Appendix 1

Questions to Ask Before Beginning a Digital Audio Project

1. What is your purpose for transferring analog audio recordings to digital formats?

There are many reasons for digitizing collections. Some of the first questions to ask are:
- For what purpose do you want to use the digitized materials and what are the benefits of having this collection in digital form?
- Is there a demand for the content of these materials in digital form?
- Is there a need for the entire collection to be digitized? Principles of selection for a digitization project are not unlike those for any collection-building activity. Preservation issues, access issues, programmatic needs, content value, popularity or level of use/demand, and fundability all play a role in that decision.
- Is the collection inaccessible to the public due to age, damage or value? Can digitizing the collection make it more accessible and help preserve the collection itself? Ultimately, the decision to digitize will have to support and be supported by the mission of your institution or organization.

2. Who is your audience?

This will determine the parameters of the project.
- Who will use the collection?
- Will the users be in-house only, or accessing the materials via the Internet?
- Are transcripts currently available for spoken word recordings, and if so, will your users prefer the actual recordings? Do the transcripts match the interview word for word? If not, this should be noted.
- What are the needs of your users and how can you best serve them?
- How are the materials presently cataloged?
- Will the materials become more available to the public after your project is complete?

3. Who owns the collection?

Copyright is important and it is essential to understand issues of ownership and intellectual property rights. Make certain that you have the authority to make recordings available to researchers or to use the content in programs or Web publications before you start digitizing.
- Who owns the materials?
- For oral histories, did the interviewees and interviewers sign a release form? Oral histories cannot be made available without appropriate

releases from interviewees. There are ethical issues to consider when applying a release that granted only in-library, controlled and limited use to a digitally re-formatted version that will be more widely available via the Web. Interviewees should be contacted wherever possible to ensure that they are aware of the greater access and that their privacy concerns are addressed.

- Are there restrictions on the duplication of the audio?
- Is the audio in the public domain? If not, can permission be obtained? Commercial sound recordings will require copyright clearance for re-formatting and broadcast.

4. What are the physical characteristics of the collection?

- What is the content of audio? Is it worthwhile to digitally reformat it? Sound recordings collected or created by libraries, archives, historical agencies and others will vary in quality of content or research value.
- What is the physical condition of the audio material?
- Can you determine the quality of the recording?
- Was the audio material stored in cool, dry, dark environment? Less than premium conditions cause faster aging.
- Are all of the parts audio tapes still connected? Is the leader connected to the hub?
- What is the age of audio tapes? Older tapes may "print-through," which is the process of magnetic data from one part of the tape actually printing through onto the layer beneath it. As a result the recording is unclear and appears to have faint voices in the background. This also indicates deteriorating magnetic properties.
- How much have the materials been handled and how have they been handled?
- Have tapes been treated carefully and rewound yearly?
- Is tape twisted at all?
- Have materials been played on poor equipment or are they likely to be played on poor equipment?
- What is the length and format of audio tapes? 60 minute tapes are stronger and thicker than 90 or 120 minute tapes. Longer tapes must be handled carefully, rewound carefully and played on higher quality equipment. Speed determines the playing time of open reel tapes and some cassette tapes. Whether the tapes are monaural or stereo will determine the sort of equipment needed for playback.
- Consider the condition of equipment necessary to play tapes. Are you using the best possible?
- Does the entire collection need to be digitized? Perhaps only those of great demand or those that are in poor condition need to be transferred soonest? Know your collection, the level of use it receives, whether there are recordings that are asked for over and over again and others that have

never been accessed. The programmatic needs of your institution may also drive selection by content. Upcoming conferences, curriculum, or exhibition needs may provide the incentive, and the funding, to digitize portions of the collection.

- Are there antique or obsolete formats in your collection? Collections may contain sound recordings in formats so obsolete that playback or access has been close to impossible. Wax cylinders, transcription records, and wire recordings may be essentially unknown quantities until they can be reformatted.*Use a reputable vendor with experience in historical sound recordings and talk to specialists before attempting to reformat or play unfamiliar formats.* See the Association for Recorded Sound Collections Website at http://www.arsc-audio.org/ for additional information.

5. Will you attempt to preserve the original materials after reformatting?

- Can the original be played more than once? If not, then the transfer needs to be under ideal conditions. If your analog recordings show signs of physical deterioration, or if they are recorded on obsolete media or on standard quality cassette tapes they may be a priority for reformatting
- What file type is appropriate for an archival master? Consider the resources of your organization and select the highest quality possible. Understand that preservation reformatting involves a commitment to a long-term program of storage, maintenance and migration of digital files.

6. Who will assess the audio for sound quality?

Employ technicians who possess knowledge and skills to work with analog and digital recordings and equipment. Play a variety of tapes -- created different years, recorded at different speeds, recorded by different people, recorded on different kinds of tapes and tape players -- to determine what is acceptable digital sound quality.

- Will you use digitization as an enhancement tool? Digitization offers the opportunity to improve the quality of sound recordings. For example, digital enhancements can make possible the removal of a *thump* from an old wax cylinder recording; the reduction of background hums, buzzes, or other distractions. These enhancements will add to the cost of the project, but will aid listener's ability to understand what they are listening to. Targeting sound recordings where the quality of the recording may be greatly improved through digitization is one strategy to use when selecting material for re-formatting.

7. What is your time frame?

This is an important consideration, especially for grant-funded projects. As a rule, everything usually takes longer than planned. It is helpful to break the project

schedule down into proposed durations, with milestones and expected completion dates.

8. How is the project being funded?

- Have you secured a source of funding for this project? Fundability may inform the selection decision: could a successful grant be written based on identification and re-formatting of all recordings relating to an event, an occupational or ethnic group, etc.?
- Can funding be tied to work at the collection-level, rather than the audio by itself?
- Can funding be tied to an exhibition budget, built into a conference fee, or become part of a grant proposal for programming?
- Have you considered local, state, national, philanthropic, and collaborative sources?
- Cost recovery is another approach to funding: will users be willing to bear the cost of re-formatting when they request a copy of an audiotape, including a second copy for the institution?
- What parts of the project will funding support? (Physical resources, hardware, software, networked access, personnel, dedicated space, vendor services, etc.)
- How will funding affect your time frame?
- How will funding affect the amount of material that can be digitized?
- Have you considered plans for maintaining access into the future and the ongoing costs?
- Is there a long-term institutional commitment to this project?
- Is funding available for long term maintenance? Does this include transfer to future technologies?

9. Who will be responsible at different stages of the production?

The allocation of staff is also an important consideration.
- What areas and levels of staff expertise are available to you?
- Is the workflow for creating digital audio significantly different to require staff other than those involved in previous digitization projects?
- Who will be responsible for selection and physical evaluation of the materials?
- Who will be responsible for testing of the tapes for sound?
- Who will be responsible for the transfer to digital format?
- What digital audio engineering skills might you need as you progress with a digitization project?
- Who will monitor, track, and confirm the vendor digital files?
- Who will be responsible for creating appropriate metadata for the files?
- Who is responsible for creating the cataloging and descriptive metadata to send to the vendor?
- Is the vendor responsible for metadata, technical and otherwise?

- Who will add metadata to the files after digitization?
- Will the metadata be "harvested" for cataloging, interfaces, etc.?

10. How will you perform the actual transfer?

- Where will the transfer to digital format take place? Off-site or on-site?
- If off-site, does the vendor have adequate, safe storage facilities?
- What is the level of sound quality you hope to obtain? How will this be defined?
- Will you perform any manipulation of the tapes to improve the sound quality?
- What is your criteria for acceptable sound when playing the digital recording? The same as it currently is or better?
- Are there specific guidelines specified by your funding source that you must adhere to?
- Will you create a preservation master as well as a user copy?
- What are the limitations of your hardware and software?