

## Audiovisual Assessment

DPOE-N workshop May 9, 2023

## Hello!



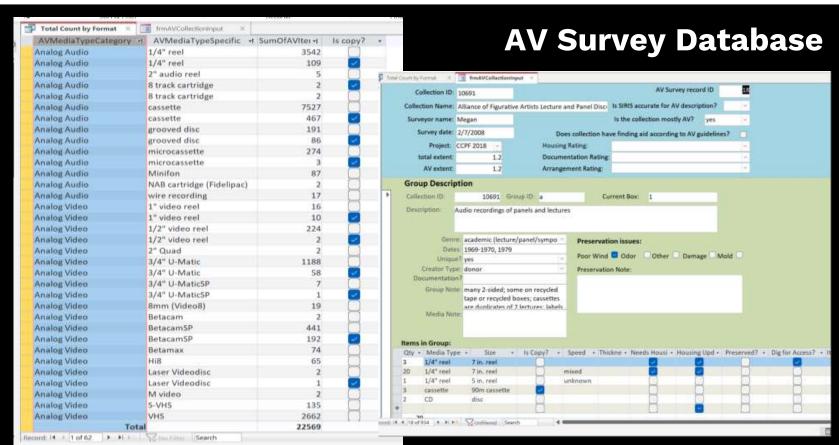
#### Megan McShea

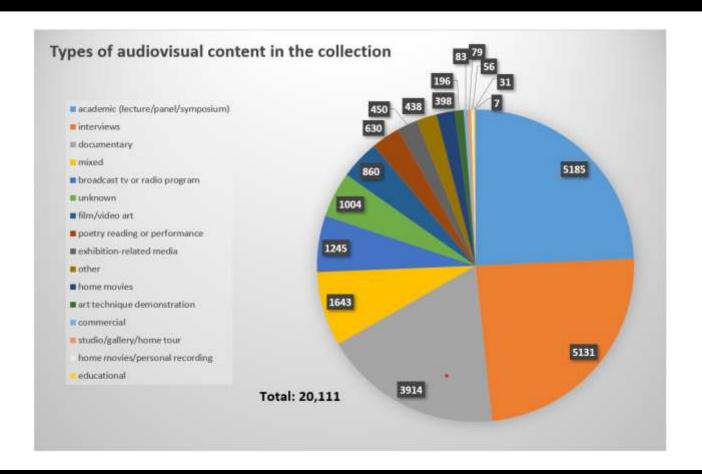
megan.mcshea@gmail.com

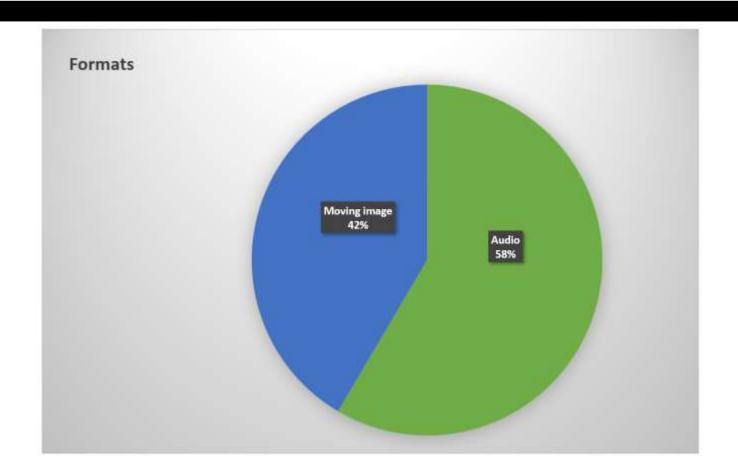
https://megan-mcshea.github.io/archivistbio.html

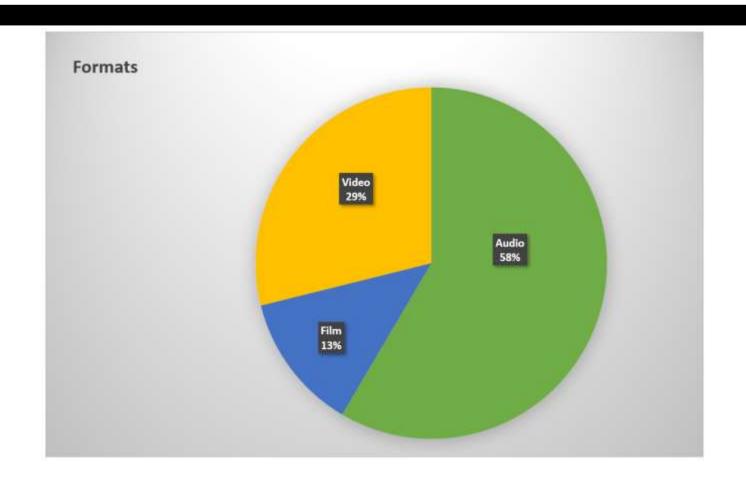
# 1.

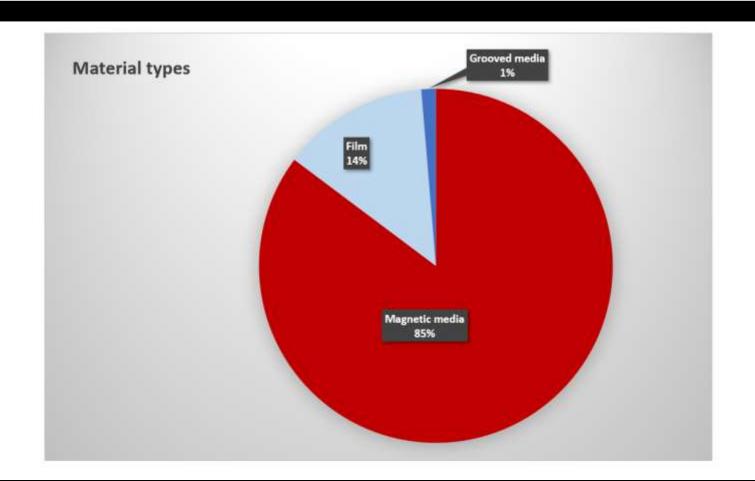
First, a story

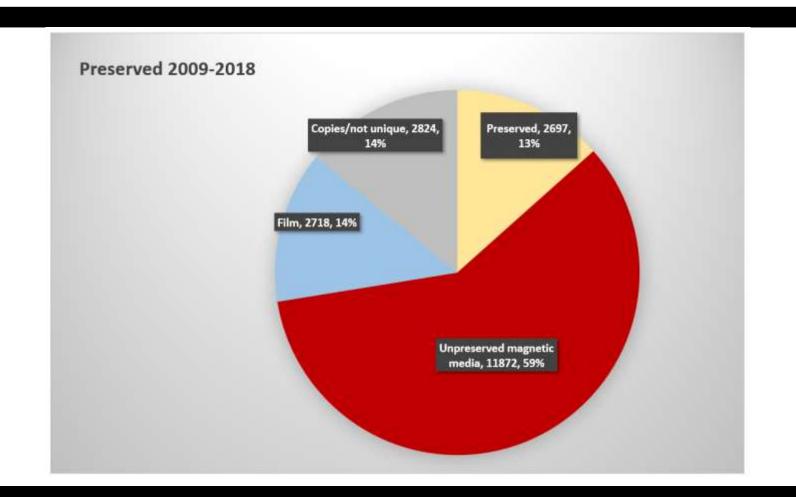


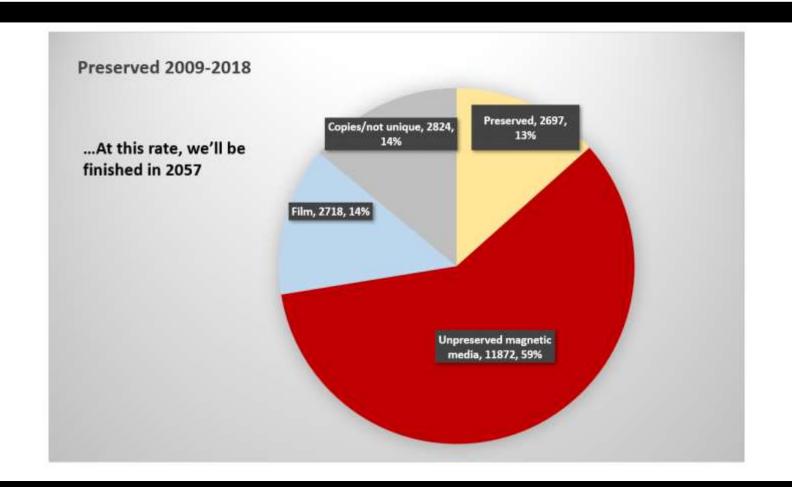


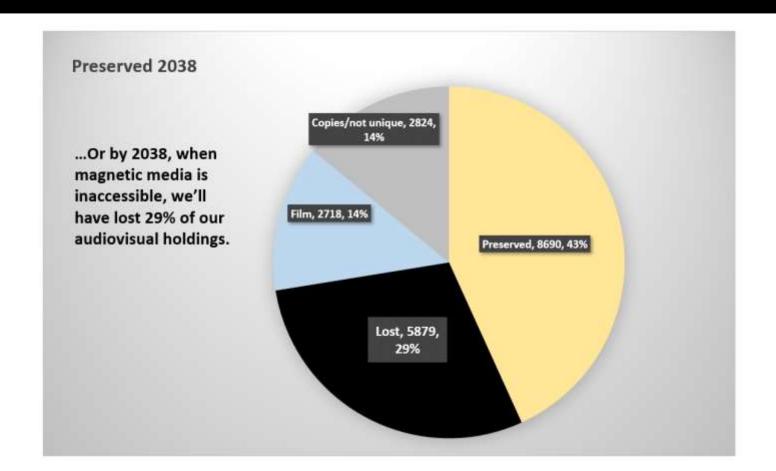


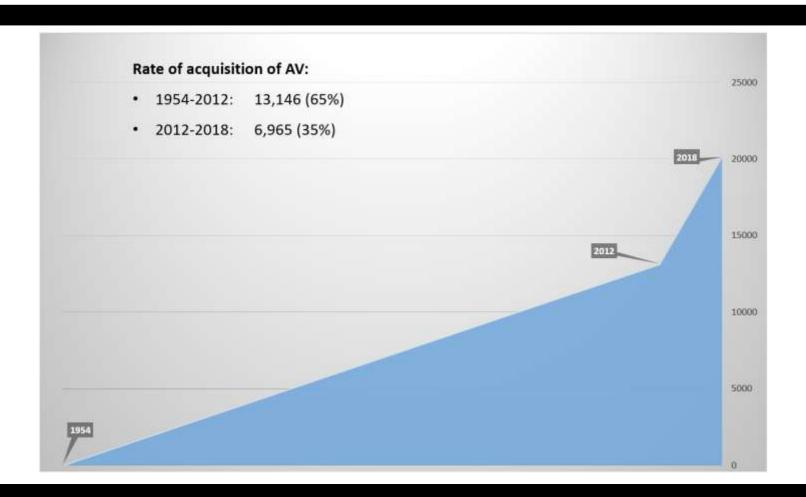












# Assessment is knowledge...

- formats
- risk factors
- uniqueness
- generation
- source
- content



# Assessment is readiness...



In an ever-changing landscape of

- Research interests
- Funding sources
- Available technologies
- Staffing
- Infrastructure

# ...at every stage of archival work



- Curation
- Accession
- Storage
- Processing
- Reference
- Preservation



The overall point is that all analog and physical digital formats are on the same obsolescence slope. Some have slid further down that slope than others, some will last far longer, but they are all headed in the same direction."

Mike Casey, "Why Media Preservation Can't Wait: The Gathering Storm" IASA journal no 44, January 2015



Either degradation or obsolescence is serious enough by itself. The combination of the two is a potent threat that severely undermines preservation efforts."

Mike Casey, "Why Media Preservation Can't Wait: The Gathering Storm" IASA journal no 44, January 2015

#### **Online resources**

#### Online resources

Links shared in "Introduction to AV Assessment," DPOE-N workshop presented by Megan McShea on 5/9/23

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Part 1: Recognizing formats

Part 2: Understanding copies

Part 3: Condition triage

Part 4: Data gathering tools and methods

Conclusion

https://github.com/megan-mcshea/megan-mcshea.github.io/blob/mm-pages/AVAssessment.md



## Today's agenda:

**Part 1: Recognizing Formats** 

Part 2: Understanding copies

**Part 3: Condition triage** 

Part 4: Data gathering tools and methods

# Part 1:



## **FORMATS**







## Film, Video, Audio







## **Film**



#### How to recognize film

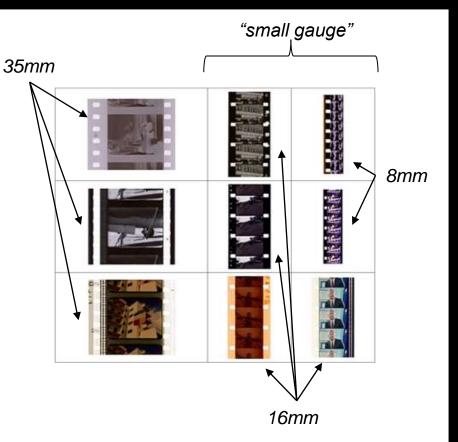
- Visible image
- Perforations

National Archives and Records
Administration, Preservation Division

## Film: gauges

#### Main identifying qualities of film

- Gauges
- Black & white vs color
- Negative vs positive
- Silent vs sound

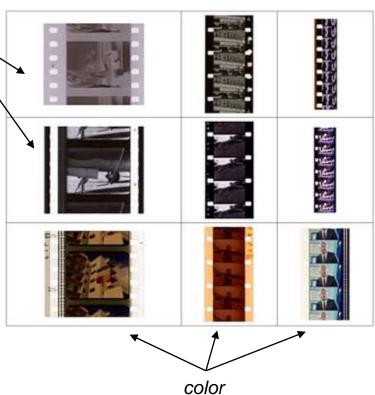


Black & white

## Film: color

#### Main identifying qualities of film

- Gauges
- Black & white vs color
- Negative vs positive
- Silent vs sound

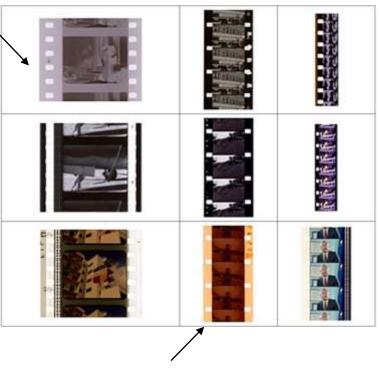


negative

## Film: negatives

#### Main identifying qualities of film

- Gauges
- Black & white vs color
- Negative vs positive (reversal)
- Silent vs sound



negative

## Film: sound

#### Main identifying qualities of film

- Gauges
- Negative vs positive
- Black & white vs color
- Silent vs sound

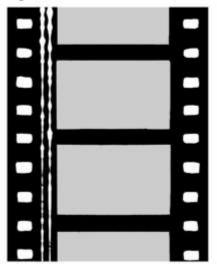


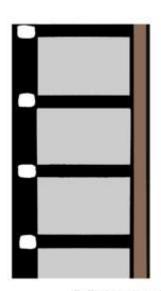
## Film: sound

Main identifying qualities of film

- Gauges
- Negative vs positive
- Black & white vs color
- Silent vs sound







Magnetic

### Film: sound

#### Main identifying qualities of film

- Gauges
- Negative vs positive
- Black & white vs color
- Silent vs sound



## Film: housing

#### Films wound on a

- Reel (left)
- Core (right)



# Film: containers

- Cans & boxes (top left)
- Shipping containers (right)
- Nothing (bottom left)









## **Video**

Video History 1970-1980s: 1-1980s:Betacam 2000s: HD inch tape is a and BetacamSP formats were popular are introduced introduced and mastering and used widely. widely adopted. 1950s-1970s: 2format. Umatic, Video8 and Hi8 File-based inch Quad tape the first video workflows are used in the was used for cassette, is consumer become popular broadcasting. introduced. market. as well. 1960s-1970s: 1/2-Late 1970s-1980s: VHS 1990s: Digital inch tape was and Betamax compete for Betacam is introduced and prevalence in the introduced and used helps make video consumer market. Laser widely in the recording discs were also professional market. introduced. DVDs are introduced and become popular in the consumer

National Archives and Records Administration, Preservation Division, Video guidance

<u>Texas Commission on</u>
<u>the Arts, 2004</u>
<u>Videotape guide</u>

#### **Video: carriers**

reels =



- Carrier type
- Material type
- Gauge
- Specific format
- Analog v digital





PSAP Collection ID guide

<u>Texas Commission on</u>
<u>the Arts, 2004</u>
<u>Videotape guide</u>

#### Video: material

- Carrier type
- Material type
- Gauge
- Specific format
- Analog v digital









Optical media



PSAP Collection ID guide

## Video: gauge

- Carrier type
- Material type
- Gauge reels
- Specific format
- Analog v digital







## Video: gauge

- Carrier type
- Material type
- Gauge cassettes
- Specific format
- Analog v digital



*U-matic = ¾" video* 



Betamax (1/2" video)



VHS (1/2" video)

# Video: specific format

#### Main identifying qualities of video

- Carrier type
- Material type
- Gauge cassettes
- Specific format
- Analog v digital



















PSAP Collection ID Guide, University of Illinois

# Video: digital tape

#### Main identifying qualities of video

- Carrier type
- Material type
- Gauge cassettes
- Specific format
- Analog v digital



PSAP Collection ID Guide, University of Illinois

# **Audio**



1870s-1880s: Early sound recording and playback technologies are developed.



1900-1910s: Discs begin to supplant cylinders and become an increasingly popular format for years to come.



1940s-1950s: Steel wire recordings are a popular format. Magnetic tape is introduced in the US and becomes popular because of its flexibility.



1980s-1990s: The Compact Disc (CD) is introduced. Digital Audio Tapes (DAT) enjoy a brief popularity through the mid-2000s. Analog audio cassettes still popular.





1880s-1890s:

Cylinder

recordings

become

commercially

available.











National Archives and Records Administration, Preservation Division, Audio guidance







1960s-1970s: Cassettes are introduced as an alternative to open-reel tape. Originally designed for voice dictation, cassettes become one of the more widely used formats for prerecorded music.







# **Audio: carriers**

#### Main identifying qualities of audio

- Carrier type
- Material type
- Analog v digital







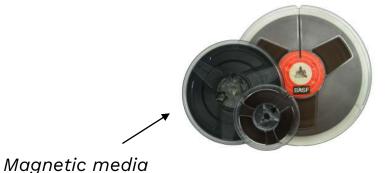


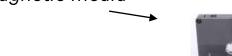


# **Audio: material**

#### Main identifying qualities of audio

- Carrier type
- Material type
- Analog v digital











# **Audio: material**

#### Main identifying qualities of audio

or wax (right)

- **Carrier type**
- Material type, grooved media
- **Analog v digital**



aluminum



Lacquer, aka "acetates" Shellac, aka "78s"





https://psap.library.illinois.edu/format-idguide/phonodisc



Plastic (left)



Vinyl, aka "LPs"

# **Audio: digital**

# analog ---

#### Main identifying qualities of audio

- Carrier type
- Material type
- Analog v digital



# **Audio**

#### Main identifying qualities of audio

- Carrier type
- Material type
- Analog v digital
- etc

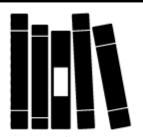






- PSAP Collection ID Guide, University of Illinois
- NARA Preservation Division AV format pages
- Know Your Carrier
- Museum of Obsolete Media



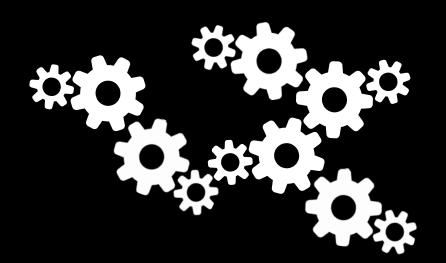


- <u>Videotape Identification and Assessment Guide</u> (Texas Commission on the Arts, 2004)
- <u>Field Audio Collection Evaluation Tool: Format Characteristics and</u>

  <u>Preservation Problems</u> (Mike Casey, Indiana University, 2007)
- <u>The Film Preservation Guide, The Basics for Archives, Libraries, and Museums</u> (NFPF, 2004)

# **Part 1: Case Studies**

# Part 2: COPIES



- 1. Non-commercial, unpublished recordings
- 2. Commercial distribution copy
- 3. Broadcaster-produced recording
- 4. Off-air recording (listener-produced)
- 5. Format migration copy
- 6. Sharing copy
- 7. Media production elements

### "Unique"

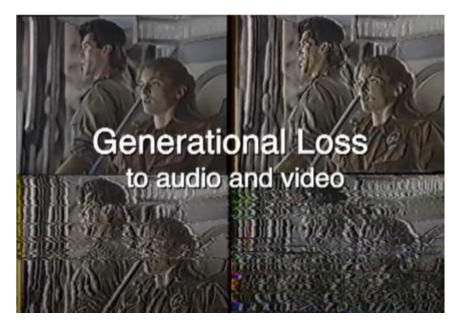
Content does not exist elsewhere

## "Original"

the object on which the recording was created

#### "Generation"

- •1st generation = original
- 2<sup>nd</sup> gen = copy made from 1<sup>st</sup> gen
- 3<sup>rd</sup> gen = copy made from 2<sup>nd</sup> gen
- etc.



**Generation Loss THE MOVIE (BAVC)** 

#### "Generation"

- •1st generation = original
- 2<sup>nd</sup> gen = copy made from 1<sup>st</sup> gen
- 3<sup>rd</sup> gen = copy made from 2<sup>nd</sup> gen
- etc

#### "Master"

- Highest quality copy of edited work
- Submaster = a copy of the master
- Dub master= copy used for making more copies
- Preservation master = highest quality digital copy of any archival AV (unrelated to production)

- 1. Non-commercial, unpublished recordings
- 2. Commercial distribution copy
- 3. Broadcaster-produced recording
- 4. Off-air recording (listener-produced)
- 5. Sharing copy
- 6. Format migration copy
- 7. Media production elements

- 1. Non-commercial, unpublished recordings
  - Often made by an individual or ad hoc group
  - □ Can be personal or work-related
  - □ Often only used by creator

Examples: home movies, interviews, documentation of events or research

#### 1. Non-commercial, unpublished recordings

#### Related documentation:

- o Projects: lists, transcripts, logs, notes
- o Personal: letters, diaries, photographs, programs

#### Format and appearance:

- o Consumer formats: cassette, microcassette, small audio reels, Hi8, MiniDV
- o Labels often handwritten or printed on consumer devices

#### **Uniqueness**:

- o Very likely to be unique
- o Often never copied, used in original form







NOT SUITABLE FOR MAILING WITHOUT OVERWRAP OR LABEL

Seymoustoner name iptons
193 & Grand Concourse

Brown nyc startery

K459

2. Distribution Copies

Mass-produced copies for end users

#### 2. Distribution copies

#### Related documentation:

o Typically well-labeled

#### Format and appearance:

- o Look for professionally printed packaging/labeling
- o Consumer formats: grooved discs, audio reels, audio cassettes, 8 track audio cartridges, VHS, Betamax

#### **Uniqueness**:

- o Unlikely to be unique, but can be rare
- o Use WorldCat to evaluate rarity







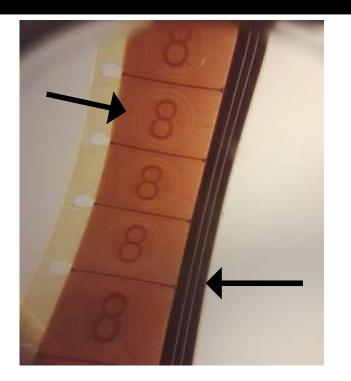


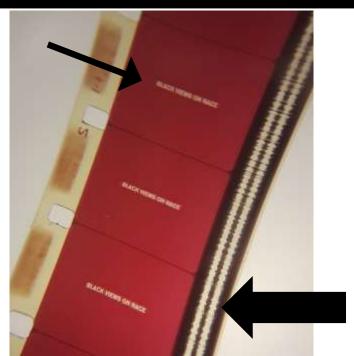


https://psap.library.illinois.edu/format-id-guide/film#film16mm

#### Format and appearance (film)

shipping containers are a common visual clue that the film is a distribution copy





#### Format and appearance (film)

Title frames, optical soundtracks, and countdown leader are visual clues that a film is a distribution copy

3. Broadcaster-produced recordings

TV or radio program created by the broadcast station

#### 3. Broadcaster-produced recordings

#### Related documentation:

o labels, transcripts, tear sheets

#### Format and appearance:

- o Radio: transcription discs and 1/4" reels
- o Television: kinescope films, 2" quad, 1" reel, U-matic, VHS
- o Often labeled with station call numbers

#### **Uniqueness:**

o May be unique, or may not



4. Off-air recordings (listener-produced)

TV or radio program recorded by the viewer/listener

4. Off-air recordings (listener-produced)

#### Related documentation:

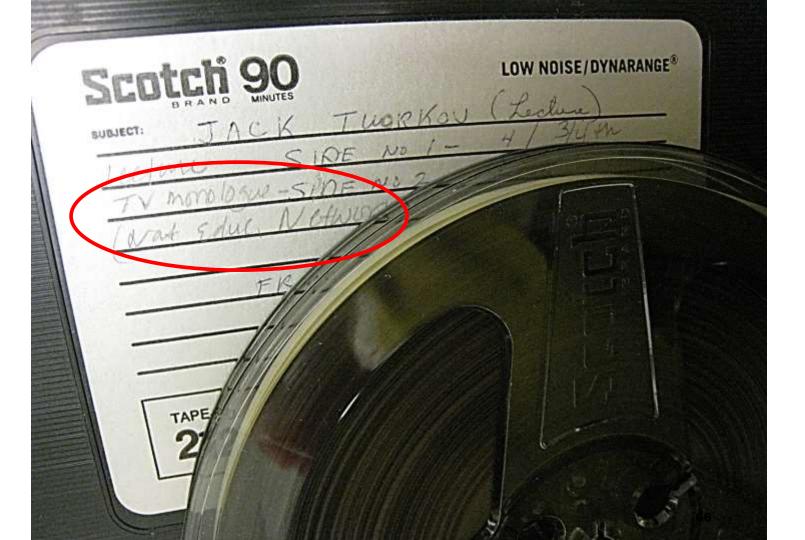
o Handwritten labels, not much else

#### Format and appearance:

- o Consumer formats: cassettes, 1/4" reels, VHS
- o Poor quality from amateur recording

#### **Uniqueness:**

o May be unique, or may not





HAMROCK

1/2 MIL. MYLAR® 1/4 IN. x 1200 FT.

03

#### 5. Format migration copies

Copies made by owner of obsolete media to newer format; could be any kind of content, or

Copies made by your library or archives in previous years for preservation or access

#### 5. Format migration copies

#### Related documentation:

o often none apart from that associated with original media

#### Format and appearance:

- Look for content that pre-dates format type
- o Exist in almost any format, but typically consumer formats like VHS, cassette, CD, DVD

#### **Uniqueness:**

o might be unique if original not found

#### 5. Format migration copies

#### When to keep? When to discard? Which to digitize?

- ✓ Can still be useful even if they're in old formats
- ✓ Documentation of copying process can be useful
- ✓ Can be discarded if a more recent use copy
- ✓ Create new copies from original recording if possible



6. Shared copies

Copies made by creators of recordings to share the content

# Types of copies

#### 6. Shared copies

#### Related documentation:

o A note from a person sharing a recording to the recipient

#### Format and appearance:

- o Consumer formats most common: thumb drive, CD/DVD, audio reels, cassettes, VHS
- o Typewritten labels with production information

#### **Uniqueness:**

o Not unique by could be rare

3-10-17 Jon Shainer A. B.C. Dear Sir Please find enclosed on old tape wh may contain a small soction of Blue Hills. O 15 years ago we had close friends, Blue Hille addi who moved to N.Z. we recorded the spisodes ORPHEUS PRODUCTIONS daily when all tapes were full word sound them 16 PIECES over then book they'd come game times DUR: 14' 52" 525-NTSC message sometimes not. Written on this case is Blue Hills , find something, we it on any wo if no B.H.

# Types of copies

7. Media production collections

Media and documentation from the production of edited audiovisual works

# Types of copies

#### 7. Media production collections

#### Format and appearance:

o More volume and complexity than other kinds of media

#### **Related documentation:**

- o Different documentation for different stages of production
- o Often helpful to consult production documentation to understand content
- o Shot lists, camera logs, lab records, edit decision lists, production notes

#### **Uniqueness:**

- o Runs the gamut from camera original to multiple types of copies
- o Lots of copies! Some more valuable than others.

#### Stages of media production and their artifacts

Shooting	Unedited camera footage, Unedited sound recordings
Editing	Work print, Outtakes (for film), Rough Edits (for video)
Finishing	Artifacts of this stage of production often have technical names, such as "Fine Grain Master Positive," A+B Roll," etc. The copy from which distribution copies are made could also be called "Dub Master" or "Archival Master." There can be multiple finished versions for different distribution outlets.
Distribution	Projection Print, Answer Print, Distribution Print (for film); for video, distribution copies are often in consumer formats.

<u>Guidelines for processing collections with AV material, Section 4.4: Arranging AV Production Materials</u> (Archives of American Art, 2019)





Schema

Resources Community

PBCore Generations vocabulary
<a href="http://pbcore.org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/">http://pbcore.org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/</a>

#### Vocabularies

pbcoreAssetType

@dateType

atitleType

@descriptionType

pbcoreRelationType

instantiationRelationType

creatorRole and contributorRole

publisherRole

instantiationPhysical: Audio

instantiationPhysical: Film

instantiationPhysical: Video

instantiationMediaType

InstantiationGenerations

#### instantiationGenerations Vocabulary

Usage: for instantiationGenerations

#### Terms (download)

#### A-B rolls:

Definition. Reels of film used as an intermediate step in the production process to create transitions, between to account for shots which will be dissolved in from other reels of film for the final productic used as a broad term for any such reels.

URL http://pbcore.org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/#ABRolls

#### Answer print:

Definition. The version of a film that is printed to film after color correction and with the sound proper URII http://pbcore-org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/#Answer

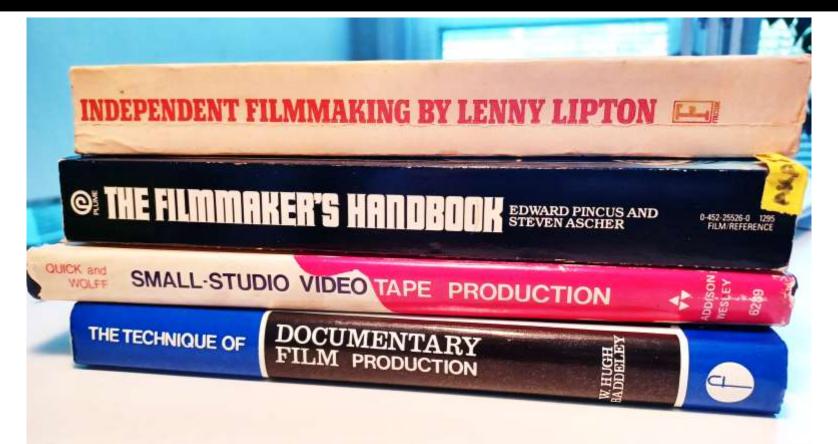
#### Composite:

Definition: Refers to the combination of several original rolls or elements in one print or negative — for and dialog.

LIRE http://pbcore.org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/#Compo-

#### Copy:

Definition: A general term for an item that has been reproduced or duplicated from an original instant URL http://pbcore.org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/#Copy



# The value of copies

- Consider any copy for which you don't have original the "archival original"
- If there is duplication, keep the most original and the most convenient format until the content is preserved.
- When preserving, always work from the most original.
- Discard any duplicates once the content is preserved.
- Duplicate distribution copies: keep 2
- If you're not sure which is the best copy, keep them all





- ARSC Guide to Audio Preservation: <a href="https://clir.wordpress.clir.org/wp-content/uploads/sites/6/pub164.pdf">https://clir.wordpress.clir.org/wp-content/uploads/sites/6/pub164.pdf</a> (see Maya Lerman's chapter on appraisal)
- National Film Preservation Foundation's Basic Film Preservation Guide:
   <u>https://www.filmpreservation.org/userfiles/image/PDFs/fpg\_4.pdf</u> (chapter on "the curatorial role")
- PBCore Generations Vocabulary: <a href="http://pbcore.org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/">http://pbcore.org/pbcore-controlled-vocabularies/instantiationgenerations-vocabulary/</a> (production term glossary)





- "Film Preservation 201: Exploring A&B Rolls with 'Jenny is a Good Thing'" NARA's Unwritten Record Blog (Heidi Holmstrom, 2016)
- "<u>The Sweetest Sound</u>" (on Nagra sync-sound technology), Smithsonian Collections Blog (Daisy Njoku, 2013)

# **Part 2: Case Studies**



# Part 3: CONDITION



# **Condition issues**

- 1. Inherent risk
- 2. Storage environment
- 3. Format obsolescence
- 4. Housing
- 5. Priority issues

# 1. Inherent risk

Betamax PCM1

Level 1 Highest Risk	Level 2 High Risk	Level 3 Moderate Risk	Level 4 Low Risk	Level 5 Lowest Risk		
1-inch audio tape 1-inch videotape open reel 12-inch audio tape 12-inch digital audio tape 12-inch videotape open reel 13-inch audio cartridge Nagra SN (SNN) [non-paper base or unknown base]	¼-inch audio tape  8mm video: Hi8, Digital-8, Video8  Betamax  Film: 70mm, 35mm, 16mm, 8mm, Super-8mm (acetate or polyester base)  Film Strip  Grooved audio disc (base	8-Track audio cassette Audio cylinder Betacam Digital (Digibeta) Betacam SP, Betacam Compact audio cassette Grooved audio disc (shellac) Laser Videodisc	Grooved audio disc (pressed disc; vinyl, etc.) HD Cam	Film: 35mm, 16mm (new polyester preservation materials)		
/4-inch audio tape, paper pase 2-inch audio tape 2-inch videotape open reel	unknown)  Microcassette, Minicassette  Minifon cartridge  VHS, S-VHS, VHS-C		Ins Au	Source: <u>Smithsonian Pan-</u> Institutional Survey of Audiovisual Collections, Final Report (2017)		
%-inch videotape: U-matic, U-matic S, U-matic SP ADAT	Videodisc Videodisc				87	

# 1. Inherent risk

D4 D0 D0 D5

D9 / Digital S	Level 1	Level 2	Level 3	Level 4	Level 5
	Highest Risk	High Risk	Moderate Risk	Low Risk	Lowest Risk
Dictabelt Digital Linear Tape DTRS / DA-88 / DARS (Hi-8 multitrack audio) DVCAM DVCPRO Echo-matic cartridge Film: nitrate base or 28mm Full coat magnetic audio: 16mm, 35mm Grooved audio disc (lacquered, aluminum, glass) MII MiniDV NAB cartridge U-matic 1600; 1620; 1630 Video Floppy Disk Wire Recording	1-inch audio tape 1-inch videotape open reel 1-inch audio tape 1-inch digital audio tape 1-inch digital audio tape 1-inch videotape open reel 1-inch audio cartridge Nagra SN (SNN) [non-paper base or unknown base] 1-inch audio tape, paper base 2-inch audio tape 2-inch videotape open reel 1-inch videotape: U-matic, U-matic S, U-matic SP ADAT Betamax PCM1	1/4-inch audio tape  8mm video: Hi8, Digital-8, Video8  Betamax  Film: 70mm, 35mm, 16mm, 8mm, Super-8mm (acetate or polyester base)  Film Strip  Grooved audio disc (base unknown)  Microcassette, Minicassette  Minifon cartridge  VHS, S-VHS, VHS-C  Videodisc	8-Track audio cassette Audio cylinder Betacam Digital (Digibeta) Betacam SP, Betacam Compact audio cassette Grooved audio disc (shellac) Laser Videodisc	Grooved audio disc (pressed disc; vinyl, etc.) HD Cam	Film: 35mm, 16mm (new polyester preservation materials)

#### 2. Environment

TABLE 1.2 Storage Temperature and Humidity Summary

	10						Film				
Storage Conditions		Magnetic Tape				CD,		Acetate		Polyester	
		Acetate	Polyester	Disc	Cylinder	The second secon	Nitrate	Nitrate B&W	Color	B&W	Color
Room	60°F-74°F 30%-50% RH	No	No	Fair	Fair	Fair	No	No	No	Fair	No
Cool	46°F-60°F 30%-50% RH	Fair	Good	Very Good	Very Good	Good	No	No	No	Good	No
Cold	32°F-46°F 30%-50% RH	Good	Fair	Good	Good	Good	Good	Good	Good	Very Good	Good
Subzero	-4°F-32°F 30%-50% RH	No	No	No	No	No	Very Good	Very Good	Very Good	Very Good	Very Good

Source: Fundamentals of AV Preservation (NEDCC, 2022)

#### 2. Environment

What can you do?

- Document storage environments
- Document formats of collection content
- Document observable condition issues
- If you have better storage, use it
- If you don't, use your collection documentation to advocate for preservation resources

#### 3. Format obsolescence

- ☐ Legal definition: when the equipment to play a format is no longer manufactured
- ☐ Practically speaking, many factors contribute:
  - End of manufacturing
  - End of availability in the commercial marketplace
  - End of bench technician expertise
  - End of bench technician tools
  - End of calibration and alignment tapes
  - End of parts and supplies
  - End of availability in the used marketplace
  - End of playback expertise

from

Mike Casey, "Why

<u>Media Preservation</u>

<u>Can't Wait: The</u>

<u>Gathering Storm"</u>

- ☐ Storage climate more effective at extending the life of the original media than housing
- Extending the life of the original media is most effective with film and grooved media
- Reformatting necessary to preserve magnetic media

- Some formats benefit more from extended life:
  - film cold or frozen storage, good wind, vented inert plastic cans
  - grooved disks stable humidity, good housing
- When old housing is contributing to deterioration or damage
- When there's no original housing





- Nitrate film
- Vinegar syndrome
- Mold
- Lacquer disc delamination
- Sticky shed syndrome

Nitrate film

Images from
https://psap.librar
y.illinois.edu/collec
tion-id-guide/film





Nitrate film

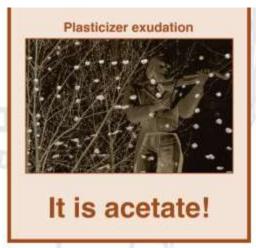
Filmcare.org

<u>Nitrate vs Acetate</u>

deterioration

What to do about nitrate: see the AMIA Nitrate Committee Nitrate identification and handling guide









Vinegar syndrome

1: Measure it:
Image Permanence

Institute: Using A-D Strips

**USER'S GUIDE** 



2. Freeze it: <u>filmforever.org</u>



Vinegar syndrome = acetate deterioration







Mold



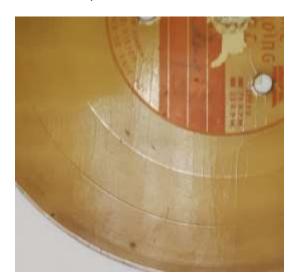




<u>A Guide to Approaching Audiovisual Digitization for Artists and Arts and Culture Organizations</u> (video, BAVC, ca. 2018)

Delamination of lacquer discs

<u>Audio</u>
<u>Preservation</u>
<u>with IRENE</u>
(NEDCC.org)





#### Sticky shed syndrome

- Not visible
- Sometimes smells waxy or astringent

<u>Magnetic Tape Binder Breakdown</u> (PSAP)

<u>Baking and transferring audio tapes</u> (Electronic Audio YouTube channel, 2019)

**Degrading Tapes** (Richard Hess, 2021)



<u>A Guide to Approaching Audiovisual Digitization for Artists and Arts and Culture Organizations</u> (video, BAVC, ca. 2018)

#### Other visible issues

Scary looking things that require treatment but can usually



# **Condition triage**

#### What Can Collection Holders Do Immediately?

The process of digitizing and preserving audiovisual media is complex and consumes resources, time, and labor. We understand that individuals or organizations that are under-resourced may not be able to undertake an initiative to completely digitize their entire collections. However, a well-planned roadmap towards digitization can help guide the allocation of funds and resources when they become available. With this understanding, we'd like to present a list of what collection holders can do immediately, by order of priority:

- Inspect materials for mold contamination, placing any potentially contaminated materials in quarantine.
- Inventory and describe all materials using the tools that best suit your collection.
- Use the collection inventory to define prioritization and selection policies.
- Develop use cases for file-based media assets, and select target digital formats that meet these needs.
- Consider options for long-term digital storage and purchase the necessary hardware or services.
- Develop a long-term preservation plan that is congruent with your digital file formats and storage platforms.
- Find a digitization vendor that can meet your desired specifications and needs.

Preservation is not an action that can be performed once and completed, but rather a collection of tasks and policies that must be regularly enacted upon materials to keep them stable and accessible. BAVC hopes that with the sharing of information and best practices in this paper, that individuals and organizations will have the capacity to build strong preservation practices, environments, and long-term commitment to support the preservation of their collections.



# **Condition triage**

- 1. Inherent risk
- 2. Storage environment
- 3. Format obsolescence
- 4. Housing
- 5. Priority issues

# Part 3 resources:



#### Film

- Film Forever's Home Film Preservation Guide
- "Learn About Film", The Image Permanence Institute's filmcare.org

#### Audio

- ARSC Guide to Audio Preservation, Chapter 4, "Care and Maintenance"
- <u>FACET Downloads</u>: Format Characteristics and Preservation Problems

#### Video

- Videotape identification and preservation, Texas Commission on the Arts, 2004
- A Guide to Approaching Audiovisual Digitization for Artists and Arts and Culture Organizations (video, BAVC, ca. 2018)

#### Optical discs

- <u>An Optical Media Preservation Strategy for NYU Fales Library (Annie Schweikert, 2018)</u> *Everything*
- Handling and Storage of AV Carriers, IASA Technical Committee, 2014



# **Part 3: Case Studies**

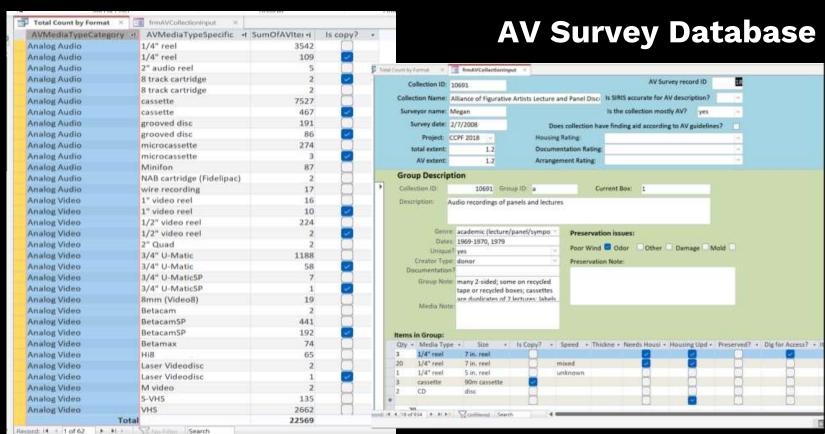
# Part 4: TOOLS & METHODS

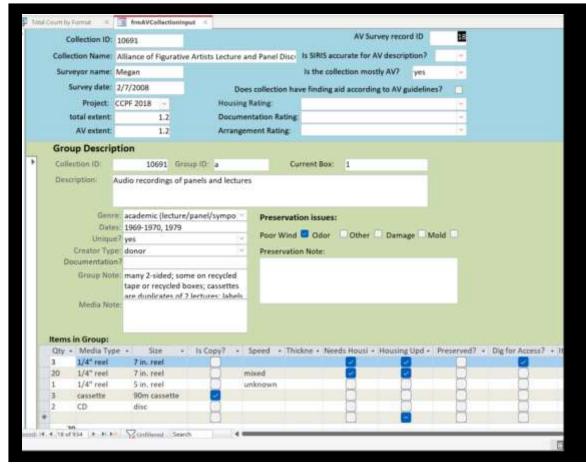




# Part 4 topics

- Available tools and their pros and cons
- Surveys vs inspections
- Things to consider





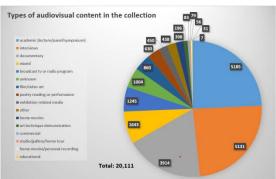
# AV Survey Database

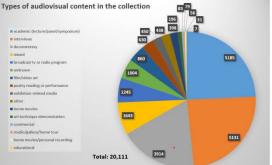
#### Method:

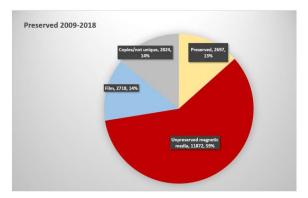
- Find AV in a collection
- Enter collection-level information (blue)
- Identify logical groupings of AV in the collection
- 4. Enter group-level information (green)
- 5. Sort out formats, sizes, and copies
- 6. Enter inventory in item table (bottom)
- 7. Repeat 4-5 for each group in collection

# **AV Survey Database:** things that worked

- Very easy to compile data across collections
- Could drill down to what needed work most urgently
- Customized sets of collections for specific opportunities











# **AV Survey Database:** lessons learned

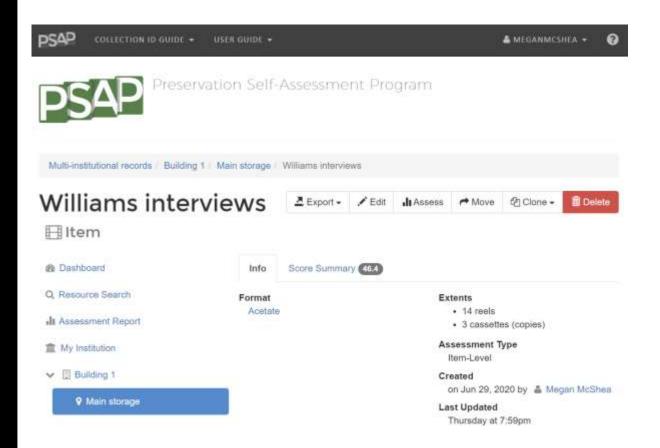
- High maintenance of siloed data in DIY tool
- Couldn't share or migrate data easily
- Group-level data had limitations



# **AV Survey Database:** lessons learned

- High maintenance of siloed data in DIY tool
- Couldn't share or migrate data easily
- Group-level data had limitations

Megan's old AV Survey database (blank)
<a href="https://github.com/megan-mcshea/megan-mcshea/megan-mcshea/github.io/blob/mm-pages/AVAssessment.md">https://github.com/megan-mcshea/megan-mcshea/github.io/blob/mm-pages/AVAssessment.md</a>

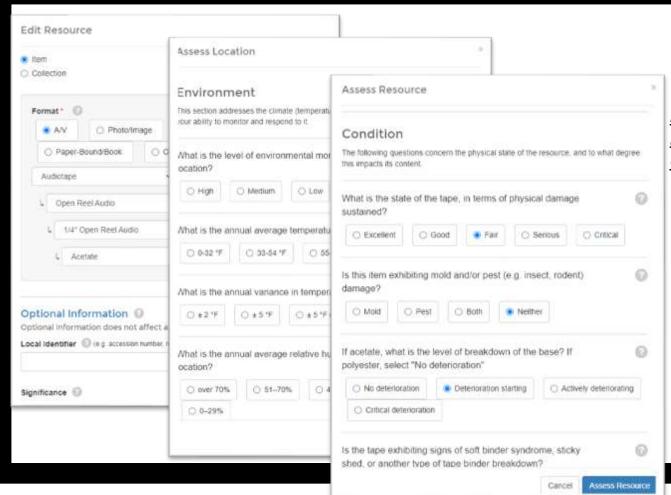


## **PSAP**

<u>https://psap.library.</u> <u>illinois.edu/dashbo</u> <u>ard</u>

#### Pros:

- Linked to PSAP reference info
- Tracks format risk & storage conditions
- Not just for AV
- Scoring system
- Data exports!
- Web-based

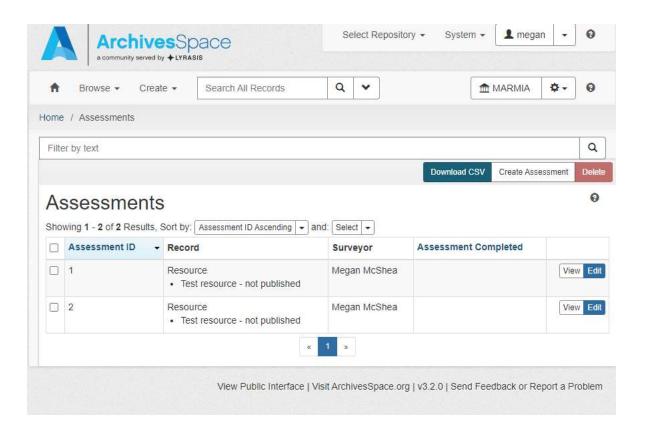


## **PSAP**

https://psap.library. illinois.edu/dashbo ard

#### Cons:

- Lots of clicks at item level (cloning helps)
- Allows
   collection level data
   entry but not
   assessment



# **Aspace**

#### Pros:

- Integrated with CMS
- Assessment records work at any level of description

#### Assessment Information

General Assessment Note pertains to AV in collection only

		No Rating	1	2	3	4	5	
Documentation Quality	Θ	0	0	0	•	0	0	Add Note
Housing Quality	Θ	0	0	0	0	•	0	Add Note
Intellectual Access (description)	Θ	0	•	0	0	0	0	Add Note
Interest	Θ	0	0	0	•	0	0	Add Note
Physical Access (arrangement)	Θ	0	•	0	0	0	0	Add Note
Physical Condition	Θ	0	0	0	•	0	0	Add Note
Reformatting Readiness	Θ	0	0	0	•	0	0	Add Note
Additional Rating(s) Manage the additional Ratings for this repository								

# **Aspace**

Detailed ratings system, sort of customizable

#### List of Material Types / Formats

Architectural		Glass	
Materials		Photographs	
Art Originals		Scrapbooks	П
Artifacts		Technical	П
Audio Materials		Drawings & Schematics	_
Biological		Textiles	
Specimens			
Botanical Specimens		Vellum & Parchment	
Computer Storage		Video Materials	<b>~</b>
Units		Other	
Film (negative, slide, or motion picture)	✓		
Additional Material	Types	s / Formats	
		es / Formats for this repository	
1/4" reels	<b>✓</b>	U-matic	<b>~</b>

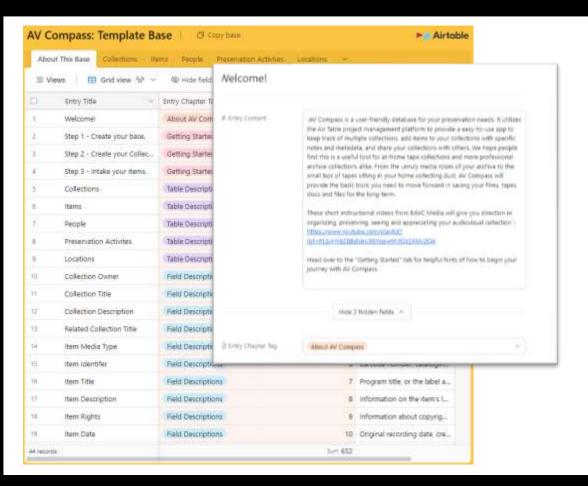
# **Aspace**

Very general, but you can add custom formats and conditions



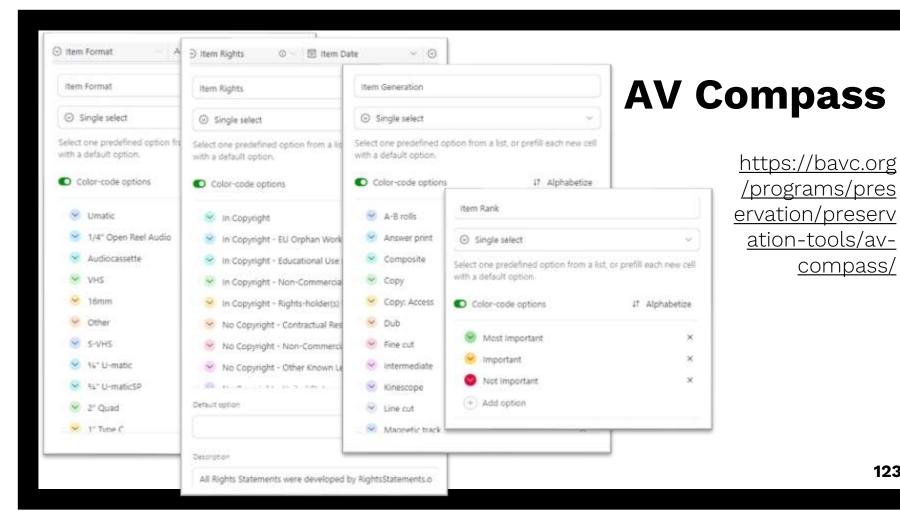
# **Aspace**

Lets you add a link to another data source



# **AV Compass**

https://bavc.org/ programs/preser vation/preservati on-tools/avcompass/



## **Community Archiving Workshop (CAW)**

#### Ħ

#### About CAW

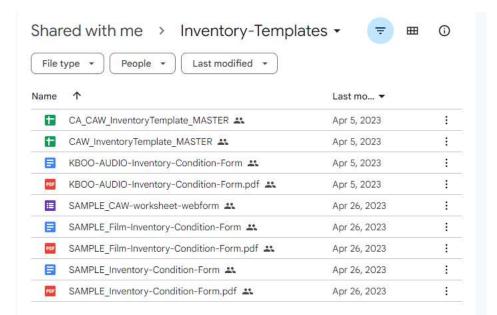
- · About CAW
- · How to Use this Website
- · Growth of the CAW Model
- CAW History
- Acknowledgements
- · Planning Organizations
  - Community Partner
- Organizations
- CAW Committee
- Members
- Sponsors
- · Want to organize a CAW?



#### Presentation during the Community Archiving Workshop at Three Dollar Bill Cinema in Seattle.

## **CAW**

<u>Webinars:</u>
<a href="https://tot.community">https://tot.community</a>
<a href="mailto:archiving.org/docume">archiving.org/docume</a>
<a href="mailto:ntation/">ntation/</a>



## **CAW**

Inventory forms and templates: https://communityarchiving.org/2023/04/05/inventory-inspection-templates/



## **CAW**

A	2	-6	0.	1	· · ·	- 6	H
	AV Type	Holding	Collection	Collection ID #	Series #	Box ID#	Unique ID#
Description of field (see cheat sheet! https://docs.goog! e.com/docsument/ d/1GuCUEA_kSsDq yqPPZRKIEtCmyoka SA3bpUJ_US/SqN4 /edit)	Film; Video; Audio	Sacramento Public Library Special Collections; West Sacramento Historical Society; Galt Historical Society	Sacramento Amateur Movie Makers Club records; Hughson, Jeff collection on Secramento music; Secramento Artifical Media Collection	Collection Number	Series Number: If processed as Artifical Media Collection, assign series as: Series 1 (Film); Series 2 (Video); Series 3 (Audio)	Box ID	Identifying Number. Format as CollectionID_AVType_see #
How to modify this field for your arg	This field helps you to filter and create lists of types of materials and is useful for advocacy and understanding the needs of your collection. Use a controlled vocabulary here.	Use a controlled vocabulary here:	Collection name, if processed as a collection. Refer to box label.	Collection number, if processed as a collection. Refer to box label.	Series number, if processed as a collection. Refer to box lobel or assign above as part of artificial collection.	Box number, as assigned by holding oranization or Box Table.	Use the system your org already uses. This is also an apportunity for you to develop a new numbering system if you need to.
Example	Film	Sacramento Fublic Library Special Collections	Sacramento Amateur Movie Makers Club	MC 13	Series 5	MC 13 Sacramento Amateur Movie Makers Club	MC19_FILM_0001

Inventory forms and templates:

https://communityarc
hiving.org/2023/04/05
/inventory-inspection-templates/

Inventory Template
Inventory Instructions

AV Type Creator(s)

Holding Contributor(s)
Organization Duration

Collection Capacity

Collection ID # Reel Diameter (Inches)

Series # Format

Box ID # Stock

Unique ID # Generation

Other IDs Color/B&W Extent Sound/Silent

Title Base Material Type

Description Housing

Label Info / Condition

Annotations NOTES

Record Date Date inventoried

Production Inventoried By

Production Inventoried By Date

CAW

<u>Inventory forms and</u>

<u>templates:</u> https://communityarc

hiving.org/2023/04/05

<u>/inventory-inspection-</u>

templates/

<u>Inventory Template</u>

<u>Inventory Instructions</u>



Collections What We Do - Smithsonian History -

Please read Smithsonian Libraries and Archives' Statement on Harmful Content.

## **Audiovisual Preservation Readiness** Assessment

About

Mission

Contact Us

Interns/Fellows/Volunteers

Strategic Projects

Audiovisual Preservation Readiness Assessment

Smithsonian Digital Preservation Working Group

Field Book Project

### Background

From December 2017 to May 2019, eleven Smithsonian units participated in an Audiovisual Preservation Readiness Assessment (AVPRA), building off of the 2016 Pan-Institutional Audiovisual Collections Survey. The purpose of AVPRA was to 1) complete and update the 2016 inventory of analog audiovisual holdings at the Smithsonian Institution; 2) develop and implement a method to prioritize analog audiovisual collections for preservation; 3) evaluate the Institution's current audiovisual preservation practices; and 4) determine the risk for permanent collection loss at current preservation rates and establish preservation scenarios which can mitigate that loss.

## **AVPRAPPS**

https://siarchives.si.ed u/about/audiovisualpreservationreadiness-assessment Unit

**Building** 

Room

Date of Import / count

**Collection ID / Accession Number** 

Box#

Title / Description

**Item Count** 

**Format** 

Medium

**Base Substrate / Material Type** 

Diameter (inches)

**Estimated Footage Each** 

**Estimated Footage Total** 

**Playback Speed** 

**Estimated Duration Each** 

**Estimated Duration Total** 

**Visible Media Condition** 

Fungus or fungus-like substance

Storage temperature F

Storage RH

**AD Strip Test Date** 

**AD Strip Test Result** 

Notes

## **AVPRAPPS**

https://siarchives.si.ed u/about/audiovisualpreservationreadiness-assessment

129

#### Known Extreme Environment

- Assets are stored in an environment with no controlled temperature and/or relative humidity.
   OR
- Assets are stored in any other extreme condition (to be determined by staff and CAC), such as wrapped in
  plastic or mixed with known moldy collections.

#### Level 4 Visible Media Condition

 This accounts for physical decay beyond expected format degradation, including mold, broken carriers, extreme decay, A-D test strip result, etc.

	Format	Rese Substrate / Material Type	Visible Media Condition	Fungus	Storage Temper ature ("F)	Storage Humidit y (N)	A-O Strip Test	A-O Strip Test Result	AVPRAPPS adjusted score	AVPRAPPS baseline score	Notes
	Film; 16mm	acetate	5 - severe visible damage (likely to require specialist intervention)	N	60	50		1	1	2	Audietapes
	Film: 35mm	acetate	5 - severe visible damage (likely to require specialist intervention)	N	60	50			1	2	Audiotapes
Т	Compact audio cassette	polyemer	5 - severe visible damage (likely to require specialist intervention)	N	50	30			1	3	
	Grooved audio disc	metal with cellulose nitrate	4 - significant visible damage	N	50	30		1	1	1	
	Film: 36mm	acetate	4 - significant visible damage	N	50	30			_	2	poor wind e
	1/4 inch audio tape	polyester	4 - significant visible damage	N	50	30			1	2	poor pack, p
	1/4 Inch audio tape	acetate	4 - significant visible damage	N	30	30			1	2	poor wind,
	Film: 16mm	acetate	4 - significant visible demage	N	60	50			1	2	Audiotapes
	Film: 16mm	acetate	4 - significant visible demage	N	60	50			1	2	Audiotapes
	Film: 16mm	acetate	4 - significant visible damage	N	60	50	-	7	1	2	Audiotapes;
	Audio cylinder	composite	4 - significant visible damage	17.1	60	50:			1	3	Audiotapes

Figure 4. The AVPRAPPS baseline score is adjusted to reflect additional data informing prioritization, including storage condition and narrative data from interviews.

## **AVPRAPPS**

https://siarchives.si.ed u/about/audiovisualpreservationreadiness-assessment

#### AUDIOVISUAL PRESERVATION READINESS ASSESSMENT



#### **COST OF PRESERVATION**

per magnetic media anel

COST (average)	\$137	COST (average)	\$231	
STAFF TIME (average, in hours)	3	STAFF TIME (average, in hours)	3.5	

#### BASED ON CURRENT PRACTICES...



units face total loss

### WHAT CAN BE DONE?

WITH 15-YEAR PLAN FOR TOTAL PRESERVATION

IN HOUSE

16,957

assets preserved annually (25% by vandor, 75% in bonse).

52.991

hours to preserve annually (6,624 work days, 28 staff required)

\$40,823,625

total cost (over 15 years, includes staff and WITH A \$5 MILLION ONE-TIME BUDGET

32,783

assets preserved (25% by sendor, 75% in house)

101,055

hours to preserve (12,632 work days)

87.19

asset loss (of unpreserved assets)

# 394

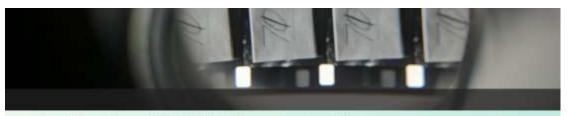
years to preserve all assets (current average rate = 485 assets preserved per year)

**IN 15 YEARS** 



## **AVPRAPPS**

https://siarchives.si.ed u/about/audiovisualpreservationreadiness-assessment



### Audiovisual Media Preservation Initiative

What We Do

Reference

Rights and Reproduction

Records Management

Preservation

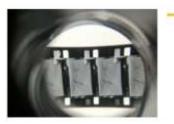
Digital Curation

Audiovisual Media Preservation Initiative

Goals

About Us.

The Audiovisual Media Preservation Initiative (AVMPI) is a centralized resource that supports the overall need for individual Smithsonian units to catalog, preserve, and provide access to our audiovisual collections.



#### Goals

At our current rate of preservation, the Smithsonian is facing an estimated total loss of 190,000 audiovasual assets by 2034, in order to stem the tide of irreparable loss, the initiative at flocusing on five main goals to enhance the publics access to the institution's audiovisual collections.

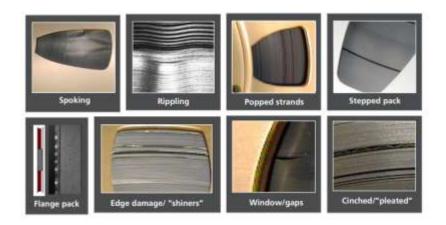
## **AVPRAPPS**

https://siarchives.si.edu/what-we-do/avmpi

# **Surveys vs inspections**



CAW Film inspection kit



Specs Brothers Magnetic Media Inspection white paper

# Data tools: things to consider

- public facing vs internal data
- Integrated tools vs standalone tools
- Use a sustainable application
- Make sure data is portable
- Write instructions



## Part 4 resources:

See Online Resources page for links:

- Megan's AV Survey database and documentation
- ArchivesSpace Assessment module videos
- PSAP dashboard
- AV Compass link at BAVC
- CAW documentation and resources
- Film and magnetic media inspection resources

# Part 4: Case Study



# What next?

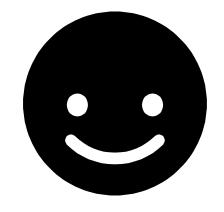
- Pragmatic Audiovisual Preservation (Ashley Blewer, Digital Preservation, 2020)
- CAW: All the kits
- XFR Collective, workflows section of resources page
- No Time To Wait symposium



Audio and video content may be lost if action is not taken now. In most cases, doing something with the resources available is better than doing nothing."

Media
Preservation
and
Digitization
Principles
(Mike Casey, 2022)





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