

# Digital Evolution: *Innovative Survival*

*Society of Southwest Archivists Annual Meeting*  
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## **JA Pryse**

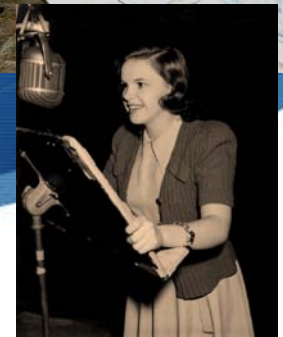
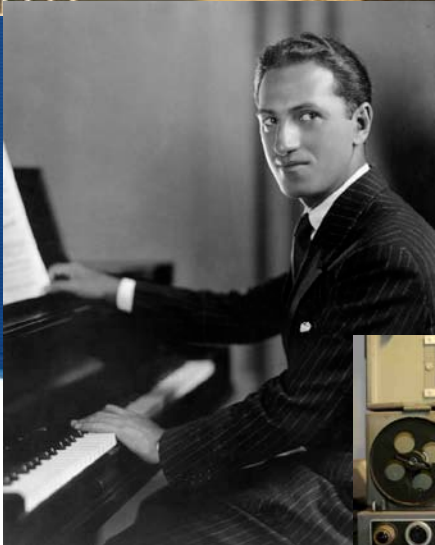
*Digital Archivist* | Oklahoma Historical Society, Oklahoma City, OK

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*Collections Manager* | Native American Languages Collection, Sam Noble Oklahoma Museum of Natural History, Norman, OK

*Audio Engineer* | Oklahoma Historical Society, Oklahoma City, OK





“While it may appear to be permanent on the surface, our national recorded heritage is one of the most endangered mediums.”

*Michael Feinstein,  
Library of Congress National Recording Preservation Board, 2013  
([www.loc.gov/today/pr/2013/files/SoundPreservationPlanQuotes.pdf](http://www.loc.gov/today/pr/2013/files/SoundPreservationPlanQuotes.pdf))*

“...Historic sound and video recordings nationwide continue to be lost or degraded. Researchers estimate more than half of the oldest recordings have already been lost.”

*Anne Davenport and Victoria Fleischer, reporting for PBSNewsHour: “Saving Recorded History”, May 7, 2013  
([pbs.org/newshour/art/blog](http://pbs.org/newshour/art/blog))*

“A web of interlocking issues currently threatens the long-term survival of our sound/video-recording history, from a lack of storage capacity...to rapidly changing technology...to preservation expertise...”

*News from the Library of Congress, February 13, 2013  
([www.loc.gov/today/pr/2013/13-014.html](http://www.loc.gov/today/pr/2013/13-014.html))*



# Overview

- About OHS
- Methodology
- Skills
- Economic factors of specialized handling
- Assessing archival collections staff

## At a glance: The Oklahoma Historical Society



- Oklahoma City-based agency that “has been collecting, preserving, and sharing the history of Oklahoma and its people since before statehood (1907).”
- Multiple historic locations across the state, with research division headquarters in Oklahoma History Center – a research facility and museum
- Eight units in the research division, including audio and video digitization centers

Oklahoma Historical Society. [www.okhistory.org](http://www.okhistory.org).

Photograph by Nicholas Wojcik, 2010.









# Methodology



- Recognize the need for archival media preservation and digital consciousness within archive, research, museum, library, and private collection settings, and to act on that
- Preserve the past while perpetuating future experiences with the original material
- Realize the vital role of skilled professionals in audio engineering and video production, and how their technical guidance
  - enhances the quality of the digital evolution
  - increases productivity through software, hardware, and technical management

# Skills

## Preservation Transfer Expertise: What's Needed

Casey, Mike. (2009). *Indiana University Bloomington media preservation survey report*.

IASA Technical Committee. (2005). *Standards, recommended practices and strategies - the safeguarding of the audio heritage: ethics, principles, and preservation strategy*, Dietrich Schuller, ed.

- Historical knowledge of various media formats, how they degrade/deteriorate, and techniques for physically restoring materials to guarantee optimal playback
- Management and maintenance of obsolete playback devices, analog-to-digital converters, and other elements of the “signal chain”
- Knowledge of properly handling and storing a wide and dynamic range of original materials/objects
- Highly developed listening abilities that enable appropriate decisions when restoring or manipulating media
- Knowledge of (inter)national standards and best practices for media preservation
- Commitment to applying preservation ethics in all aspects of technical work

# Skills

## Preservation Transfer Expertise: What It Can Bring To Your Archive

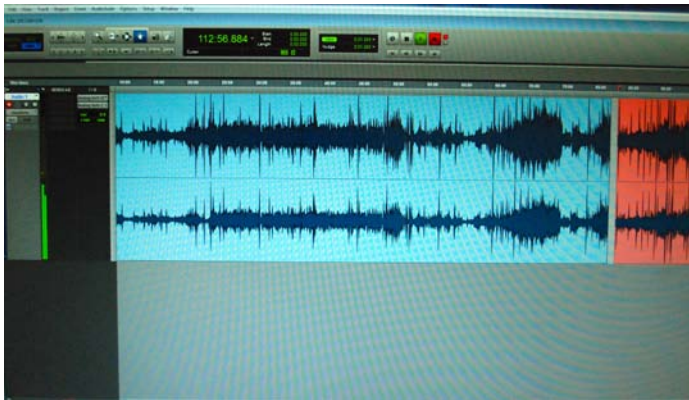
Casey, Mike. (2009). *Indiana University Bloomington media preservation survey report*.

- Developing institution-wide plans for preserving media
- Developing strategies, policies, and procedures for access and exhibitions
- Assessing the research value of media holdings
- Evaluating in depth the condition of materials/holdings and potential risk
- Gathering data of playback times of collections that are high priorities for receiving preservation treatment
- Developing grant proposals for preservation and access work
- Assisting researchers with access to holdings
- Assisting with the selection and preparation of collections for preservation treatment
- Evaluating which items may require outsourced preservation treatment
- Selecting and operating digital software

# Skills

## Selected A/V digitization software

- Audio digitization software
  - Avid Pro Tools 10
  - Amadeus Pro
  - GoldWave
  - Adobe Audition
  - Sony Sound Forge
- Video digitization software
  - Adobe Premier Pro CS6
  - Final Cut Pro
  - Avid Symphony
  - iMovie
  - AVS Video Editor



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# Skills

What about supervised, less-trained technicians?  
(ex. graduate students)

Casey, Mike and Bruce Gordon. (2007). *Sound directions: best practices for audio preservation*.  
(<http://www.dlib.indiana.edu/projects/sounddirections/bestpractices2007/>)

- General interest in the nature of the work, along with measureable technology, listening, and object/equipment handling skills
- Knowledge of standards and best practices
- Commitment to applying preservation ethics in all aspects of technical work
- Devise a plan for such technicians to “shadow” engineers in digitization projects from start to finish
- Encourage outlets for continuing education and life-long learning
  - Books and articles
  - Certification
  - Workshops
  - Conferences
  - Degree programs

# Skills



- Indiana University at Bloomington,  
Department of Information & Library Science,  
School of Informatics & Computing  
[lis.indiana.edu/degrees/mls](http://lis.indiana.edu/degrees/mls)
  - Audio Preservation
  - Audio-Visual Archives
- University of North Texas  
Department of Library & Information Sciences  
[lis.unt.edu](http://lis.unt.edu)
  - Digital Imaging for Information Professionals
  - Preservation in Special Collections
- University of Pittsburgh,  
School of Information Sciences  
[ischool.pitt.edu/lis/degrees/archives](http://ischool.pitt.edu/lis/degrees/archives)
  - Preservation Management (required)
  - Preserving Culture (required)
  - Moving Image Archives
- Long Island University  
Palmer School of Information Science  
[liu.edu/palmer](http://liu.edu/palmer)
  - Audio Preservation
  - Preservation of Film & Media Collections
  - Post-Master's Certificate or part of MLIS

# Economic factors of specialized handling

- Lack of equipped facility spaces
- “Decentralized and inadequate” funding
- Software costs are variable
- Additional degrees, courses or requirements for specialty skills
- Establish effective, concise university-based programs in A/V preservation
- Build partnerships to increase funding and the flow of knowledge/information

Council on Library and Information Resources and the Library of Congress. (2010). *The state of recorded sound preservation in the United States: a national legacy at risk in the digital age*. Council on Library and Information Services, Washington, DC.

Nelson-Strauss, Brenda, Alan Gevinson, and Sam Brylawski. (2012). “Building the national sound recording preservation infrastructure” from *The Library of Congress national recording preservation plan*. Council on Library and Information Services, Washington, DC.



# Economic factors of specialized handling

- Establish (under)graduate degree programs with curricula aimed at audio and video archiving and preservation
  - Administration and management
  - Conservation and reformatting of historical recording formats
  - Management of digital assets and storage systems
- Build partnerships:
  - Encourage federal, state, and local grant-making organizations; foundations; and private donors to help fund and support educational programs and the research needs of archival institutions
    - (Recommendation 4.5): The National Recording Preservation Foundation should publicize preservation activities of educational institutions and attempt to match projects and initiatives with appropriate funding agencies...and make efforts to inform prospective funders of the importance of professional preservation training programs.”
- Encourage the creation of internships and fellowships in archiving and preservation
- Establish and maintain networks/channels for sharing expertise and supporting goals





# Economic factors of specialized handling



## Here to help:

- The Society of American Archivists (SAA)  
[archivists.org](http://archivists.org)
- The American Library Association (ALA)  
[ala.org](http://ala.org)
- Association of Recorded Sound Collections (ARSC)  
[arsc-audio.org](http://arsc-audio.org)
- The Music Library Association (MLA)  
[musiclibraryassoc.org](http://musiclibraryassoc.org)
- The Library of Congress  
[loc.gov](http://loc.gov)
- The National Recording Preservation Board  
[loc.gov/rr/record/nrpb](http://loc.gov/rr/record/nrpb)
- Audio Engineering Society (AES)  
[aes.org](http://aes.org)
- The Association of Moving Image Archivists (AMIA)  
[amianet.org](http://amianet.org)

# Assessing archival collections staff

- Starting point: job descriptions that use “competency-based language to target the known gaps between what is currently present in the [archive] and expected future needs.”
- Clearly outlined performance goals addressed upon hiring
- Ongoing individual assessment is conducted (quarterly/annually) to track progress and identify any other areas for further development.

Huff-Eibl, Robyn, Jeanne F. Voyles, and Michael M. Brewer. (2011). *Competency-based hiring, job description, and performance goals: the value of an integrated system*. *Journal of Library Administration*, 51:7-8, 673-691.

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- ✓ Determined
- ✓ Consistent
- ✓ Time management skills
- ✓ Efficient
- ✓ Strives for quality that embraces the sought after original standard that the material once held
- ✓ Maintains collection by testing and migrating data when needed and by guaranteeing stability of collection room environmental conditions.
- ✓ Demonstrates leadership skills in preservation work in compliance with the highest professional standards
- ✓ Provides feedback; reports on the challenges and accomplishments of operations
- ✓ Supports the mission and maintains the integrity of the collection through positive, enthusiastic interaction with colleagues, patrons, etc.
- ✓ Well-supported by colleagues

**Define** clear boundaries for a digital conversion project, particularly the end point.

**Brainstorm:** In nontechnical terms, state the desired outcomes for the source materials and the functional requirements for the digital reproductions.

**Justify** why digital, rather than analog, reproduction is necessary.

**Describe** the audiences and their needs.

Describe the things that digital copies will do that analog copies cannot.

**Project** a lifespan for the digital reproductions.

**Plan:** Write a project plan, budget, timeline, and other planning documents.

**Budget** and plan workflow based upon the results of scanning and cataloging a representative sample of material. Budget (time, if not dollars) for training.

**Implement:** Coordinate simultaneous or overlapping workflows.

**Segregate** materials into batches for conversion and quality control.

**Write** documentation during the project.

**Report** on the lessons learned, particularly the failures and blind alleys: help yourself and your colleagues to learn from your mistakes.

# Summary

- Trained professional audio and video engineers play a vital role in preservation transfer work. However, much of the theoretical and practical knowledge pertaining to archival preservation is held primarily by older engineers and producers who have experience with historical A/V formats and “legacy” playback equipment, and it’s rapidly disappearing as they retire, leaving their positions to be filled by a new generation focused on the creation and distribution of digital media.
- The OHS strives to serve as a model by recognizing the need for preservation transfer work and employing well-trained audio engineers and video production specialists. Their technical guidance and skills can enhance the quality of the digital evolution and expedite access to historical audio and video recordings.
- The innumerable decisions made throughout the transfer process from analog to digital – and digital to digital – requires technical skills, sound judgment, and effective listening abilities, among other traits – all of which directly impact the quality of the final product. There is room for supervised, less-trained technicians!
- Those performing preservation work must preserve the entire body of the artifact and consider technological advancements, and above all strive for quality that embraces the sought after original standard that the material once held.
- A number of resources and education outlets focusing on preservation transfer work exist. Even some higher education programs are *slowly* integrating specialized preservation courses into their curricula, but a standardized degree program that fuses the fundamentals of information science with old and new media engineering, maintenance, and management is needed to fully support preservation efforts. Assessing archival collections staff can help track the progress of institutional goals, identify areas for further development, and advance the role of the archivist in the evolving digital world.
- Adequate funding and partnerships remain critical issues in regards to preservation work, but we remain vigilant in our efforts, for as a unit, we can save our recorded history!

Thank You!

