

## Perspectives

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# Whispers in the Stacks: The Problem of Sound Recordings in Archives

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**Abstract:** Although both audio and visual materials are distinctively twentieth-century forms of documentation, audio recordings have been largely ignored by the archival community. One reason for this lapse may be the lack of communication between “paper” and “sound” archivists. More critical reasons include the difficulties of appraisal, processing, use, and preservation that sound recordings pose for archives that are oriented toward the care of paper materials. The author explores these issues, offers suggestions for improving the status and care of sound recordings in archives, and stresses the importance of addressing this issue now, before preservation needs of aging sound recordings become overwhelming.

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A DISTINGUISHING CHARACTERISTIC OF twentieth-century archival collections is the abundance of audio and visual documentation they contain. Since the “birth” of both photography and recorded sound in the nineteenth century, people have become accustomed to making audio and visual records of important moments as well as ordinary ones, and archivists have become accustomed to discovering both audio and visual documentation among the materials they receive.

Over time, photographs and film have earned a respected niche in the world of archival documentation. Few today would argue the historical value of these images, or the necessity of carefully preserving them along with other types of archival materials. Researchers use them for a multitude of purposes, and archivists have access to a significant body of literature regarding their care.

Similar interest is not evident in the archival literature regarding sound recordings and magnetic tape. In fact, there is virtually no relevant literature on the topic to be found in standard archival sources. In the past ten years not one article has been published in the *American Archivist* or the *Midwestern Archivist* on any topic related to the appraisal, preservation, restoration or research use of sound recordings in the archives; only recently have *Archivaria* and *Provenance* addressed issues relating to sound recordings, and then not in great detail.<sup>1</sup> Although articles dealing with oral history frequently include brief discussions on the care of audio tape, an archivist seeking broadly informative writings on recorded sound will search in vain. Even a study of the literature extending back twenty

or twenty-five years, long enough ago for much of the information to be out of date, turns up only a few brief articles, hardly adequate to employ as decision-making tools.<sup>2</sup> There is no SAA “basic manual” on sound recordings; there is only one book devoted specifically to the topic.<sup>3</sup> The silence of the archival community on the subject is deafening. If photographs, the “visual” portion of twentieth-century archives, have a relative abundance of literature pertaining to their preservation and use, why is there a dearth of similar information on the “audio” heritage of our times?

There are several likely reasons for this apparent disinterest, some more complex than others. One relatively simple reason is the virtually complete division of archivists into separate camps, those who care primarily for paper and other eye-readable materials, and those who care for recorded sound.

Paper archivists rarely collect (or even accept) commercial sound recordings (whether disc, tape, or other format). The sound recordings with which they do deal are nearly always unique and noncommercial (e.g., audio tape, wire recordings, dictation belts or discs), and are frequently secondary, in terms of volume of material, to their institution’s holdings of paper materials. In addition, most paper archivists focus on preserving “information” (defined as facts, figures, and words) which until recently came almost exclusively in written, typed, or printed form. Consequently, the paper archivist is likely to be concerned first and foremost with the informational content of recordings. The ac-

<sup>1</sup>Ernest J. Dick, “Through the Rearview Mirror: Moving Image and Sound Archives in the 1990s,” *Archivaria* 28 (Summer 1989): 68-73; Ellen Garrison “The Very Model of a Modern Major General: Documentation Strategy and the Center for Popular Music,” *Provenance* 7:2 (Fall 1989): 22-32.

<sup>2</sup>For example, James D. Porter, “Sound in the Archives,” *American Archivist* 27 (April 1964): 327-36; Walter L. Welch, “Recorded Music and Re-recording Processes,” *American Archivist* 31 (October 1968): 379-83.

<sup>3</sup>Jerry McWilliams, *The Preservation and Restoration of Sound Recordings* (Nashville, TN: The American Association for State and Local History, 1979).

tual sounds captured by many of the recordings that come to paper-oriented repositories may be considered less important than the information they convey, and the recordings themselves may be viewed as dispensable once this information has been transcribed. Archivists who follow this line of thought may consider that recordings of meetings and proceedings, of minutes and memoranda, can be treated as roughly equivalent to written documents that happen to be audible rather than visual in form.

Sound archivists, on the other hand, specialize in administration of sound collections, and frequently have little or no unique, unpublished paper material in their custody. Many sound archives care almost exclusively for commercial recordings; they are often connected more closely with libraries than with manuscript repositories. Although the sound archives that deal primarily with unique, noncommercial recordings (including music of all sorts; spoken word; and field recordings of human, animal, and other sounds) may have important paper materials that document or enhance the usefulness of their holdings, their primary focus is authentic preservation of the sounds captured on the recordings. These archivists are likely to be seriously concerned with technical issues involving recording and playback equipment, authenticity in archival re-recording, and the physical structure of sound carriers. They are more likely to belong to professional organizations relating to libraries, to their subject specialties, or to the technical aspects of their jobs than to archival groups oriented toward preservation, retrieval, and use of manuscripts or paper records.

Recognizing that paper and sound archivists generally appear to operate independently of one another provides some insight into the absence of sound recordings in archival literature; it does not explain such absence entirely. The problematic nature of the recordings themselves may constitute the larger part of the answer. For archivists

accustomed to dealing with paper-based materials, there are great technological disadvantages associated with recorded sound.

Consider the difficulties that sound recordings pose for the paper archivist. They cannot be "scanned" or skimmed quickly by sight alone. The archivist who wants to appraise the recordings, the processor who deals with them once they have been accessioned, and the researcher who desires to use them after processing—all require access to appropriate playback equipment. This playback equipment may be unavailable even for recordings only twenty to thirty years old. To make matters worse, one must listen to the whole recording, at the pace that the recording is meant to be heard, in order to really know what is on it. "Speed reading" is generally not an option.

After recordings are processed, the technological difficulties continue into the reading room, which may have to become a listening room as well. Unless a transcript is made, appropriate playback equipment will have to be provided for every researcher who uses the recording. In cases where a transcript is inappropriate or inadequate, a copy will have to be made for research use so that the original recording is not damaged or worn out. Making user and preservation copies of recordings, especially those originally made on obsolete or nonstandard equipment, is considerably more difficult, time-consuming and expensive than photocopying aging paper documents, a remedy with which paper archivists are usually familiar.

The problems encountered during appraisal, processing, and use have counterparts in the areas of preservation and storage. Sound recordings offer a rich variety of preservation problems. For example, magnetic tape appears to have a "prime-time" life span of approximately twenty-five years, markedly shorter than good paper; less common media such as paper tape and glass- or metal-base acetate discs may have an even shorter life. Magnetic recordings can

be accidentally erased; disc recordings can crack or shatter. Acetate discs will eventually delaminate; soft plastic formats are easily deformed; and some media provide prime feeding materials for fungi. Shellac discs will dissolve if cleaned with solutions containing alcohol; discs containing cardboard filler (which may not be visible to the eye) can fall apart if washed with water. Virtually all sound recordings are degraded by playback; some will exhibit noticeable degradation after only a few hearings. None of the instantaneous formats (e.g., tape, wire, disc, belt) can be shelved for “permanent” storage as paper can; all require regular attention, and will still deteriorate fairly quickly to the point that re-recording is necessary. Environmental requirements, important for slowing deterioration, are different from those of paper, and differ among the various recording formats as well.

Choosing or finding acceptable protective enclosures, storage containers, and shelving is difficult. While most archives are well-equipped for storing boxes of manuscripts, few have easy-to-use, space-efficient systems for sound recordings. The more the recording formats held by the archives vary, the more complicated the storage problems become. Aside from standard-size cassette tapes, which some archives store in card catalog drawers, no other formats fit easily or safely into archival document cases or on standard shelving without wasted space and possible damage to the recordings. Reel tapes, for example, commonly arrive at the archives on reels ranging from 3 inches to 10-1/2 inches in diameter, and in widths of 1/4 inch to an inch or more. They may arrive stored in battered boxes (or in no boxes at all) and on deformed reels. Minimal preservation efforts involve replacement of damaged reels and boxes, but suitable replacements are not readily available from archival suppliers. Disc recordings can vary in size from 7 inches to 16 inches or more in diameter. They require sleeves to protect them from

dust and scratches; some archivists prefer rigid ones that provide additional support. Again, a full variety of appropriate sleeves is not available from standard archival sources. In addition, shelving with vertical dividers, which is highly desirable for disc storage and helpful for tape storage, is difficult to find and expensive when available at all. Most shelving used in paper archives encourages horizontal stacking of the recordings, which is not recommended.

In addition to the difficulties and disadvantages described above, there are no authoritative, widely accepted standards for archival re-recording, for cataloging of archival sound recordings, or for archival storage containers. It is not a surprise, therefore, to find that recorded sound has not been a popular topic in archival literature. Nonetheless, archivists, especially those who care for sound recordings “along with” their paper holdings, must begin to pay more attention to the audio materials in their archives. Because of the short lifespan of most recording formats, we are entering a period where many of the recordings in archival collections are nearing the end of their natural life. In particular, instantaneous recordings from the 1930s and 1940s (or earlier) are living on borrowed time. Archivists need to begin taking stock of the state of their audio holdings, and to plan for future equipment and re-recording needs as well as improved storage facilities. Unlike many paper materials, which can live happily for an indefinite period with only minimal attention, those recordings judged to be worthy of preservation as sound recordings rather than in transcribed form will need regular, continuing review and assessment. Proper care will be time-consuming and, to a greater or lesser degree, expensive.

In addition, archivists should begin paying attention to newly developed recording formats, which will eventually make their way into repositories. It is likely that some of these newer formats may display even

shorter lifespans than the older ones. Cassette tapes are less sturdy, generally, than reel-to-reel; videotape is shorter-lived than film; some optical disk and digital products (including compact discs) may not last as long as old-fashioned shellac or vinyl.<sup>4</sup> With the advent and proliferation of these newer formats, archivists can anticipate increasing budgets for preservation recording in the near future.

### Recommendations

Only time will tell whether sound recordings of the past forty years reach a crisis point in the 1990s. Archivists should begin now to grapple with the problems presented by archival sound recordings and integrate appropriate care and use into the daily operations of their institutions.

Archivists must improve their knowledge of the history, physical characteristics, and care of sound recordings, and include such study as a component of archival training and graduate archival education programs. A surprising amount of relevant literature is available, mostly outside the mainstream archival publications. *Preservation and Storage of Sound Recordings* by Pickett and Lemcoe, despite its age, is an excellent source of basic information on older disc formats (shellac 78s and early vinyl LPs) and magnetic tape.<sup>5</sup> Other particularly good sources include *Phonographic Bulletin*,<sup>6</sup> published by the

International Association of Sound Archives (IASA), and, for more technical information, the *Journal of the Audio Engineering Society*.<sup>7</sup> The *ARSC Journal*, published by the Association for Recorded Sound Collections (ARSC), frequently offers articles on archival issues, including, in recent years, highlights of a debate on international re-recording standards.<sup>8</sup> The ARSC Associated Audio Archives (AAA) Committee recently published the results of a survey focusing exclusively on audio preservation.<sup>9</sup> Library journals sometimes print articles on sound recordings that archivists may find useful.<sup>10</sup> Consumer-oriented publications such as *Stereo Review* feature reviews of new technology and articles on care of recordings. Most of these sources are admittedly unorthodox, and require the reader to exercise archival judgment in weighing the claims of authors who write from a nonarchival perspective. Nonetheless, they also offer valuable information currently not available in mainstream archival literature.

Archivists must become aware of organizations that are studying the preservation of sound recordings and working to develop standards for archives of the future. Groups already engaged in such work in-

<sup>4</sup>Amy Greenfield, "The Case of the Vanishing Videotape," *American Film* (July-August 1981): 17-18; "Laser Rot," *The Perfect Vision* 1 (Winter 1986/1987): 35-45.

<sup>5</sup>A. G. Pickett and M. M. Lemcoe, *Preservation and Storage of Sound Recordings* (Washington, DC: Library of Congress, 1959).

<sup>6</sup>For example, Robert B. Carneal, "Controlling Magnetic Tape for Archival Storage," *Phonographic Bulletin* 18 (July 1977): 11-14; Dietrich Schuller, "Sound Tapes and the 'Vinegar Syndrome,'" *Phonographic Bulletin* 54 (July 1989): 29-31; John Spence, "Mould: A Growing Problem Too Big to Ignore," *Phonographic Bulletin* 55 (November 1989): 21-25; and G. A. Knight, "Factors Relating to the Long Term Storage of Magnetic Tape," *Phonographic Bulletin* 18 (July 1977): 15-45.

<sup>7</sup>For example, Delos A. Eilers, "Polyester and Acetate as Magnetic Tape Backings," *Journal of the Audio Engineering Society* 17 (June 1969): 303-08; and Frank Radocy, "Tape Storage Problems," *Journal of the Audio Engineering Society* 5:1 (January 1957): 32-35.

<sup>8</sup>William D. Storm, "A Proposal for the Establishment of International Re-recording Standards," *ARSC Journal* 15 (1983): 26-37; George Brock-Nannestad, "A Comment and Further Recommendations On 'International Rerecording Standards,'" *ARSC Journal* 20 (Fall 1989): 156-61.

<sup>9</sup>Association for Recorded Sound Collections, Associated Audio Archives Committee, *Audio Preservation: A Planning Study* (Silver Spring, MD: ARSC, 1988).

<sup>10</sup>For example, "Trends in Archival and Reference Collections of Recorded Sound," entire issue of *Library Trends* 21 (July 1972); Doreen Bolnick and Bruce Johnson, "Audiocassette Repair," *Library Journal* 114 (15 November 1989): 43-46.

clude IASA, ARSC, and the Audio Engineering Society (AES). The American National Standards Institute (ANSI) is working on standards relating to recording media, storage, and handling. The United Nations Educational, Scientific and Cultural Organization (UNESCO) is sponsoring development of guidelines for various aspects of sound archives.<sup>11</sup> Meetings of the organizations involved in this research should be publicized more broadly within the "paper" community, perhaps through such groups as the SAA Oral History Section and Recorded Sound Roundtable. Their reports, findings, and guidelines should be reviewed in archival journals and newsletters.

Archivists must develop and disseminate standards for archival re-recording. If the sound captured on a recording is worth preserving for historical purposes, it should be preserved accurately. This issue has generated considerable controversy among sound archivists in this country and abroad, particularly in relation to recordings in obsolete formats and of music and unusual sounds (e.g., field recordings, animals.)<sup>12</sup> While the debate continues, it should still be possible for archivists who deal with relatively simpler recordings (primarily spoken word, such as oral history interviews) to begin discussing standards for such aspects as tape format (reel vs. cassette), size, speed, and track configuration. Standards for exchange tapes between archival facilities were proposed for the international sound archives community at least as early as 1976;<sup>13</sup> archivists might well choose to use these as a starting point for discussion.

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<sup>11</sup>For example, Helen P. Harrison, *The Archival Appraisal of Sound Recordings and Related Materials: A RAMP Study with Guidelines* (Paris: UNESCO, 1987).

<sup>12</sup>See Tom Owen, "Fifty Questions on Audio Restoration and Transfer Technology," *ARSC Journal* 15 (1983): 38-45a. Note also the response to this article, published in the *ARSC Journal* 16 (1984): 5-11.

<sup>13</sup>Dietrich Schuller, "Towards a Standard for Ex-

change Tapes Between Research Sound Archives," *Phonographic Bulletin* 16 (December 1976): 36-37.

There is an urgent need for adequately equipped and staffed archival re-recording laboratories. Although most major sound archives have in-house recording facilities, and some are able to take on work from other institutions, at the present time the United States has not one "public" audio preservation studio devoted to carrying out archival re-recording. Consequently, archivists seeking to copy deteriorating recordings are left almost entirely to their own devices. As the need for professional re-recording services grows, archivists must promote the development of national or regional facilities where appropriate playback equipment can be maintained and archival handling and standards observed. While it is possible that funding and leadership can be found to create laboratories "from scratch," it is more likely that facilities already in existence, such as those available at some sound archives, can be expanded, equipped, and staffed appropriately to take on "outside" work and function as regional preservation centers.

Finally, archivists must take responsibility for preservation of recorded sound by beginning to appraise their audio holdings to determine which recordings warrant intensive preservation efforts and which do not. As discussed above, virtually all instantaneous recordings created up to the present time will require re-recording at some point, and many recordings currently in archives will require this expensive, labor-intensive treatment soon. Only by careful appraisal can archivists plan ahead for re-recording where absolutely necessary, transcribing or transferring recordings to other archives where appropriate, and discarding or deaccessioning when the cost of preserving either the information or the audio content exceeds the anticipated value of the recording. Questions that archivists may wish to ask themselves include:

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change Tapes Between Research Sound Archives," *Phonographic Bulletin* 16 (December 1976): 36-37.

1. Is the content of this sound recording appropriate for this archives?
2. Is the information already available elsewhere in the collection (perhaps in written transcriptions of meeting proceedings or of dictated letters)?
3. Is it important that the *sound* on this recording be preserved?
4. If it is not necessary to preserve the sound content of the recording, and the information does not exist elsewhere in the collections, can the recording be transcribed onto paper so that the informational content is preserved?

For a variety of reasons, including time constraints, staff shortages, and technological difficulties, archivists may be reluctant to undertake this task and to begin the possibly extensive job of examining, auditioning, and transcribing or copying their audio

materials. Nevertheless, given current recording capabilities and the short life predicted for most unique sound recordings, the archives community cannot afford a wholesale approach to audio preservation. Archivists have the option of making intentional choices early in the preservation process, or waiting until the passage of time makes unintentional, and perhaps unfortunate, choices for them at a later date. In short, archivists must consider whether sound recordings will join photographs and film as a valued form of twentieth-century documentation, worthy of careful preservation and use. The time is rapidly approaching when archivists will have to decide which recordings in their collections will be preserved and which will not. Failure to act decisively now will surely result in irreparable losses later.