Digitizing Audio at Small Archival Repositories

Alex Ball
President, Ameryn Media
alex@ameryn.com
www.ameryn.com/archives
WTUL’s Story

- WTUL New Orleans
  - 28,000 LPs in 2005
  - Stored in temporary office due to University Center renovations
  - Story: wtulneworleans.org/about.aspx
WTUL’s Story

- But the records were saved
- So they set about digitizing their archives
- Two years later, everything’s digital
Why Digitize Audio?

● Preservation
  ○ Less handling of the original
  ○ Longevity
    ■ Tape and vinyl media have a lifespan measured in decades
    ■ But only if you are prepared to migrate digitized materials from one generation of technology to the next
    ■ Standards and metadata are important!

● Access
  ○ Collections receive greater exposure
  ○ Provides access to those unable to physically visit repository

Slide contents % Sarah Leu, Historical Society of Pennsylvania
Before Digitizing: Practicality

- Is this type of project a priority?
  - Evaluate user needs and repository goals
- What would the scope of the project be?
  - Define goals and requirements of the project; duration
- Is this feasible with our budget and available space?
  - Costs of equipment, software, training, staffing
  - Space for equipment and storage space
- Is it sustainable?
  - Long-term management and maintenance of images and metadata

Slide contents © Sarah Leu, Historical Society of Pennsylvania
Before Digitizing: Organize

- Arrange and describe your collection
  - This will help with naming digital files and locating materials in the future
  - Think in terms of metadata fields
    - Author/artist, date, comments, etc.

- What materials will be digitized?
  - Selection criteria
    - Refer to project goals
    - Popular items or collections
    - Promotional use
  - Consider audience and repository mission
  - Permissions
Before Digitizing: Permissions

● Ensure that you have the right to copy/distribute the image before you put it online!
  ○ Check your donor/deed or gift form. In addition to a transfer of ownership statement, it should include a copyright release/transfer of intellectual property rights statement.
  ○ You may also wish to include a line in your form outlining other formats your repository can transfer the materials into (e.g. electronic format)
  ○ Transfer of copyright can only be done by the creator

● Is the content in the public domain? If so, state that it is. If not, include a disclaimer.
Hardware

- Cassette deck, reel-to-reel player, etc. - $500 ea.
  - Including professional servicing
  - Most new cassette decks have poor specs
  - Avoid:
    - Dual-well decks, autoreverse, high wow/flutter (>0.15%)
    - Consider multiple units for larger archives (1,000+)
- Computers - $800
  - Recording computer, editing workstation
- Storage - $500
  - 3x 4TB hard drives
- Sound card - $200
- Copy stand, lights - $200
- Camera/scanner - $300
Software

- **Audio editor**
  - Audacity (free)
  - Adobe Audition ($20/mo.)

- **Format**
  - 16-bit, 44.1 kHz (CD quality)
  - Master unedited copy: (.wav)
  - Smaller access copy if desired (.mp3)

- **Image**
  - 600-dpi, 24-bit color (RGB) .tiff format

- **Sufficient and safe storage space**
  - At least two master copies (unedited) stored in different buildings
  - Cloud storage works as a backup, but can be expensive for larger collections

- **Establish file naming conventions**
  - CollectionNumber_BoxNumber_FolderNumber_ItemName (e.g. 012_03_07_ajohnson)
Recording

- **Hardware connections**
- **Audio capture**
  - Single-track - Audacity recommended
  - Multitrack - Adobe Audition recommended
- **Image capture**
  - Open-source - DigiCamControl (Nikon DSLRs)
- **Storage**
  - 3/2/1 backup rule!
- **Repair/restoration**
  - Get ready with the razor, tape and jeweler’s screwdrivers!
Processing

- **Trimming**
  - Eliminate silence from raw recordings
- **Noise reduction**
  - Be conservative, never edit master copy directly
- **Tracking (optional)**
  - Separate parts or segments of recorded audio
- **Tagging (metadata)**
  - Date, subject, etc.
  - mp3tag recommended (www.mp3tag.de)
- **Integration**
  - Host/publish? (Anastasia)
- **Archival**
  - On-site PLUS offsite/cloud backup (3/2/1 rule)
Metadata

- Metadata is “data about data”
  - Information used to describe, locate, and retrieve your materials.
- Examples of metadata include: file size, date of creation, file name, file type, creator, and description
- Be consistent! Remember that using standardized metadata conventions (i.e. formats and vocabularies) helps ensure you include the best information for researchers to find and access your materials and makes your digital collection shareable with central repositories in the future, such as the Digital Public Library of America (DPLA)
- Recommended format standard: Dublin Core Metadata Initiative:
  - http://dublincore.org/
In-house vs outsourcing

- **Speed**
  - 1-4 players vs 10-20
  - 5-20/day vs 50-100; 100-400/month vs 1,000-2,000

- **Cost**
  - Hardware
    - ~$2,000
  - Payroll / volunteer time
    - ~1 hour per 2 items
    - $5/item at $10/hr.
  - Development cost
    - Nobody said this was easy!

- **Quality**
  - Cassette deck/R2R player
  - A/D hardware
  - Noise reduction process
A little plug...

What we can do for you

- Ameryn Media is an end-to-end solution
- We handle the project from start to finish and have developed custom scripting solutions to automate the tedious parts of the process.
- At Ameryn, we combine careful item intake with hi-fi playback and custom-built track detection and file tagging software, combined with a brief manual review for each and every recording.
- Experience, professional hardware and manpower to do it right the first time.
- Contact us!
  - www.ameryn.com
  - info@ameryn.com
  - (844) AMERYN-1
Digitizing Audio at Small Archival Repositories

Alex Ball
President, Ameryn Media

alex@ameryn.com
www.ameryn.com/archives