Recital Preservation: before they fade away

DIGITAL FRONTIERS 2016

22 September 2016

Houston, Texas

RICE Fondren Library

Shepherd School of Music

- Formally opened in 1975
- Currently over 300 faculty and students
- Thousands of performances recorded and collected in multiple formats over the years

History

- Earliest recordings (1975-1983) of performances were reel-to-reel format
- Deemed at high risk of deterioration, Fondren Library and the Shepherd School of Music collaborated to place digitized performances from reel-to-reel format in the institutional repository in 2006
- Programs from Shepherd School performances are digitized and online in the institutional repository

- The archive receives about 30 views a month from the US and overseas
- Patrons include Rice University alumni, former faculty, and music students from other institutions

Performances in IR

Preservation Issues

- Library holdings of Shepherd School audio cassette tapes (1983-2002) are becoming at-risk (reasonable useful life = 20 years)
- Digitization will improve access and discovery (cassettes are not circulating)
- Pilot project focusing on a single year to determine feasibility of digitizing the larger collection, including estimating needs

Pilot project work plan

- Compile inventory of cassettes to be digitized for one calendar year
- Document copyright concerns and address possible scenarios
- Test and refine digitization workflows
- Determine file storage needs for master and access files
- Timeline: summer 2016

- Funding for the pilot project:

  $0; utilize existing:

  - Storage infrastructure
  - Staff
  - Equipment

Copyright challenges

- Current practice is to require students to sign a release form for performances; this practice was not in use for the performances in the project years

- Performances were conducted for academic purposes; there is no commercial use

- Rice University pays blanket license fees for copyrighted music to BMI and Ascap

- Low risk of copyright issues for cassette performances since scope is limited to 1980's-2002

- Rice University legal counsel advised that placing legacy recordings online should not require special licensing or permissions

- If a complaint occurs the policy is for the performance to be taken down

Inventory for pilot year 1990

- Subject Specialists:
    - Music Librarian, primary liaison to Shepherd School of Music
    - Music Cataloger

- Physically count the tapes for the calendar year
- Compare to the list of the print program collection
- Check physical condition of tape
- Capture:
    - Call number
    - Tape Type
    - Tape Length
    - Sound Type
    - Condition
    - Performances of special interest
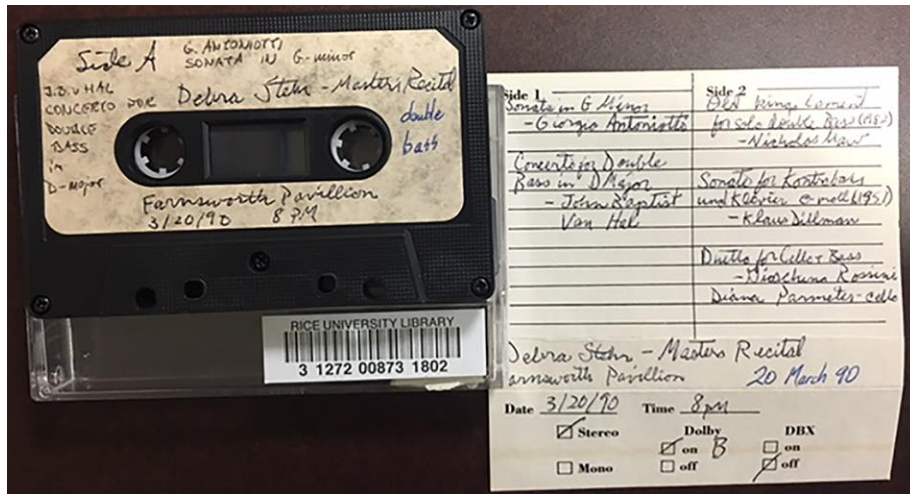
Digital Curation Lab

- Mac Pro workstation set up for cassette digitization by Fondren IT (includes storage for project)
- Cassette tape decks from Digital Media Commons

Requirements

- Audacity software
- Key is that we are capturing cassettes

- Master: WAV format, 16 bit/ 44.1 kHz (cassette tapes typically do not store higher than CD quality audio)
- Access: MP3, delivery via streaming server at 320 kbps

Audio digitization workflow & training

- Metadata Coordinator prepared workflow and trained team; bulk of the reformatting done by:
  - Archivist
  - Access Services staff

- Use Audacity to digitize performances
  - Monitor volume to avoid clipping
  - Remove silence between tape sides
  - Normalize audio to -0.5 dB
  - Perform spot checks of audio at 15 minute intervals

The input level is too loud, clipping off high and low-end frequencies.

Much better -- the full audio wave is captured without losing anything.
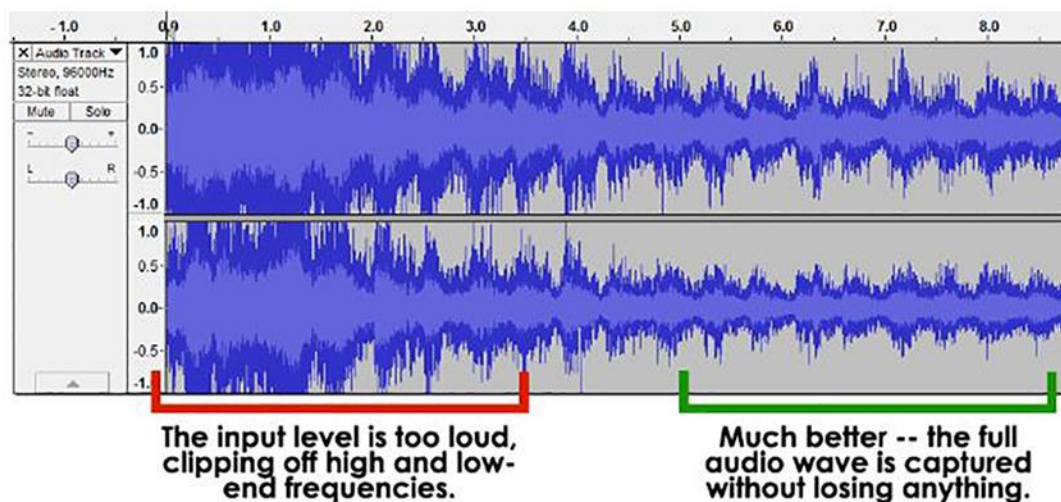
Workflow

- Remove the write protection tabs on the tapes
- Match each tape to (label title) to performance program (PDF)
- For any tape without a corresponding performance program (PDF), enter descriptive metadata into worksheet
- Do NOT use DOLBY noise reduction (NR) functions
- Make sure tape is rewound to beginning of side A

- Determine a reasonable audio level prior to digitization
- While tape is digitizing confirm performance metadata in tracking spreadsheet (compare to online program PDF)

Embedded metadata based on FADGI

- **WAV files (BEXT & INFO-CHUNK)**
  - Description
  - File Originator
  - Creation Date
  - Digitization History
  - Artist
  - Copyright
  - Genre
  - Medium
  - Name
  - Subject
  - Software

- **MP3 files**
  - Title
  - Creator
  - Date
  - Genre
  - Copyright note

Metadata (IR)

- Metadata for sound recordings
  - dc.title
  - dc.date
  - dc.contributor.performer
  - dc.contributor.composer
  - dc.description.abstract (playlist)
  - dc.digitization.specifications
  - dc.format.digitalOrigin
  - dc.format.extent
  - dc.type.dcmi
  - dc.type.genre

- dc.subject (specific to Shepherd School performances)
  - Graduate recital
  - Undergraduate recital
  - Undergraduate and graduate recital
  - Guest artist recital
  - Guest artist lecture
  - Graduate lecture-recital
  - Faculty lecture-recital
  - Faculty recital
  - Children concerts
  - Ensemble

Storage

- Access files (MP3s) can be stored in the public-online repository (backed up by robust local systems)

- Master WAV files in offline storage /cloud storage to be determined

Project status and remaining steps

- 161 known performances in 1990
- 63 performances with audio cassettes
- Digitization completed
- WAV master files: 45 GB
- 71.3 hours playing time

- Batch processing final QC review and MP3s
- Ingest audio files into institutional repository
- Storage of cassette tapes
- Recommendations for larger collection

Intellectual control

Item Details

Item Information   A Look Inside   Catalog Record

Title:	Senior recital [sound recording]
Author:	Arado, Renata, instrumentalist.
Summary/Contents:	Look Inside
Publisher:	Rice University,
Pub date:	1990.
Physical Description:	1 audiocassette : analog, stereophonic, Dolby processed
Item info:	1 copy available at Fondren.
Contents:	Partita no. 2 in D minor / Johann Sebastian Bach -- Sonata in A minor, op. 105 / Robert Schumann -- Sonata no. 3 for solo violin / Eugene Ysaÿe -- Microtono (1989) / Joan Guinjoan -- Havanaise, op. 93 / Camille Saint-Saëns.

Individual Holdings

Call Number:	CASS 901027
Item Format:	Cassette
Location/Due Date:	Fondren - Circulation Desk - 1st floor (Nearby items on shelf)

- Current catalog record for each performance

  - Location of physical cassettes to change from access services to archives
  - Missing tapes identified during project
  - Deaccession of cassette tapes?

Final Goals for Project

- Immediate goal: to work through the backlog of performances on cassettes

    - Digitization of remaining cassette performances through 2002
    - Determine treatment of cassettes once the performances are digitized
    - Evaluation of long-term storage options for master WAV files

- Additional goal: planning for preservation and providing online access to 344 performances on CDs (2002-?)
- Consider methods of making interactive playlists in IR
- Student worker with music background to enrich metadata with LOC composer names

Project Team

Mary Brower: Music Reference Librarian

Scott Carlson: Metadata Coordinator

Keith Chapman: Music Cataloger

Arnold Chee: Fondren IT

Dara Flinn: Archivist/Special Collections Librarian

Amanda Focke: Assistant Head, Special Collections and Archives

Sue Garrison: Access Services Manager

Ying Jin: Application Programmer

Monica Rivero: Digital Curation Coordinator

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Thank you!

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