).

The onsite media vaults have temperature and relative humidity control. Items are stored on moveable, space-saving shelving and another storage area serves as a triage area for incoming collections. Collections are assessed, and contagions such as mold are identified before the materials are brought into the main collections. ʻUluʻulu faces a significant challenge with space in their vaults. The vault is approximately 80% full with collection materials—mostly videotapes and films, with some audio recordings and paper-based materials. Staff expect the vault will reach capacity within seven to ten years based on current acquisition activities. One collection is housed on tall carts outside the main storage area. The donor underestimated the collection's size by three times. With the donor's agreement, ʻUluʻulu created separate storage for this collection to preserve vault space for future acquisitions

Digitization/Preservation

The geographic isolation of the islands creates unique challenges in obtaining and repairing legacy analog and contemporary equipment required for digitization. Originally, the archive was formed with the idea that it would serve as a central digitization facility for the state of Hawaiʻi, where there are no archival-level digitization facilities. ʻUluʻulu set up a digitization lab, but as playback equipment broke down, it became cost prohibitive to send it to the mainland for repair. Shipping equipment is also prohibitively expensive. Staff performs regular maintenance, but there is no one who can do the work of a bench technician or perform major deck repair. As a result, ʻUluʻulu began to send more tapes to a trusted vendor on the mainland, which is more cost-effective, despite being over 2,000 miles away. Currently, they outsource 80-90% of their digitization work.

The Digital Media Specialist performs limited on-site digitization focused on researcher requests, staff-selected projects, and Betacam materials. This free service for researchers totals about 10 hours monthly in-house.

Above: Digital Media Specialist, Robert Omura demonstrates the digitization setup (left). In the collections storage (right).

Digitization Rate and Risk of Loss

'Ulu'ulu rates itself as "somewhat confident" that all priority materials can be digitized at the current rate. They estimate digitizing about 1,000 tapes last year and expect to continue at that pace. To date, only about 10% of the collection is digitized, with no anticipated rate increase as analog materials continue arriving. This leaves tens of thousands of magnetic materials unpreserved, as 'Ulu'ulu is at staff capacity for preservation work.

Decision to Digitize/Curation

Preservation priority is based on whether the content has high research value and the physical format's general degradation. Older and less stable formats, such as 2″ Quad, ¾″ U-matic, and ½″ open-reel are high priority. 'Ulu'ulu also focuses on preserving collections in accordance with the grant requirements and deliverables available to them, as government grants are a significant funding source for preservation. The decision-making process begins with acquisition: when a collection comes in, it is surveyed, informing future preservation decisions.

Pre-Digitization

Materials enter a quarantine room and are inspected for mold, damage, or other issues that may affect the larger collection. Collections are then sent to the Processing Archivist, who checks tapes for odor and mold. Tapes are cleaned externally, if needed. An intake checklist is part of 'Ulu'ulu's cataloging software, Recollect. 'Ulu'ulu maintains a pre-digitization migration queue that tracks all in-house and vendor digitization work, serving as the starting document for digitization projects. The queue records completion status and any digitization failures. Before digitization, tapes are cleaned using SAMMA system cleaners, which also run diagnostics. Tapes that fail diagnostics are removed from the in-house queue and sent to specialized vendors.

Above: Janel with the U-matic tape cleaning machine and a Beta tape cleaning machine. These were part of the organization's SAMMA system, and are the only part of the system still in use.

Triage, In-house vs. Out-of-house

If a researcher requests a tape or collection that can be digitized in-house, it will be. Materials with significant issues, like mold, are stabilized and sent out to a vendor if they are identified as a priority. Large collections will go to a vendor if there is funding to do so.

Intervention

'Ulu'ulu reported that mold and sticky shed are the biggest problems in their magnetic media collections. Mold is reported as an especially significant problem throughout the state due to the high humidity of the climate. If a tape with mold is identified, the item is sealed in plastic and triaged from the collection. If it is a duplicate, it is deaccessioned.

Digitization Workflow

There are two digitization stations at 'Ulu'ulu. One setup is permanent, while the other is currently being reassembled and will also be set up permanently. At the time of this report, the latter was in another building on campus due to library building repairs and is being moved back into the current digitization space. This report covers only the existing and currently in-use onsite digitization station.

Betacam SP and VHS decks are hooked up to a patch bay. The setup includes a vectorscope, monitor, and two TBCs (Leitch, Holtronic Incorporated) to monitor and strengthen signal. The analog-to-digital converter is an AJA IO.

Before operation, equipment is warmed up for ten minutes. Decks are cleaned as needed, usually after every tape. Equipment is unplugged at the end of each day.

Target File formats

'Ulu'ulu has a document detailing all specifications for access and preservation file types for video and film. 'Ulu'ulu does not collect audio-only formats. In this case study, we present the standard file and wrapper types used for preserving and accessing video files.

- Preservation: 10-bit Uncompressed Quicktime .MOV file; Format: PCM
- Access: H.264 Quicktime .MP4; AAC LC

Software

Final Cut Pro 7 is used for ingest and editing, and Adobe Premiere is used to test files.

QuickTime and VLC media players are also used for file playback. Compression, copying, and watermarking are performed using Adobe Media Encoder (AME). MpgStreamclip and Apple Compressor are also used for compressing and copying.

Quality Control

'Ulu'ulu performs quality control on all tapes. They use QC Tools open-source software and visually check the beginning, middle, and end of files to ensure audio and visual quality.

Equipment Sourcing and Repair

It is extremely expensive to source and repair decks on the island. At the time of this report, 'Ulu'ulu staff surveyed their collection of playback equipment to determine what works and what does not: most of the decks in the lab are operational.

Auxiliary equipment

'Ulu'ulu stores decks that no longer work but can be used for parts. A group of television

engineers originally helped to create the digitization station but haven't serviced the decks in about four years.

File Storage
'Ulu'ulu stores files on a dedicated server in the university system. The university recently contacted 'Ulu'ulu staff to let them know that they are at server capacity and that there is no more server space available for audiovisual materials. The staff of 'Ulu'ulu must find their own new storage solution.

Access, Copyright, and Licensing
'Ulu'ulu provides some online access to footage, but is very cautious about licensing. The Recollect content management system hosts both an online public access catalog and an online streaming service. Footage is only available to stream in short clips; community members must register with 'Ulu'ulu to view the entire collection.

Janel explains, "A lot of filmmakers are very, very, very protective of their collections and their work. And so when we first started, it was a lot of community discussion trying to explain what we were trying to do because this was brand new. We had to create a pilot project first and create a digital collection to show all of the potential donors what we intended to do and how we were going to do it in this thoughtful manner. And so all of these procedures that I'm explaining to you now really came about because of feedback. Feedback from community members, feedback from filmmakers, or really a lot of tough questions from filmmakers like, what if something private comes up, what are you going to do about that? Through addressing all of their concerns, that's how we built all of these procedures that we practice now."

Emergency and Disaster Issues and Preparedness
'Ulu'ulu has a disaster preparedness plan in progress and which is being refined. They note that it has been difficult to find a disaster plan that is audiovisual specific.

Advocacy
'Ulu'ulu notes that "there are so many things to advocate for, and the main ones are preservation and funding." Staff meets with the university and the state legislature on a regular basis to explain their work and why it requires ongoing support. They report that they also advocate in the community to community members who may still have collections that are not preserved. The third kind of advocacy they engage with is promoting the proper use of the collections and access to the collections. They note that they are always needing to educate the facilities team on why they need lower temperatures and RH for the collections.

Training and education needs
'Ulu'ulu reports that its greatest training needs are in disaster planning and remediation and in maintaining and storing digital files.

The organization has a disaster response plan that is being refined with the goal of sharing it with other Hawai'i repositories that have audiovisual collections. When they began writing the plan, they reached out to other institutions in Hawai'i and found that no one had a disaster response plan specifically targeted to audiovisual collections. The goal is for their plan to benefit other organizations throughout the state.

Next steps and goals

A top goal for the organization is to formalize their strategic plan and create succession planning. 'Ulu'ulu would like to be more visible—they note that many people still do not know they exist, even though they are on par with major organizations like the State Archives and the Bishop Museum.

Since the site visit, 'Ulu 'ulu has implemented cloud storage on Amazon AWS Glacier Deep Archive.

> "I feel like we're so isolated and remote out here that some things that we're doing, I just always want to make sure that we're still doing things that is an industry standard"

Above: The AVMPI Core Team at Smithsonian Institution Library and Archive: Walter Forsberg, Curator of Audiovisual Media; Kayla Henry-Griffin, Media Collections Specialist; Brianna Toth, Video Preservation Specialist; Alison Reppert Gerber, Preservation Coordinator + Head of AVMPI, Smithsonian Libraries and Archives; Siobhan Hagan, AVMPI Coordinator; Dan Hockstein, Audio Preservation Specialist

Case Study: Smithsonian Institution Audiovisual Media Preservation Initiative

A model for large-scale preservation rooted in best practices, professional education, and access

Magnetic Media Collection Size: Large collection size (215,000 items)
Staff size: Five+ full time staff, three contract staff, and one intern
Budget Size (Institutional): $1,144,000,000
Budget Size (departmental): Large budget size ($750,000)
Digitization Rate (previous year): High digitization rate (500 items)
Location: Washington, DC
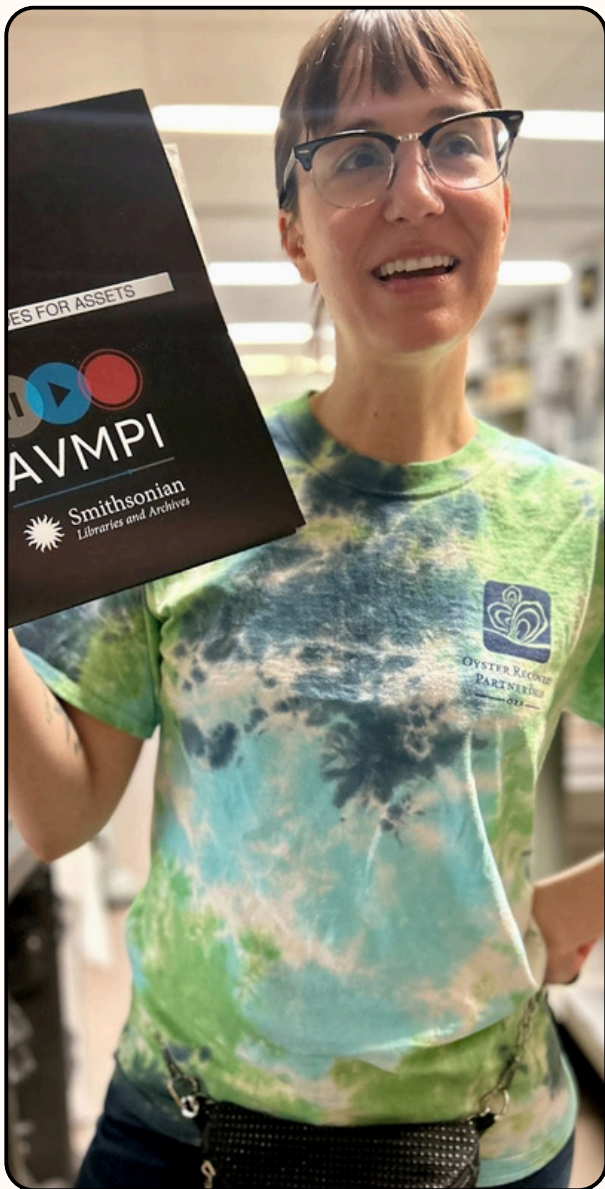
Above: Siobhan Hagan (left), Alison Reppert Gerber (right)

Introduction

The Audiovisual Media Preservation Initiative (AVMPI) is an initiative of the Smithsonian Institution (SI) located within the Smithsonian Libraries and Archives (SLA). The SI is the world's largest museum complex, whose preservation work includes the care of an estimated 300,000 audiovisual items in twenty-one museums and fourteen education and research centers. AVMPI was founded in 2022 with a mission of "capturing, preserving, and sharing the history of the Smithsonian Institution." The AVMPI is the first pan-institutional program for audiovisual preservation at the SI, performing a full suite of audiovisual preservation services from inventory, curation, and digitization of analog formats to digital file management, online access, and screening events. In addition, AVMPI develops and delivers preservation education and training for units within the Smithsonian and for a community of external students and professionals. In October 2024, AVMPI won a "Digital Innovation Award" at the Smithsonian Excellence in Digital Awards.

Above: Description of AVMPI services from their webpage

"Although we are considered a project, we are more like a department."

Mission and Model

The goals of AVMPI, as stated on their website, are:

1. Goal 1: To develop a centralized space dedicated to the conservation and preservation transfer of Smithsonian audio, video, and film collections.
2. Goal 2: To prioritize audiovisual collections for preservation based on format degradation and content value.
3. Goal 3: To create standard, pan-institutional workflows for the management of AVMPI to maximize the use of resources.
4. Goal 4: To ensure institutional preparedness for digital preservation and increased storage needs.
5. Goal 5: To promote the overall mission of the Smithsonian Institution by increasing access to digitized audiovisual collections.

History and Future of the Program

Prior to the establishment of AVMPI, museum units were individually responsible for preserving their own audiovisual collections, resulting in inconsistencies and inefficiencies across SI. Some museum units had on-site magnetic media preservation programs, and some did not.

Since the early 2000s—as part of its pan-institutional service role for other museum units—the SI Archives made available its audiovisual digitization equipment to other unit staff (and was, notably, one of the original test sites for the SAMMA Solo video digitization technology). This pan-institutional service role directly led to SI Archives hosting the initial efforts that lead to AVMPI. Staff from SI Archives secured multi-unit funding from SI's Collections Care and Preservation Fund from 2015 to 2019 in order to undertake item-level inventories across eleven museum units. The SI Archives were amalgamated with SI Libraries in 2020 as "Smithsonian Libraries and Archives" (SLA), and SLA served as the host administrative and physical space home for AVMPI since its official launch in 2021. Due to budget cuts and administrative directives from the SI's Under Secretary for Science and Research, the SLA's new leadership has decided not to financially support the AVMPI as a program beyond its current funding through Fiscal Year 2027. The initiative's funding model moving forward remains to be determined, and the AVMPI's service model future is unclear.

Economic Model

Government funding provides 51-75% of the AVMPI's budget, with 0-25% attributed to both "endowment" and "other sources." The AVMPI is required by federal government procurement rules to compete with external vendors for SI digitization contracts. Those contracts are funded primarily by the Smithsonian's National Collections Program (NCP).

Above: Posters in the AVMPI offices and digitization suites.

Staff:

AVMPI has six full-time staff members: Curator for Recorded Media, AVMPI Coordinator, Media Collection Specialist, Media Collection Specialist, Audio Digitization Specialist, Video Digitization Specialist. The Head of Preservation Program is also key and plays a central role in overseeing the program but also works on other projects. AVMPI occasionally has an intern, and hires contractors to assist in work as needed. AVMPI has assembled a staff with a high level of academic training in audiovisual preservation; many of the staff have master's degrees with audiovisual preservation concentrations, lending the program an exceptionally high level of expertise.

Community Served

AVMPI largely serves the SI itself, since the institution comprises many internal units that require preservation work. It also serves the general public through programming, which includes contributing footage to museum exhibits and hosting online screenings. AVMPI has a strong education component, providing vital training in audiovisual preservation to archivists and cultural workers. SI staff are provided with audiovisual training kits that support inventory and assessment, inventory templates, and in-person training sessions. AVMPI also works with educational organizations, such as the University of California, Los Angeles Rare Book School, to provide training to students studying audiovisual preservation.

> **"The most exciting magnetic media collection is the one that we haven't digitized yet. Each one is a discovery in that regard."**

Significant Collections

Smithsonian Productions: Since the 1950s, the Smithsonian produced thousands of radio programs, television shows, exhibition films, and audiovisual collection compilations, however an overwhelming amount of these remain trapped on analog format carriers (especially magnetic tape). The AVMPI has targeted Smithsonian-produced media as a preservation priority including: over 1000 episodes of the radio program *Radio Smithsonian* (1969-1991) including raw, unedited interviews with cultural figures like musician Jerry Garcia; final "master" versions of home video commercial releases held on 'degralescing' magnetic media formats like D-2 and 2" quadruplex videotape; and, exhibition media displayed in galleries and museums, starring figures like African American astronaut Guy Bluford and television chef Julia Child.

Personal Papers: The personal paper (and audiovisual media) collections of thousands of historical figures are cared for by SI museums and archival units. Digitization of magnetic media within several of these collections has been a preservation priority of AVMPI, including:

NASM's collection from astronaut and LGBTQ+ icon Sally K. Ride; the National Museum of American History Archives Center's collection from American multi-level marketing guru and Tupperware mastermind Brownie Wise; and, works within the Archive of American Art by artists like Nancy Spero and Aldo Tambellini.

Above: Julia Child explains the universe's 'Primordial Soup' in a 1973 exhibition video held on 2" quadruplex videotape from the National Air and Space Museum (NASM) and digitized by AVMPI. Object # NASM_DB-00208.

Digitization/Preservation

Digitization Rate and Risk of Loss

Until recently, the program was developing and solidifying its workflows and digitized 500 items in the last year. Their projection moving forward is to digitize 20,000 items over the next five years (4,000 items per year). Even with that expected increase, the organization rates itself as "somewhat unconfident" that they can digitize all priority magnetic media materials. From the website: "At our current rate of preservation, the Smithsonian is facing an estimated total loss of 190,000 audiovisual assets by 2034."

Above: A 2″ quadruplex videotape television commercial from the National Museum of the American Indian (NMAI). Object # NMAI_001.003_33901000023804_p. Digitizing 'degralescing' magnetic media formats are a preservation priority for AVMPI, and the initiative has eliminated 2″ quadruplex analog videotape and D-2 digital videotape formats from its list of un-digitized 'at-risk' formats across all SI collections.

Above: Curator Walter Forsberg researches collections across the Smithsonian and advises on preservation. His guidance is based on objects' uniqueness, content, and fragility, among other considerations.

Tape to File Digitization Workflow

Decision to Digitize/Curation

An interconnected set of considerations guide preservation prioritization decisions. AVMPI has a dedicated curatorial position tasked with determining audiovisual preservation priorities throughout the institution; his research and expertise guide all program actions. The curator is also the primary development fundraiser outside AVMPI's central funding from the National Collections Program and regularly collaborates with unit stakeholders to submit collaborative project applications to internal SI pool funds and outside philanthropic sources. Staff reports that for the time being, while the AVMPI is still building their visibility and demonstrating their value to the wider institution, the curator sometimes selects projects that are "easy wins." One example of this is a unit that has a small collection of important and mission-centered tapes that are endangered, but in a unit with no audiovisual archivist—a clear case for AVMPI intervention. The list below outlines other instances of prioritization.

- Material has been prioritized by a unit curator, staff, or researcher.
- AVMPI is sending a batch of rare formats, for example D2, to an outside vendor for digital transfer. In this case, staff sends emails to other units to see if they also have materials in that format, which can be included in the batch. Frequently, units require assistance from AVMPI staff to identify formats in their collections.
- The AVMPI curator's ongoing research informs priorities; he will identify materials that are unique and fragile and will look for material related to current exhibits or events.

Above: Assets are barcoded, indexed, and boxed once they come into the AVMPI space by Kayla Henry-Griffin.
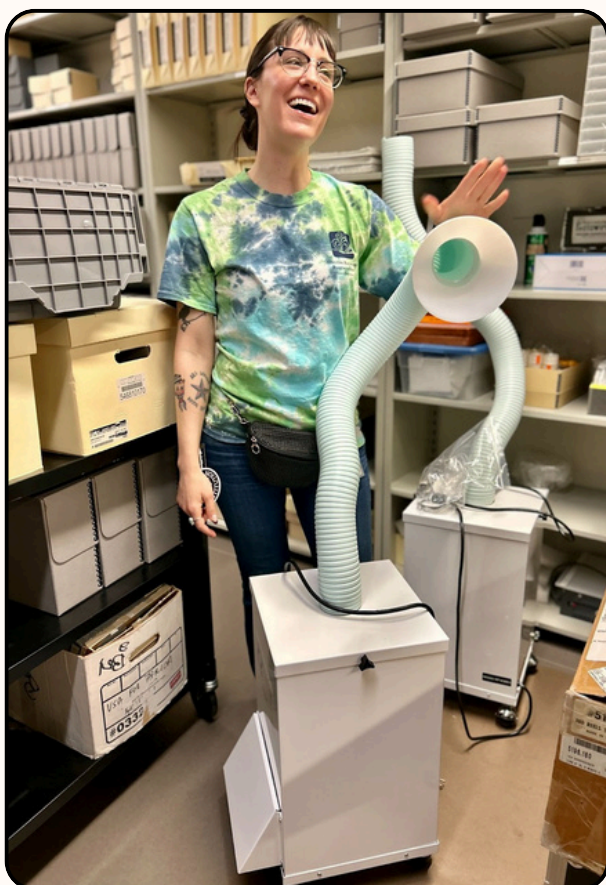
Above: Baking is mandatory for ¾″ U-matic (left). Other formats are baked as needed. Siobhan Hagan demonstrates portable air filters, used for materials that off-gas (right).

Pre-Digitization

Assets are chosen and sent to AVMPI from other unit locations. Assets are sometimes picked up and driven back to AVMPI by AVMPI staff—a time consuming task. All materials are labelled, barcoded, and placed in bins to maintain organization.

Triage, in-house versus out-of-house

Format and condition determine if an asset can be transferred in-house or will go to a vendor. Staff notes the importance of having in-house digitization labs and expertise but also note that it is useful to receive a large batch of completed transfers from a vendor. If an asset is in good condition and it is a format that can be handled by the AVMPI lab, it is transferred in-house. Moldy items, items requiring remediation, and formats for which AVMPI does not have playback equipment are sent to a vendor. Formats that can be digitized in-house include most standard cassette tapes, such as U-matic, Betacam Digi-Beta, DV, VHS, compact audio cassettes, and DAT. The audio lab can also digitize ¼″ open reel audio. The audio lab can handle multiple parallel transfers of compact audio cassettes and is working towards capacity for parallel transfers of ¼″ open reel audio to increase output. AVMPI currently has large projects at vendors to digitize D2 formats, open reel 2″ video, and ½″ inch EIAJ—formats that cannot be transferred in-house.

Intervention

Dirty tapes or materials with vinegar syndrome can be handled using portable air filtration devices. Staff can do minor tape and sometimes tape case repair. Moldy materials are sent out to a lab.

Above: VHS is Life cleaning machine (left). Audio preservation lab, Dan Hockstein (right)

Digitization Workflow

Video Digitization Workflow

This report focuses on AVMPI's magnetic media preservation efforts; however, some SI units have their own digitization stations. Digitization capabilities, workflows, and equipment vary slightly by unit. AVMPI helps other SI units develop magnetic media digitization stations and has equipped other units with similar equipment, but other units lack specialized equipment such as ovens for baking tapes or TBCs with S-Video inputs. AVMPI occasionally bakes and cleans tapes for other units, creating a collaborative workflow.

AVMPI's video transfer uses a patch bay that switches between three different VHS decks and two different TBCs to assist with troubleshooting. They use a Leitch DPS-575 and AJA FS1 TBC with a Tektronix 1780R vectorscope and waveform monitor. The AD converter is a Blackmagic Ultrastudio 4K, which will be upgraded to an UltraStudio 4K Extreme 3. AVMPI technicians work under the Mac operating system and are currently using Mac Minis from late 2018 with Intel chips, but are waiting for the newer Mac Mini (2024 M2 chip). They use vrecord and DVRescue for video transfer. Vrecord is used in conjunction with Blackmagic Desktop because it requires a Blackmagic capture device. MediaConch is used for batch-level conformance checking. MD5 checksums are created for all files AVMPI creates. For in-house transfers, they use the Smithsonian's MD5er Tool. Individual units are responsible for ingesting their own deliverables since everyone's workflow is a bit different, but AVMPI uses Volume File Copy Utility (VFCU). VFCU is a tool that was developed in-house to transfer and validate large volumes of files from a source location (vendor local store or SI network attached file store) to DAMS Staging for eventual DAMS ingest. AVMPI also uses rsync to move files to the FreeNAS.

Formats Digitized at AVMPI include:

- Umatic-S/Umatic/UmaticSP
- Betacam/BetacamSP
- Digital Betacam
- HDCAM
- MiniDV
- DVCPRO
- 8mm video (Video8, Hi8 and Digital8)
- VHS (SP/LP/EP & NTSC/PAL/SECAM)
- S-VHS

Audio Digitization Workflow

"The audio system is centered around a Mac Mini connected via Thunderbolt to a state-of-the art Lynx Aurora(n) Analog/Digital and Digital/Analog converter to support digitization duties. The Lynx unit interfaces with the analog and digital equipment situated throughout the room via balanced analog audio connections (where voltage = audio information) or digital format pipelines (where voltage = 0 or 1 = bits in a sequential stream that form digital audio information). The Lynx unit creates a digital bitstream out of the analog information or passes along the already-digital information to the computer. The computer, running Steinberg software – Wavelab for a single stereo or mono transfer, or Cubase for multiple parallel transfers occurring at once – then stores the bitstream(s) provided by the Lynx in a digital .wav file made to preservation specifications. Audio is monitored through a set of Genelec 8331 monitors, connected digitally to the Lynx. These monitors are equipped with digital signal processing that uses a microphone to calibrate and shape the sound and remove undesirable room resonances. As a result, the transfer engineer can make small adjustments according to the information present in the recording, rather than information that may be "added" by the acoustic space."

Target File formats

The staff work directly with Federal Agencies Digitization Guidelines Initiative (FADGI) in determining the target file formats.

Quality Control

The Project Coordinator notes, "One of the other biggest hurdles for us is doing quality control. We're trying to find the balance of our workflows, really to make sure that we're not spending too much time, that we're being efficient, but that we're also minimizing errors." The video digitization lab notes that due to equipment repairs and maintenance, transfers have been more consistent and increased in volume. Since the beginning of May, transfers have increased by 94% and transfer failures were eliminated by 84%.

Equipment Sourcing and Repair

AVMPI has a large range of equipment in its department, and SI has an enormous inventory of equipment throughout the organization. AVMPI implemented onsite maintenance plans for multiple units and drafted a service agreement with an outside vendor for FY2025 to reduce extensive repairs and maintenance and eliminate setbacks due to equipment failure.

SMITHSONIAN LIBRARIES AND ARCHIVES Audiovisual Media Preservation Initiative
Audio Lab Information Sheet

The team identified new repair technicians who can service video equipment onsite and created an up-to-date list of the remaining technicians in North America. This included finding the only (2) remaining technicians who can service scopes and (3) remaining technicians who can service Cathode Ray Tube (CRT) monitors.

In addition, AVMPI uses and tests equipment made by grassroots and DIY organizations, such as VHS is Life tape cleaner and T.A.P.E. Collective educational resources. They embrace DIY projects that seek to overcome challenges in the field from a fresh perspective.

File Storage

Files are ingested into SI's file storage and management system, the 'DAMS.' The OCIO (Office of the Chief Information Officer) is dedicated to long-term file storage and maintenance, and it works in close collaboration with AVMPI and other units to upload and maintain files. OCIO has the benefit of having trained audiovisual archivists on its staff who can address the specific needs of digital preservation files.

Access, Copyright, and Licensing

AVMPI facilitates access to the magnetic media collections via Smithsonian Online Virtual Archives (SOVA) page, online screenings called "Zoom with a View", and in-person events. A clear terms of use page describes how users may use the footage. The organization facilitates access to audiovisual preservation education, training, and skill sharing via training kits made for SI staff and an online resources page with publicly available templates for assessing and inventorying audiovisual media. It engages in in-person training events– for example, the weeklong seminar in Audiovisual Preservation for the California Rare Book School in 2023.

All or most streaming content includes services for the blind and hearing impaired, such as captioning.

> "Through the career of twenty years working with archival materials, I spend 75%-plus of the time explaining, educating, and lobbying for resources and support for this kind of work."

Advocacy

In addition to performing centralized preservation, AVMPI educates and trains staff across the institution managing their audiovisual collections in order to empower units—especially those without an audiovisual specialist—to better understand what they have, how they can use it, and how AVMPI can support them in preserving and accessing the content.

The project is the result of years of advocacy, surveying, planning, and strategizing by staff and consultants—all of which had significant financial support from the institution. The first AVMPI staff were hired in 2022 to pilot the program over three to four years. At the time of this report, the project is completing many of its piloting activities.

Training and Education Needs
AVMPI staff is highly trained in audiovisual preservation. They report that training in audiovisual preservation would most benefit archivists and staff in units that have audiovisual collections but do not have staff trained in the specific preservation needs of these formats.

Challenges
The primary challenge for the program is to secure ongoing funding from SI for AVMPI to continue its work. Staff also notes that it is difficult for AVMPI digitization specialists to devote their full attention to digitizing because they must attend meetings and take on other projects. They note that it is not always possible to use their preferred vendors because of restrictions in the federal procurement process. They note that working in a complex organization requires a high amount of paperwork, tracking, and a series of approvals to move forward, which can cause projects to operate slowly. Changes in leadership in several roles have impacted the level of support that AVMPI has received, along with federal budget cuts and significant changes in policy, which all staff note contribute to AVMPI's precarity.

> "If AVMPI is abandoned, the audiovisual collections across all the Smithsonian will suffer catastrophic loss."
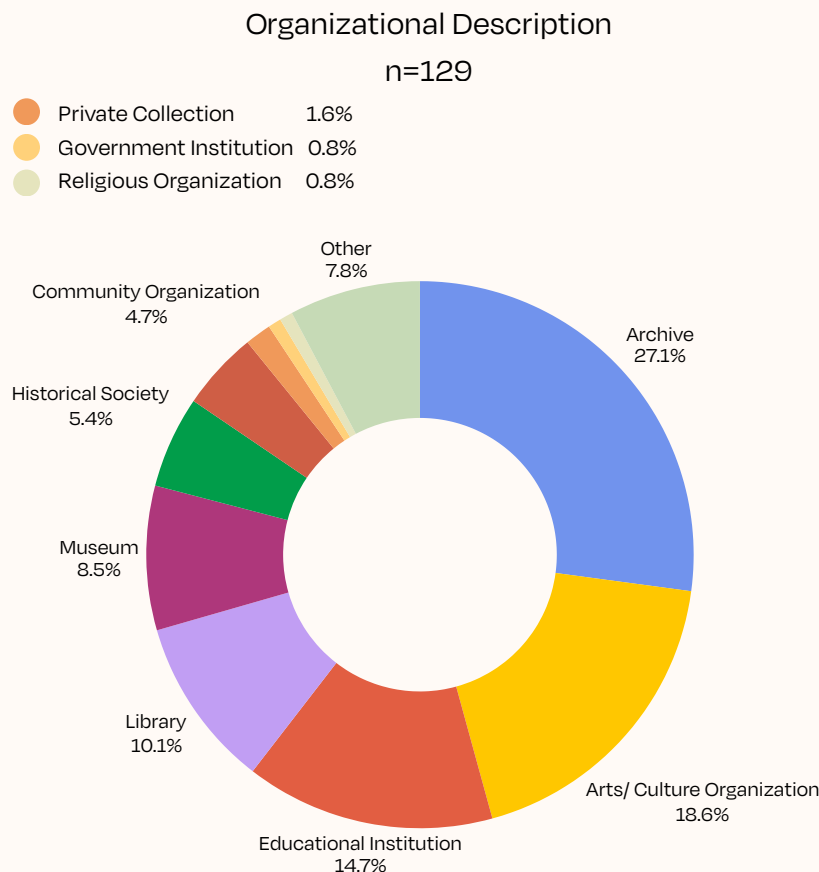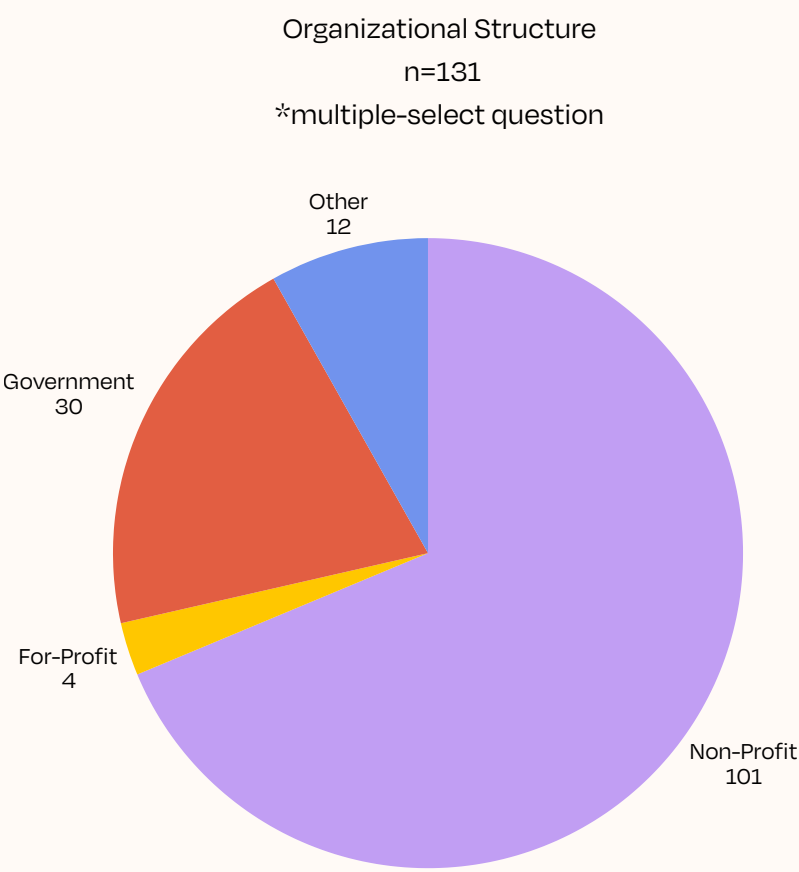
Next steps and goals
AVMPI has built a firm foundation for preservation onsite and using vendors and a strong educational component internally and externally, positioning it as a leader in the field using a combination of established and innovative responses to solve common problems. It has created a scalable workflow that can increase preservation and discovery of collections across the largest system of museums in the world. Its next goal is to demonstrably increase productivity and efficiency by making use of the streamlined processes it has carefully put in place.

Mapping the Magnetic Media Landscape

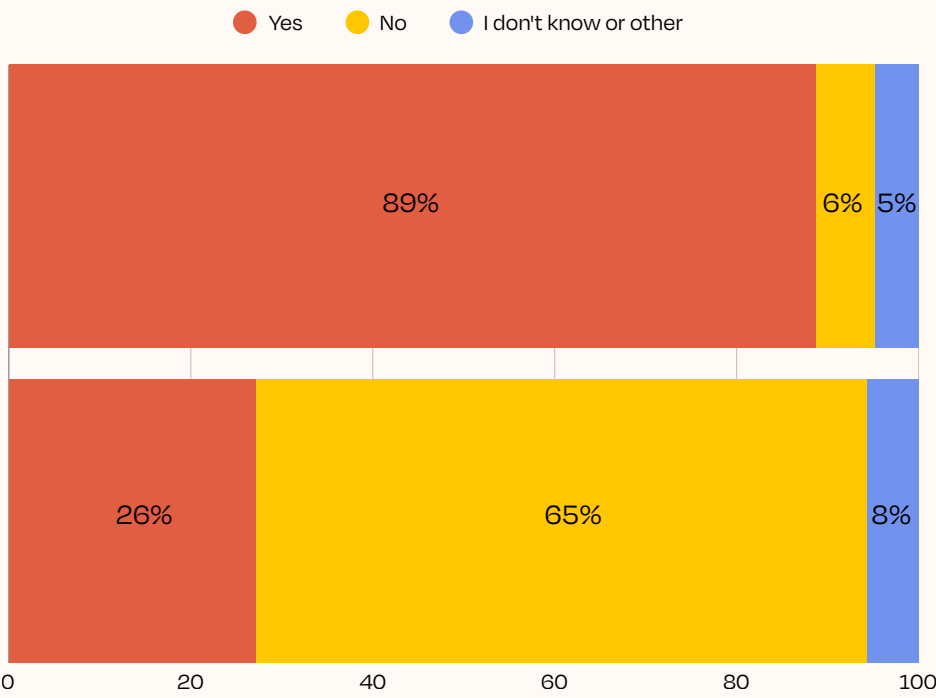## A national study on the state of magnetic media preservation

Sample Description:

- 3 site visits
- 23 in-depth interviews
- 131 survey responses

Organizational Structure
n=131
*multiple-select question

- Other 12
- Government 30
- For-Profit 4
- Non-Profit 101

Organizational Description
n=129

- Private Collection 1.6%
- Government Institution 0.8%
- Religious Organization 0.8%
- Other 7.8%
- Community Organization 4.7%
- Historical Society 5.4%
- Museum 8.5%
- Library 10.1%
- Educational Institution 14.7%
- Archive 27.1%
- Arts/ Culture Organization 18.6%

Legend: ● Yes ● No ● I don't know or other

Organizations with collections containing material by or about historically marginalized communities
n=125
89% | 6% | 5%

Organizations primarily serving historically marginalized communities or collections
n=129
26% | 65% | 8%

Respondents confident they can digitize their collections:

Legend: ● 1 (Extremely Confident) ● 2 ● 3 ● 4 ● 5 ● 6 (Not Confident at All)

- 6.5% — 8
- 10.5% — 13
- 16.9% — 21
- 19.4% — 24
- 17.7% — 22
- 29% — 36

n=124

Organizations actively collecting analog AV:
83% n=125

Organizations with in-house digitization set up:
63% n=131

Where training is most needed:

#1: Maintaining and storing digital files

#2: Digitizing analog audiovisual collections

#3: Providing access to digitized collections

n=118

Main Barriers to Digitization:

#1 Lack of staff time to dedicate to digitization (87%)

#2: Lack of funds (85%)

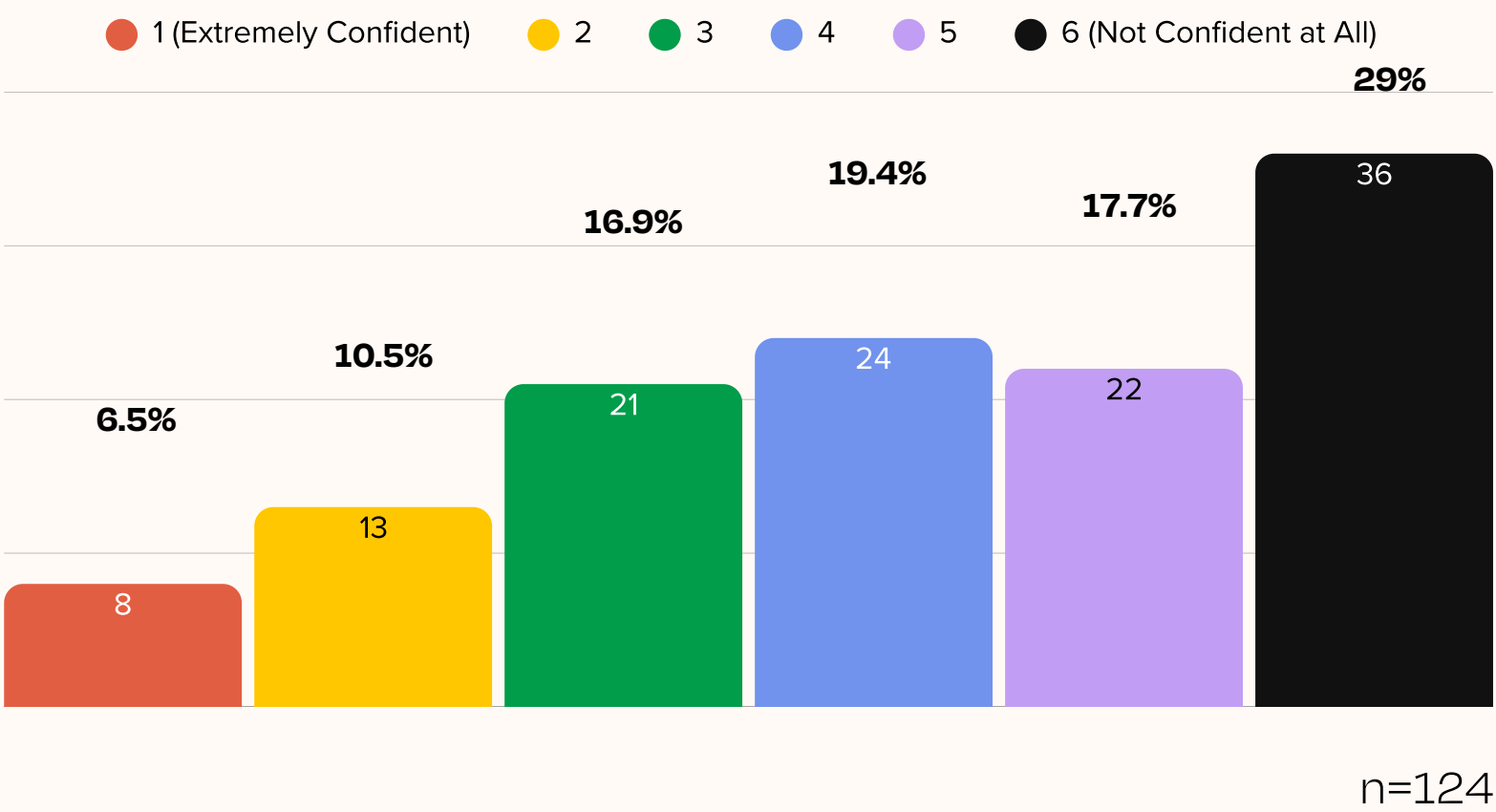**#3: Lack of equipment (53%)**

n=131

Significant Threats:

#1: Sticky shed syndrome (57%)

#2: Poor storage conditions (54%)

#3: Other decay (46%)

n=125

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