Audio Preservation at Indiana University

Digital Library Program Brown Bag Series

- Mike Casey—Coordinator of Recording Services, Archives of Traditional Music
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Paradigm Shift for Sound Archivists

Preservation in the Analog Domain

- Life expectancy critically important
- Predicting when a recording will fail
- Quest for the eternal carrier
- Target preservation format—mastering—quality open reel tape
- Standards set in the mid-1980’s—ARSC/AAA
Paradigm Shift for Sound Archivists

The New Paradigm

- Eternal sound carriers never available
- Maintaining equipment long-term unmanageable

Therefore, classical preservation strategy is hopeless
Paradigm Shift for Sound Archivists

The New Paradigm

- Preserve the content, not the carrier
- The eternal file, *not* the eternal carrier
- Use digital mass storage systems

*Longevity of carriers in mass storage systems of minor importance*
Paradigm Shift for Sound Archivists

The New Paradigm

Mass storage should allow for:

- Monitoring of data integrity
- Refreshment of endangered carriers
- Migration of contents
Early Progress in Digital Preservation

- Broadcast (radio) archives as early as 1992
- Suedwestrundfunk, Germany

The importance of teamwork
Early Progress in Digital Preservation

National Library of Australia
Principles of Responsibility

- Everyone doesn’t have to do everything—but someone has to do something

- We don’t have to do everything at once—but someone must be willing to take the lead

- Responsibility can be time-limited, although in the end someone must be willing to take responsibility...
International Association of Sound and AudioVisual Archives (IASA)

- IASA-TC-03 *The Safeguarding of the Audio Heritage: Ethics, Principles and Preservation Strategy Version 2, September 2001*
  [www.iasa-web.org/iasa0013.htm](http://www.iasa-web.org/iasa0013.htm)

- IASA-TC-04 *Guidelines on the Production and Preservation of Digital Audio Objects*
  [www.iasa-web.org/tc04/index.htm](http://www.iasa-web.org/tc04/index.htm)
- Collaboration with Harvard University
- R&D project funded by NEH
- Duration is 18 months

www.dlib.indiana.edu/projects/sounddirections/
Project Partners

- Archives of Traditional Music, Indiana University
- Archive of World Music, Harvard University
- Digital Library Program, Indiana University
- Office for Information Systems, Harvard University

www.dlib.indiana.edu/projects/sounddirections/
Goals

- Develop best practices, test emerging standards for archival audio preservation/storage in the digital domain
- Establish digital preservation systems at both universities
- Produce interoperable results
- Preserve unique field recordings of international importance
- Report our findings, in detail, back to the field
Standards and Best Practices

Objectives

- Research best practices in areas without standards
- Develop best practices to meet existing and emerging standards
- Test existing and emerging standards with a real world project
- Provide extensive data on what works and what doesn’t
Standards and Best Practices

Emerging Standards

- AES 31-3-1999
- AES Technical Metadata
- Broadcast Wave File Format (bwav)
- Open Archival Information System (OAIS)
- Metadata Encoding and Transmission Standard (METS)
Preservation Chain

Selection for Preservation

*Cultures in Conflict Digital Archive (CCDA)*

Does a collection document.....

- A cultural practice/language that has been lost/endangered as a result of conflict
- A practice that has been systematically oppressed
- Expressive culture related to a conflict
- Traditions that have changed due to conflict
- Cultural practices undergoing revival
- Particularly deep/wide information on the above
Preservation Chain

Selection for Preservation

Point Scale for Assessing Research Value

5 Points: Collection has exceptional research value
4 Points: Solid research value
3 Points: Moderate research value
2 Points: Minor research value
1 Point: Minimal or no research value
Record Label: Audiodisc
Recording Blank
New York, U.S.A.

D-22

1) Otto Onstad, Spring Grove, Minn.

2) Mrs. Gerard Gilbergon I

Nov. 12, 1942

Recorded at 78 E.P.M.
Preservation Chain

Selection for Preservation

Field Audio Collection Evaluation Tool (FACET)

Preservation Risk Scale

0.0–1.9 = Collection is in very good shape with little or no risk to it at the present time
2.0–2.9 = Collection is in good shape with a small risk to it at present
3.0–3.9 = Collection is in decent shape but is at some risk
4.0–4.9 = Collection is in deteriorating/poor shape with moderate to severe risk
5+ = Collection is in very poor shape or is rapidly deteriorating, has extensive damage or significant deterioration
Preservation Chain

Selection for Preservation

Examples of selections for Sound Directions

- Music from pre-Taliban Afghanistan
- Songs of the Dinka people from Sudan
- African American protest songs recorded in the American South from the 1920s through the 1940s
- Australian aborigine songs and music
Preservation Chain

Transfer (Digitization)

- Full-time audio engineer for transfer work
- Analog playback critical
- A/D converter critical
- 24/96 transfers-flat or unaltered
- Broadcast wave files
- Increasing throughput
Preservation Chain

Creating Derivatives

- Files for DLP for access system (V2?)
- CDs for ATM Library
- Signal Processing
Preservation Chain

Metadata

- Audio Object Manager software tool
- Audio Processing XML Editor software tool
- Performance metadata software tool
- ATM indexes
Preservation Chain

Interim Storage

Quality Control

Workflow

Transmission of files to DLP
Audio Preservation at Indiana University

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Questions?

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