

The Work of Archives in the Age of Audio Reproduction:

Archival Theory and Recorded Sound

by

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Abstract

This thesis examines the implications for archival theory of sound recording as a documentary medium. Over the last three decades, archivists have devoted considerable energy to exploring the challenges associated with records in media other than ink and paper. Yet, while the theoretical and methodological problems fostered by digital and photographic records have been subject to vigorous debate, comparatively little attention has been devoted to audio records. When archival sound recordings are discussed, the focus is almost exclusively on the formidable task of preserving the sonic signals captured in degraded or obsolete formats. Preserving and enhancing the accessibility of audio records remains an indispensable endeavour, but this thesis argues that other long neglected aspects of archival activity with sound recording now require much greater attention.

Sound recordings are welcome additions to the documentary heritage and transactional evidence preserved by archives, but they are seldom viewed as anything more than adjuncts to the archival enterprise as a whole. The medium-specific value of audio-based records—as opposed to whatever content they may contain—is rarely articulated beyond an affirmation of the powerful allure of listening to noises, music or voices brought forward from the past. Occasionally, these endorsements are supplemented by appeals to sound’s ability to convey the immediacy of a particular moment or to trigger involuntary sense-memories. In recent years, a wide-ranging body of scholarship has established sound as a focus for historical and interdisciplinary investigation. Audio records undoubtedly amplify the range of documented experience, but this thesis argues that archivists must resist the association of sound with simply a more immediate or “immersive” record of the past. The provenance of sound recordings must be carefully situated in relation not only to the technical means by which they were recorded,

stored, and preserved, but also according to the shifting conventions, institutions, expectations, and assumptions that have guided the intended purpose, creation, and prior circulation of such recordings.

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Introduction

This thesis examines the implications for archival theory of sound recording as a documentary medium. Over the last three decades, archivists have devoted considerable energy to exploring the challenges associated with records in media other than ink and paper. Yet, while the theoretical and methodological problems fostered by photographic and digital records have been the subject of vigorous debate, comparatively little attention has been devoted to audio records. When archival sound recordings are discussed, the focus is almost exclusively on the formidable task of preserving the sonic signals captured in degraded or obsolete formats. Preserving and enhancing the accessibility of audio records remains an indispensable endeavour, but this thesis argues that the inception and subsequent development of the technical capacity to reproduce sound has had broader consequences for the development of archival theory. While today archival sound recordings are commonly approached as a form of “special media” to be differentiated from the textual records that serve as the discipline’s normative foundation, the discussion below focuses on the evolution of archival approaches to recorded sound as a way of raising questions about the relationship of recorded information to media in a more general sense.

From the moment that Thomas Edison first announced in 1877 his invention of the phonograph, an apparatus that afforded the “gathering up and retaining of sounds hitherto fugitive, and their reproduction at will,” sound recording was recognized to have great promise as a medium for archival preservation.¹ The ability of Edison’s so-called “talking machine” to capture, retain, and reproduce voices that would otherwise irreversibly fade and disperse heralded for some both the fulfillment of the longstanding mythic ambition and the advent of an

¹ Thomas Edison, “The Phonograph and Its Future,” *The North American Review* 126.262 (May – June 1878): 527.

unprecedented technological power.² In proposing to gather and reproduce sound—long conceived of as an evanescent, ungraspable phenomenon—the new device promised not simply to record evidence of past events but almost to take pieces of time itself into custody. Edison invested his own most ambitious hopes for the phonograph in promoting it as an instrument of precise and efficient recordkeeping. “Can economy of time and space go further,” he asked upon first publicizing his invention, “than to annihilate time and space, and to bottle up for posterity the mere utterance of man, without other effort on his part than to speak the words?”³ Given recorded sound’s longstanding association with recorded music, we often forget that, in the mind of the phonograph’s inventor, the capacity to record sound was firmly associated with the desire to make records, not in the sense of the word’s later use to describe the products of the music industry, but in the sense of producing enduring, portable inscriptions that would offer a more efficient and precise means than script or print for capturing, preserving, and reproducing information and evidence.

Although the fate of recorded sound has largely failed to fulfil Edison’s efforts to enlist it in the service of recordkeeping, sound recordings have long since been accepted as potential records of enduring value. In its various manifestations, recorded sound has come to represent another documentary medium for archival preservation, albeit one in which the content is more dynamic and the preservation challenges more demanding than those associated with textual records. The first institution dedicated to the archival preservation of recorded sound was founded in 1899, just twenty-two years Edison’s successful reproduction of the sound of a human voice, and one year after the publication of Muller, Feith and Fruin’s *Manual for the Arrangement and Description of Archives*, the text that is commonly placed at the foundation of

² John Durham Peters, “Helmholtz, Edison, and Sound History,” in *Memory Bytes: History, Technology, and Digital Culture*, eds., Lauren Rabinovitz and Abraham Geil (Durham: Duke University Press, 2004), 177.

³ Edison, “The Phonograph and Its Future,” 536.

modern archival theory.⁴ The establishment in that year of the *Phonogrammarchiv der Österreichischen Akademie der Wissenschaften* in Vienna was followed quickly by the launch of a succession of other institutions dedicated to the collection and maintenance of sound recordings, such as the *Berliner Phonogramm-Archiv* in 1900, and the Paris-based *les Archives de la Parole* in 1911.⁵ Today, sound recordings represent a noteworthy portion of the world's documentary heritage, for they have been collected and retained since the late nineteenth century by a wide range of institutions, including archives, libraries, and museums. In the United States alone, public institutions now hold an estimated 46 million audio recordings, the great majority of which have never been published and represent unique artifacts.⁶ Collectively, these recordings encompass an innumerable array of different genres and occasions of aural documentation, and they are preserved in a diverse range of sound recording formats, including wax cylinders; aluminum, acetate, or vinyl discs; magnetic tapes on reels and cassettes; digital audio tapes; digital compact discs; and digital files.⁷

⁴ On the so-called Dutch Manual's seminal importance for modern archival theory, see, for example, John Ridener, *From Polders to Postmodernism: A Concise History of Archival Theory* (Sacramento, CA: Litwin Books, 2009), 21-40; Terry Cook, "What is Past is Prologue: A History of Archival Ideas Since 1898, and the Future Paradigm Shift," *Archivaria* 43 (Spring 1997): 20-22; Francis X. Blouin and William G. Rosenberg, *Processing the Past: Contesting Authority in History and the Archives* (Oxford: Oxford University Press, 2011), 29-30.

⁵ For an account of the founding of the *Phonogrammarchiv* see Walter Graf, "The *Phonogrammarchiv der Österreichischen Akademie der Wissenschaften* in Vienna," *The Folklore and Folk Music Archivist* 4.4 (Winter 1962): n.p.. The *Phonogrammarchiv* is still operating today, and its website can be found at http://www.phonogrammarchiv.at/wwwnew/index_e.htm

⁶ Council on Library and Information Resources and Library of Congress, *The Library of Congress National Recording Preservation Plan* (Washington, DC: Council on Library and Information Resources and the Library of Congress, 2012), 35, accessed January 16, 2016, <http://www.loc.gov/programs/static/national-recording-preservation-plan/publications-and-reports/documents/NRPPLANCLIRpdfpub156.pdf>.

⁷ A list of the various types of sound recordings housed in archival institutions would have to include, but should by no means be limited to, the following: recordings of musical and literary performances; early recordings of so-called "voice portraits" of noteworthy individuals; recordings created for ethnographic research; recordings of oral histories; recordings of deliberative and legislative hearings; recordings of administrative meetings and other corporate business; recordings of public and pirate radio broadcasts; recordings of political speeches; recordings of bird songs and other wildlife sounds; and recordings of environmental soundscapes as well as other more diffuse acoustic events.

But if sound recordings, in their many varieties, are generally acknowledged as welcome additions to the documentary heritage and transactional evidence preserved by archives, they are seldom viewed as anything more than adjuncts to the archival enterprise as a whole. The European sound archives founded at the turn of the twentieth century were marked by varied and somewhat idiosyncratic agendas and histories, and they operated at a decisive distance from other archival institutions of that period.⁸ Even today, those archivists engaged with sound recordings are typically set apart from their textual counterparts. As specialists devoted to the preservation of a form of so-called “special media,” sound archivists are typically assigned to distinct divisions or units within larger institutions, if not isolated in repositories exclusively dedicated to the preservation of audio recordings. As the recently published *Encyclopedia of Archival Science* notes, sound archives have generally remained the “poor cousin” of textual archives, “suffering neglect in acquisition, organization and use” and a lack of support for theoretical reflection.⁹

Indeed, despite the surfeit of sound recordings held and maintained by archival institutions, archival theory has traditionally disregarded audio records to such an extent that, as recently as 1990, Christopher Ann Paton could write in *The American Archivist* that there was “virtually no relevant literature on the topic to be found in standard archival sources.”¹⁰ Although sound recordings have been widely accepted for over a century as an essential part of the

⁸ The sound archives in Vienna and Berlin were founded in conjunction with specialized research agendas in the emergent fields of linguistics and ethnomusicology. See Julia Kursell, “A Gray Box: The Phonograph in Laboratory Experiments and Fieldwork, 1900-1920,” in *The Oxford Handbook of Sound Studies*, eds. Trevor Pinch and Karin Bijsterveld (Oxford: Oxford University Press, 2012), 176-197; Eric Ames, “The Sound of Evolution,” *Modernism/Modernity* 10.2 (2003): 297-325.

⁹ James Turner and Randal Luckow, “Audio-Visual Records,” in *Encyclopedia of Archival Science*, eds. Luciana Duranti and Patricia C. Franks (Lanham: Rowman & Littlefield, 2015), 111. This entry groups together moving images and sound recordings under the designation “audio-visual archives.” The adjective “audio-visual” is often applied jointly to moving images and sound recordings, on the basis that both are time-based media.

¹⁰ Christopher Ann Paton, “Whispers in the Stacks: The Problem of Sound Recording in the Archives,” *The American Archivist* 53.2 (Spring 1990): 275.

documentary heritage and transactional evidence preserved by archival institutions, Paton finds that overall “the silence of the archival community on the subject is deafening.”¹¹ In noting the neglect of archival sound recordings, Paton is principally concerned with the preservation of audio records trapped in decaying and outmoded media formats, and not with the implications for archival theories and methods of recorded sound as a particular medium of record. Writing almost two and a half decades ago, just in advance of the promise of widespread digitization for audio records, she foresees a crisis in safeguarding and maintaining the accessibility of archival sound recordings, unless drastic measures are taken to confront and understand the specific demands that audio records make upon archivists. In the years since Paton’s plea, the profession has made a concentrated effort to address the immense challenge of preserving imperilled audio recordings, inspired largely by the possibility of migrating the sonic signals captured in fragile, obsolete, or inaccessible media into digital formats and platforms. Recent initiatives such as the British Library Sound Archive’s “Save Our Sounds” program and *The Library of Congress National Recording Preservation Plan* have attempted to draw attention to the critical threats posed to the audio collections in archives and to garner support for more focused and better funded preservation efforts.¹²

Yet in spite of these and other intensive campaigns to address what Dietrich Schüller, the current head of Vienna’s *Phonogrammarchiv*, has characterized as the “smouldering Alexandrian fire” of the world’s store of recorded sound,¹³ very little attention has been devoted

¹¹ Ibid.

¹² For more on the British Library’s Save our Sounds initiative, see <http://www.bl.uk/projects/save-our-sounds>. *The Library of Congress National Recording Preservation Plan* represents a strategic, practical response to the critical situation outlined in the Council on Library and Information Resources and the Library of Congress’s 2010 report *The State of Recorded Sound Preservation in the United States: A National Legacy at Risk in the Digital Age* (Washington, DC: Council on Library and Information Resources and the Library of Congress, 2012), accessed March 17, 2016, <http://www.clir.org/pubs/reports/pub148/pub148.pdf>.

¹³ Qtd. in Aleida Assmann, *Cultural Memory and Western Civilization: Arts of Memory* (Cambridge: Cambridge University Press, 2011), 339.

to whatever demands and challenges sound recordings have presented to archival theory beyond their physical preservation or digitization. The medium-specific value of audio-based records—as opposed to whatever content they may contain—is rarely articulated beyond an affirmation of the powerful allure of listening to noises, music or voices brought forward from the past. Occasionally, these vague endorsements are supplemented by appeals to sound’s ability to convey the expressive immediacy of a particular moment or to trigger involuntary sense-memories.¹⁴ Yet this thesis argues that archival sound recordings should be approached as neither exclusively a preservation problem nor strictly a specialized media concern.

Although audio records are more commonly celebrated for their emotional impact or expressive value, this thesis emphasizes what Jonathan Sterne characterizes as the “mediality” of sound reproduction. With the term mediality, Sterne refers to the extent to which audio recordings should not be identified strictly with their content or with the technical apparatus used in the recording, but also with an array of social practices, institutions, and “ways of doing things” that have evolved and are often articulated with reference to other media of representation and communication.¹⁵ Different media develop and transform in relation to one another, and “mediality simply points to a collectively embodied process of cross-reference.”¹⁶ An understanding of the value and provenance of audio records must attend to how the various uses, habits, and protocols associated with making and listening to sound recordings have been translated and adapted from those pertaining to other media, while also accounting for the ways in which the capacity to preserve sound has revised our understanding and approach to other forms of record.

¹⁴ See, for example, Seán Street, *The Memory of Sound: Preserving the Sonic Past* (New York: Routledge, 2015); Alan Burdick, “Now Hear This: Listening Back on a Century of Sound,” *Harper’s* (July 2001): 70-77; Robert Perks, “Listening to the Past,” *History Today* 50.11 (November 2000): 36-37.

¹⁵ Jonathan Sterne, *MP3: The Meaning of a Format* (Durham: Duke University Press, 2012), 9.

¹⁶ *Ibid.*, 10.

Focusing upon recorded sound as a form of mediality—as one of the multiple, variable means through which we come to understand how to make and keep a record and what it means to do so—allows for a critical perspective on the conception of media that has informed the development of archival theory. Traditionally, media have been understood within archival theory as simply the material substrate of a record. “Medium,” in this sense, is understood narrowly to mean the physical carrier that supports whatever information or evidence is carried by the record. Archives, as Hilary Jenkinson pronounced, are “a physical part of the facts,” the material residue of whatever activity produced them. The neutral physicality of a record’s medium serves to validate the impartiality of the evidence it carries.¹⁷

This definition of medium conforms to the one more recently given in Richard Pearce-Moses’ *Glossary of Archival and Records Terminology*, which was produced for the Society of American Archivists in 2005. Pearce-Moses’ glossary defines the medium of a record simply as “The physical material that serves as the carrier of information.”¹⁸ Within the context of glossary’s system of cross-references, the definition’s association with the broader term “extrinsic element” reinforces a sense that the physical part of a record, the material that serves as a carrier, is separable or extractable from its content, from the information that the medium carries. In fact, the same glossary specifies under the entry for “information” that it “is independent of any medium in which it is captured as content,” even though the same information may be “intangible until it is recorded in some medium.”¹⁹ At least by this definition, the medium has only an accidental or “extrinsic” relationship to the evidence documented and the information conveyed by a record.

¹⁷ Hilary Jenkinson, “Reflections of an Archivist,” in *A Modern Archives Reader*, eds. Maygene F. Daniels and Timothy Walch (Washington, D.C.: National Archives and Records Service, 1984), 18.

¹⁸ Richard Pearce-Moses, *A Glossary of Archival and Records Terminology* (Chicago: Society of American Archivists, 2005), 246.

¹⁹ *Ibid.*, 202.

Although the volume of records in aural and visual media held by archival institutions has grown steadily since the Dutch manual's publication, the most influential formulations of archival methods and practices have, at least until the flurry of archival confrontations with digital technology over the last few decades, largely followed Muller, Feith, and Fruin's lead in premising their discussions on the management of records composed of ink and paper—namely, “written documents, drawings and printed matter”²⁰—as the basis for the field's foundational principles. Modern archival theory is generally seen to derive from the communicative potential and physical affordances of the written word, even if the tacit assumptions supporting this knowledge are rarely made explicit. “It almost goes without saying,” Brien Brothman acknowledges, “that the archival profession's theories, methods, concepts, and practices have been and largely remain text-driven.”²¹ Even today, when it is commonplace to encounter qualifications in introductory archival literature noting that records can be found in “any media,” including recorded sound, the ensuing discussion and range of examples in such writings almost never account for departures from the assumption of what Geoffrey Yeo describes as a textual “prototype,” a non-restrictive but dominant conception of what counts as a record.²²

Resisting the pull of such assumptions, archivists such as Joan M. Schwartz, Joanna Sassoon, Tim Schlak, Elizabeth Kaplan, and Jeffrey Mifflin have lamented the tendency of archival theory to approach records in visual media as marginal deviations from a textual orthodoxy, rather than as valid and revelatory documentary means in their own right.²³

²⁰ S. Muller, J.A. Feith and R. Fruin, *Manual for the Arrangement and Description of Archives*, trans. Arthur H. Leavitt (New York: The H.W. Wilson Co., 1968), 14.

²¹ Brien Brothman, “Designs for Records and Recordkeeping: Visual Presentation in Diplomats, The Record Continuum, and Documentation Strategy,” in *Controlling the Past: Documenting Society and Institutions: Essays in Honor of Helen Willa Samuels*, ed. Terry Cook (Chicago: Society of American Archivists, 2011), 279.

²² Geoffrey Yeo, “Concepts of Record (2): Prototypes and Boundary Objects,” *The American Archivist* 70 (Fall/Winter 2007): 123.

²³ See, for example, Joanna Sassoon, “Beyond Chip Monks and Paper Tigers: Towards a New Culture of Archival Format Specialists,” *Archival Science* 7 (2007):133-145; Joan M. Schwartz, ; “Coming to Terms with Photographs:

Photographs, in other words, should not be seen as supplementary illustrations appended to the evidence marked by textual records. If photographic records are to be properly appreciated and understood “as both evidence and information, and in their relationship to thinking, knowing and remembering,” then archivists must approach them through a “familiarity with the theories and methodologies, nature and impact of visual communication and visual materials.”²⁴

Understanding the specific contexts that motivated the creation of photographs and photographic collections, as well as the visual and discursive codes and conventions that make the photographs meaningful within those contexts, is necessary in order for photographs to be optimally appraised, described, and made accessible to researchers. Schwartz and Sassoon emphasize that archivists must carefully consider the degree to which accepted archival practices can and cannot accommodate the medium-specific differences associated with photographic records and adapt or revise those methods accordingly. As Schwartz repeatedly reminds her readers, the methods used to appraise and describe archival records, as well as the intentions and assumptions that support them, will largely determine the nature of the evidence and documentary memory preserved in archives.

In a series of essays published between the late 1960s and the 1990s, Canadian archivist Hugh A. Taylor pondered at length the consequences of what he called “the media of record” and urged archivists, “reared for the most part on the heavy gruel of text,” to attend more carefully to the affordances and limitations associated with different documentary means.²⁵

Powerfully influenced by the thought of Marshall McLuhan, Taylor persistently encouraged

Descriptive Standards, Linguistic ‘Othering,’ and the Margins of Archivy,” *Archivaria* 54 (Fall 2002): 142-171, “‘We make our tools and our tools make us’: Lessons from Photographs for the Practice, Politics, and Poetics of Diplomats,” *Archivaria* 40 (Fall 1995): 40-74 Tim Schlak, “Framing Photographs, Denying Archives: The Difficulty of Focusing on Archival Photographs,” *Archival Science* 8 (2008): 85-101; and Elisabeth Kaplan and Jeffrey Mifflin, “‘Mind and Sight’: Visual Literacy and the Archivist,” *Archival Issues* 21.2 (1996): 73-97.

²⁴ Schwartz, “Coming to Terms with Photographs,” 160.

²⁵ Hugh A. Taylor, “Opening Address to the ‘Documents That Move and Speak’ Symposium,” in *Imagining Archives: Essays & Reflections*, eds. Terry Cook and Gordon Dodds (Lanham: Scarecrow Press, 2003), 185.

archivists to confront how the medium in which information is retained and transmitted shapes the message it conveys:

We have taken our records very much for granted: while we have respected and sought to preserve their physical nature, we have regarded them simply as the neutral “carriers” of messages or pieces of information, despite the fact that the nature of each medium does shape administrative systems. The interplay between the medium and the receiver creates a communications environment over and above the content of the message and thereby becomes a message in itself.²⁶

For Taylor, approaching the media of record as simply the physical carrier of information leads to an attenuated sense not only of the information communicated by the record, but also of the potential cultural impact and importance of archives within a larger social context.²⁷ As much as he underlines the importance of registering the specific demands and potentials of different media in the constitution and understanding of records, Taylor never fails to remind archivists that archives themselves are a kind of composite media, subject to the revision and displacement of their own inherited practices and conventions in response to the development of new technologies and forms of social relationship.

Taylor’s favourite figure for the cultural transformation that he associated with the increasingly multi-media and incipiently digital environment of the late twentieth century was McLuhan’s sense of a return to “acoustic space,” or the revival of an oral and aurally-based

²⁶ Taylor, “The Media of Record,” in *Imagining Archives*, 64.

²⁷ “We need to give a great deal more study to the cultural impact of our media of record on the ways in which they ‘work us over’ as we communicate with them, and to develop a kind of metadiplomats as we come to understand how maps, photos, film, sound recordings, and fine arts are to be ‘read’ if they are to be interpreted accurately and their impact on us and society in general assessed.” From Taylor, “The Totemic Universe: Appraising the Documentary Future,” in *Imagining Archives*, 167.

economy of information that would come to undermine the normative rule of the printed word.²⁸ Echoing McLuhan, Taylor tended to cast a shift in documentary medium as the vehicle by which one sense comes to eclipse another, with the ear's usurpation of the eye as the dominant sense prompting the revival of a mythic or "tribal" collectivity.²⁹ However, as Raymond Williams, Jonathan Sterne, and other critics have emphasized, McLuhan's sense of a return to "acoustic space" and the revival of values associated with an aurally-based tradition far too simplistically characterizes the interaction of media with the human senses and their role in the dramatic cultural changes he envisions.³⁰ Sterne characterizes the rhetorical appeal that pits the sense of hearing against the sense of sight as a kind of "audiovisual litany," which casts the senses as relatively unchanging physical or internal realities, completely divorced from a sense of human embodiment as historically and culturally variable: "Instead of offering us an entry into the history of the senses, the audiovisual litany posits history as something that happens *between* the senses. As a culture moves from the dominance of one sense to that of another, it changes."³¹ But in their interactions with media, the human senses do not drive historical change so much as they are themselves historically shaped, and the development of any recording medium must be understood as embedded within a particular historical context, amidst a range of negotiated and contested social interests.

²⁸ For brief summary of McLuhan's notion of "acoustic space," see his elaboration in "Playboy Interview: A Candid Conversation with the High Priest of Popcult and Metaphysician of Media," in *The Essential McLuhan*, eds. Eric McLuhan and Frank Zingrone (New York: Basic Books, 1995), 240.

²⁹ The following passage is a representative example of a rhetorical appeal that can be found throughout Taylor's essays: "Our perceptions are no longer so linear and logical, and we are recovering a sense of the acoustic space of pre-literate societies which may be our salvation. If, as McLuhan suggests, automation is metaphorically an extension of our central nervous system, then in this unified field of a wired and dangerous world we are coming to search for and rely far more on the mythic truths of who we are and where we are going—and many of these truths are being revealed to us in ways other than text. [. . .] We must remain literate, but we will regain the values of oral tradition at the centre of which will be the documents that move and speak." Ibid., pp. 187-188.

³⁰ Raymond Williams, *Television: Technology and Cultural Form*, ed. Ederyn Williams (London: Routledge, 1990), 119-122; Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003), 14-17.

³¹ Sterne, *The Audible Past*, 16.

More recent discussions of the complexity involved in media analysis underline the socially variable and contingent character of any medium. Lisa Gitelman, for instance, offers the following corrective to any definition of media that portrays it as either a neutral carrier of information or the trigger for radical cultural change:

I define media as socially realized structures of communication, where structures included both technological forms and their associated protocols, and where communication is a cultural practice, a ritualized collocation of different people on the same mental map, sharing or engaged with popular ontologies of representation. As such, media are unique and complicated historical subjects. Their histories must be social and cultural, not the stories of how one technology leads to another, or of isolated geniuses working their magic on the world.³²

For Gitelman, the challenge of studying media history is that the subject of investigation is, at the same time, the only means by which we can have access to the available evidence. We cannot know the past outside of the ways in which the evidence of what happened has been inscribed in some form of media, however variable and unstable its meaning may be.³³

This thesis aspires to discuss sound media in relation to the development of archival theory in a similar spirit. In the context of archival theory, sound recordings do much more than augment traditional, ink and paper-based records. They also inform our sense of what it means to

³² Lisa Gitelman, *Always Already New: Media, History, and the Data of Culture* (Cambridge, MA: MIT Press, 2006), 7.

³³ “Media are reflexive historical subjects. Inscriptive media in particular are so bound up in the operations of history that historicizing *them* is devilishly difficult. There’s no getting all of the way ‘outside’ them to perform the work of historical description or analysis. Our sense of history—of facticity in relation to the past—is inextricable from our experience of inscription, of writing, print, photography, sound recording, cinema, and now (one must wonder) digital media that save text, image, and sound.” *Ibid.*, 21.

record an event and of the potential varieties and significances of documentary evidence. The title of this thesis alludes to the well-known essay by the German writer Walter Benjamin entitled “The Work of Art in the Age of Mechanical Reproduction.”³⁴ One of Benjamin’s aims in that essay is to displace the discussion of the new media technologies such as photography and film from the question of whether they should be considered works of art to what effect they have had on our understanding of the category and potential of art in general. In the same spirit, this thesis discusses archival sound recordings not simply to assess how they may best be preserved and handled within archives, but rather in terms of how they have informed and transformed our understanding of the archive itself.

³⁴ Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction,” in *Illuminations: Essays and Reflections*, ed. Hannah Arendt and trans. Harry Zohn (New York: Schocken, 1968), 217-251.

Chapter One: Recorded Sound as an Archival Medium

From time immemorial, therefore, the deeds and learning of the illustrious men and women of the world have been recorded on stone, vellum, and papyrus, in manuscripts and books. These records have always been held in highest esteem and veneration. [. . .] Yet at best these records give but a poor reflection of the times and deeds they are intended to perpetuate. Like preserved fruit, however delicious, they lack the bloom of life: they are dry and difficult of digestion. We read in them in a third-hand fashion. The historian with all his personalities, the growth of the language, the monotony of the reading, all combine to cast about these records, a mist of uncertainty and doubt, which it requires assiduous work and study to dispel.

Recently the writer had occasion to attend a phonograph recital. Among the cylinders that night were some whereon Hon. W.E. Gladstone and the venerable Bismarck had recorded their voices. [. . .] I have read the speeches of Gladstone and of Bismarck, and become familiar with their respective work, but I did not know their spirit until I heard their voice on the cylinder of a phonograph. The body, the strength, the soft modulation, the emphasis, so faithfully reproduced by this delicate mechanism, the life thus imparted to the words, made them sink indelibly into my soul, showing to me the fullness of their power, the men whom till then I had known only vaguely. I felt their presence; their spirit pervaded

me. [. . .] In future there need be no disputed readings, no doubtful interpretation of text or delivery. The phonographic record, being absolutely true, avoids both by preserving all utterances with every modulation and inflection of voice.

Death has lost some of its sting since we are able to forever retain the voices of the dead.¹

When Thomas Edison first publicized in 1878 his invention of the phonograph the previous year, he had to contend with innumerable popular speculations concerning the potential uses and benefits of the device.² Chief among these was the phonograph's archival function, its capacity to document and preserve a record of oral communication. "Document," however, almost seems too weak a word to describe the possibility elaborated by the writer of the passage quoted at length above. For this anonymous author, writing in 1896 for *The Phonoscope: A Monthly Journal Devoted to Scientific and Amusement Inventions Appertaining to Sound and Sight*, the novelty of the phonograph is more accurately characterized as a refinement of traditional documentation, or at least a circumvention of its "third-hand" deficiencies and the "assiduous work and study" required to overcome any textual impediments to a purely intuitive grasp of historic events. "In the future there need be no disputed readings, no doubtful interpretation of text or delivery," he or she claims, because the imprint of the individual voice captured by the phonograph will authenticate every utterance as "being absolutely true." The inscriptions on the cylinder, with their capacity to retain and revive the "voices of the dead," promised to provide something closer to a reanimation than a representation of the past. In

¹ "Voices of the Dead." *The Phonoscope* 1.1 (November 15, 1896): 5.

² Edison, "The Phonograph and Its Future," 527.

preserving sound for its future reproduction, the phonograph appeared not merely to preserve the evidence of past events and utterances, but to defy human finitude.

A legion of tributes to the phonograph's documentary and preservative powers can be found throughout the periodical literature of the late nineteenth and early twentieth centuries. After hearing rumours of Edison's invention, the *New York Times* projected a future in which, "Instead of combustible books, we shall have vast storehouses of bottled authors," with their voices indefinitely preserved on phonograph cylinders, unperturbed by the passage of time.³ Shortly afterwards, upon receiving a private demonstration of the mechanical principles behind the phonograph, *Scientific American* famously declared that "Speech has become, as it were, immortal": "A strip of paper travels through a little machine, the sounds of the latter are magnified, and our great grandchildren or posterity centuries hence hear us as if we were present."⁴ Governments were openly encouraged to begin "laying away in [their] archives phonographic and kinoscopic records that will be of historical value in the future," while contemporary readers are instructed to envy the "lucky posterity" that will have access to such records.⁵ There is little doubt that, as cultural historian Jonathan Sterne remarks, "sound recording was understood to have great possibilities as an archival medium" from the moment that rumors of Edison's invention first entered public circulation.⁶

For Sterne, however, this fixation upon the phonograph's defiance of mortality is curiously incongruent with the manifest fragility of the recording media available at that time.

³ "The Phonograph," *New York Times*, 7 November 1877, 4. Reprinted in *Music, Sound, and Technology in America: A Documentary History of Early Phonograph, Cinema, and Radio*, eds. Timothy Taylor, Mark Katz, and Tony Grajeda (Durham: Duke University Press, 2012), 39.

⁴ Edward H. Johnson, "Wonderful Invention—Speech Capable of Infinite Repetition from Automatic Records," *Scientific American* 37.20 (November 17, 1877): 304.

⁵ "What Posterity Will Inherit," *The Talking Machine World* 1 (January 15, 1895): 3. The kinoscope was a device for the exhibition of motion pictures, first described conceptually by Thomas Edison in 1888 and publicly exhibited in 1893, just in advance of film projection.

⁶ Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham: Duke University Press, 2003), 288.

The wax cylinders and tinfoil sheets used as inscriptive surfaces for the early sound recordings that would inspire such powerful investments in the endurance of their contents were not sturdy enough to sustain more than a few playbacks. In the case of the tinfoil sheet, the record could not even survive its removal from the recording mechanism. The association of sound recording with indefinitely preserving the “voices of the dead,” Sterne argues, was less a reaction provoked by the technology’s astonishing new powers than it was an expression of a set of cultural preoccupations already in place—a symptom of “the nineteenth century’s momentous battle against decay”—which provided a convenient context in which to make sense of those powers.⁷ Sterne even associates the preservative powers attributed to the phonograph with contemporary developments in corpse embalming and fruit canning (and note the disparaging reference to dried fruit in the passage above!). In other words, there was nothing intrinsic to the new medium that motivated its imagined documentary function, and the device’s archival potential should be seen as a “wish and a program for sound recording, not simply a fate realized.”⁸

The early history of sound recording offers a paradigmatic example of the process that Jay David Bolter and Richard Grusin have influentially characterized as “remediation.” Bolter and Grusin use this term to describe the “double logic” typical of our contemporary response to digital technology and so-called “new media”: “Our culture wants to multiply its media and erase all traces of mediation: ideally, it wants to erase its media in the very act of multiplying them.”⁹ These “contradictory imperatives” typically unfold in a narrative sequence in which, “Although each medium promises to reform its predecessors by offering a more immediate or authentic experience, the promise of reform inevitably leads us to become aware of the new medium as a

⁷ Ibid., 292.

⁸ Ibid., 301.

⁹ Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, MA: MIT Press, 2000), 5

medium.”¹⁰ In conformity with this process, the early media of sound recording were sometimes understood as more transparent and immediate means of performing the tasks previously reserved for written or printed documents, even to the point of seeming to overcome some of the limitations of textual documentation. If, as David Levy playfully proposes, “writing is an act of ventriloquism, of throwing the voice into an inanimate object,” then the phonograph literalized a function that the written document could only perform mutely and metaphorically.¹¹ In the wake of the phonograph, writing came to seem more of an obstacle than a conduit to communication.

From the first public announcement of its invention, Edison and others explicitly celebrated the phonograph as an archival medium, suitable both as a means of preserving a sonic record of significant utterances and as an efficient recordkeeping tool. Beyond its capacity “to preserve for future generations the voices as well as the words of our Washingtons, our Lincolns, our Gladstones,” Edison envisioned his so-called “talking-machine” as an instrument for modernizing the world of recorded communication.¹² Among the range of possible uses he imagined for the phonograph, Edison underlined its potential enhancement of legal, historical, and family records, for the machine’s ability to capture and preserve spoken statements could be employed to document “unimpeachable” testimony in a courtroom, the inspirational statements of “great men,” and the last words of dying family members—a domestic memorial function in which the phonograph would “unquestionably outrank the photograph.” Above all else, however, he believed that the phonograph’s primary value would be revealed in a business or administrative context. As a means of facilitating and documenting organizational communication, the phonographic cylinder represented a significant refinement on “the present

¹⁰ Ibid., 19.

¹¹ David M. Levy, *Scrolling Forward: Making Sense of Documents in the Digital Age* (New York: Arcade, 2001), 23.

¹² Ibid., 534.

slow, tedious, and costly methods” associated with textual documents. “It is a perfect *record*,” Edison says of the phonographic cylinder, for it provides an exact, reproducible, document of any communication, and allows the sound of the author’s voice to authenticate its contents.¹³

After a hiatus following the initial public exhibition of the phonograph, Edison returned in 1888 to more aggressively promote the phonograph’s capacity to maintain a record of past events and transactions, but in a manner that underlined the machine’s efficiency and modernity, rather than simply its function as a preservative. For Edison, the device could serve not just as a storage medium but, more importantly, as a means of inscription and transmission. In an article published to coincide with the phonograph’s first appearance as a commercial product, Edison characterized his invention as at once continuous with the most ancient human traditions of documentation and emblematic of a progressive, mechanized future:

It is curious to reflect that the Assyrians and Babylonians, 2,500 years ago, chose baked clay cylinders inscribed with cuneiform characters, as their medium for perpetuating records; while this recent result of modern science, the phonograph, uses cylinders of wax for a similar purpose, but with the great and progressive difference that our wax cylinders speak for themselves, and will not have to wait dumbly for centuries to be deciphered, like the famous Kileh-Shergat cylinder, by a Rawlinson or a Layard. With our facilities, a sovereign, a statesman, or a historian, can inscribe his words on a phonograph blank, which will then be multiplied a thousand fold; each multiple copy will repeat the sounds of his voice thousands of times; and so, by reserving the copies and using them in

¹³ Edison, “The Phonograph and Its Future,” 532-533.

relays, his utterance can be transmitted to posterity, centuries afterwards, as freshly and as forcibly as if those later generations heard his living accents.¹⁴

Edison imagines the phonograph's virtue in its evasion of the hazards and delays of decipherment and translation. In lieu of a learned interpreter, the machine itself will convert the inscriptions on the cylinder into the "living accents" of the speaker. Moreover, it will do so repeatedly, with no diminishment to the content that will be relayed through multiple copies of the same inscribed surface. The phonograph's capacity to conserve is located not in the cylinder's durability but in the process of reproduction itself, in the phonograph's ability to mechanically revive the recording's content "freshly and forcibly" with every iteration without the intervention of a fallible human.

From this perspective, the archival function of the phonograph lay not in its uncanny power to conjure the voices of the dead but, as Lisa Gitelman has argued, in its capacity to authenticate utterances by translating "aural experiences into authoritative, inscribed evidence."¹⁵ Like Sterne, Gitelman wants to situate the inception of early recorded sound within a broader context, but she underlines the administrative and legal frameworks that informed Edison's own vision of the instrument as a "business machine for the conversion of aural experiences into records—permanent, portable, reproducible inscriptions."¹⁶ Despite its later, varied associations with spectacle, music, and entertainment, Gitelman argues that audio reproduction was at least partly intended by Edison as a decisive intervention in the development of transcription techniques such as shorthand and stenography (which, prior to the appearance of Edison's

¹⁴ Thomas A. Edison, "The Perfected Phonograph," *The North American Review* 146.379 (June 1888): 645.

¹⁵ Lisa Gitelman, *Scripts, Grooves, and Writing Machines: Representing Technology in the Edison Era*, (Stanford: Stanford University Press, 1999), 25.

¹⁶ *Ibid.*, 63

device, was also known as phonography). Sound recording provided a superior means to transcribe “verbatim” records in contexts that depended upon maintaining an accurate record of oral testimony or exchange. In such circumstances, the device’s capacity to inscribe and reproduce human speech was not intended to inspire astonishment but to make the phonograph a “party to the textuality of American life, making text more mechanical and fulfilling its varied materiality as documentary evidence.”¹⁷ Thus Gitelman casts audio records as crucial participants in late nineteenth-century America’s negotiation of what forms of inscription could be said to constitute legitimate evidence, normative usage or intellectual property. Beyond merely introducing the possibility of creating “records” in another medium, sound recording and its reception could not be dissociated from both the displacement and consolidation of documentary authority and reliability in the late nineteenth-century American public sphere.

As Gitelman also notes, however, the phonograph may have been initially imagined as “textual device” for producing documentation, but its recordkeeping potential would later come to be far less significant than the ways in which a recording could solicit an audience and a context in which recorded sound could be understood as, for instance, an attraction, a commodity, or a feature of a public or domestic environment. Phonographs, as Gitelman reminds us, “were introduced as objective instruments of public knowledge,” and only later appropriated as “amusing media of public taste.”¹⁸ By the time their association with popular music was established, the association of recorded sound with permanent preservation looked very different. As D.L. Mahieu writes,

The hope for immortality on shellac often became lost, however, in the continual and often extraordinarily rapid turnover of records. For

¹⁷ Ibid.

¹⁸ Ibid., 13.

commercial culture, the wonder of this new technology lay not in historic preservation, but in mass production. [. . .] Popular records became almost as transitory in the market-place as the ephemeral sounds which they preserved.¹⁹

¹⁹ D.L. LeMahieu, *A Culture for Democracy: Mass Communication and the Cultivated Mind in Britain Between the Wars* (Oxford: Clarendon Press, 1988), 89.

Chapter Two

Archival Theory and Recorded Sound

In the wake of the appearance of the phonograph and the development of various other technologies in subsequent years, recorded sound came to represent another documentary medium with which archivists could choose to engage. But aside from recent acknowledgements of the great demands and exigencies of preserving sound recordings, archivists have generally disregarded the implications of audio records for the profession's theories and methods. In this chapter I argue that the development of the technical capacity to reproduce sound should be factored into a critical examination of the foundational assumptions and contexts of late nineteenth- and early twentieth-century archival theory, even though sound recordings themselves were largely ignored by the field in its formative statements. In what follows, I suggest that the scientific and cultural contexts that first made audio reproduction possible and comprehensible also exercised an indirect influence on how archival documentation came to be defined and conceived of in certain influential statements about the nature of archives and records, including those elaborated in Muller, Feith, and Fruin's *Manual for the Arrangement and Description of Archives* and in Hilary Jenkinson's 1922 publication *A Manual of Archive Administration*.

In referring above to "the development of the technical capacity to reproduce sound," I mean to invoke more than just the physical availability of various mechanical devices capable of recording, storing and reproducing sonic phenomena. The reference should also include the various experimental practices and instruments used to investigate the nature of sound over the preceding decades, as well as the many different, sometimes conflicting contexts in which early users deployed the newly available powers of Edison's so-called "talking-machine" and its

various successors. As demonstrated by Jonathan Sterne's path-breaking work on the nineteenth-century scientific and cultural practices that allowed for the emergence of the phonograph, a history of recorded sound must examine not simply the mechanisms that made sound reproduction manifest, but also the various epistemological and social contexts that made it possible, intelligible, and useful.

Sterne, for instance, notes that the human sense of hearing is often treated as a stable, trans-historical endowment, with the advent of sound reproduction characterized by its sudden and intrusive impact. Yet, the phonograph would not have appeared in the form that it did without certain developments in the science of acoustics and changes in the understanding of human hearing; and the device's ability to capture and reproduce sonic signals would not have taken on the meanings, interpretations, and associations that it did without sound reproduction's entanglement in a complex and dynamic field of overlapping social, scientific, and cultural contexts. For Sterne, the actual mechanisms used to store and reproduce sound are merely the crystallizations of more complex and less tangible ensembles of social, cultural and material processes that have allowed these mechanisms to be conceptualized, understood and employed in the particular ways that they have been.¹

My argument finds a precedent in Joan M. Schwartz's essay, "'Records of Simple Truth and Precision': Photography, Archives, and the Illusion of Control," in which she elaborates on what she calls the "shared paradigmatic origins" of photography and modern archival theory in the mid-nineteenth century.² She begins with a fateful historical conjuncture, in which the same French state official, Tanneguy Duchâtel, who proposed in 1839 that the government grant a lifetime annuity to Louis Jacques Mandé Daguerre, in recognition of Daguerre's development of

¹ Sterne, *The Audible Past*, 7-8.

² Joan M. Schwartz, "'Records of Simple Truth and Precision': Photography, Archives, and the Illusion of Control," *Archivaria* 50 (Fall 2000): 5.

daguerreotype, came to be responsible two years later for issuing the influential *Circulaire* on archival classification that first articulated the principle of *respect des fonds*. Taking the near coincidence of these two events as her starting point, Schwartz goes on to argue that the epistemological assumptions behind nineteenth-century photographic practices and the foundations of modern archival theory are congruent in their aspiration towards a particular kind of knowledge. Photography was embraced by its early practitioners as a “means of observing, describing, studying, ordering, classifying, and, thereby, knowing the world.”³ In being thus enlisted as an instrument of knowledge, the camera came to be seen less as a “tool for copying nature” and more as part of a “chemical and physical process by which Nature reproduced itself,” allowing for a presentation of phenomena unimpeded by the limitations and distortions of human observation.⁴ Through the mechanism of the camera, the world was thought to disclose itself to the photographer in a manner that allowed diverse phenomena to be understood simply as a congregation of objectively registered “facts.” “Photography’s persuasiveness,” Schwartz writes, “resided in its ability to pull off the ultimate media trick; it made possible seemingly unmediated transcriptions of Nature.”⁵ Once captured in photographs, these unmediated facts were then readily available to be gathered and mobilized towards the exercise of greater control over the complex and rapidly changing world of the nineteenth century.

Schwartz associates the classification and arrangement of archival records under the directive to *respect des fonds* with a similar drive towards the disclosure of raw factual knowledge. Although it has been much debated since its first official statement in the 1841 *Circulaire*, the principle of *respect des fonds*, at its most basic level, simply demands that records created by or coming from a single agency, individual, or corporate body not be mixed with the

³ Ibid., 33.

⁴ Ibid., 35.

⁵ Ibid., 27.

records of any other grouping. In contrast to earlier tendencies to arrange archival records according to a variety of imposed categories, the *fonds* was said to reflect “an order not drawn from the times but from the very nature of the documents and the actual sequence of events.”⁶ As the principle is elaborated by later writers, such as Hilary Jenkinson (who translates *fonds* as “archive group” in *A Manual of Archive Administration*), *respect des fonds* provides the means through which an “organic” relationship can be maintained between archival documents and the activities or functions they are said to represent, thus allowing the documents to be seen as impartial and authentic witnesses to the facts and events for which they may stand as evidence. According to Schwartz, “Classification by *fonds* was the instrument by which this natural and organic relationship between document and event could be preserved,” so long as it served to avert any interference by the archivist responsible for the documents’ preservation.⁷

An important implication of Schwartz’s argument is that modern archival theory has not developed solely under the influence of the physical properties and representational limits of textual records. The visual medium of photography, Schwartz insinuates, has played a key role in the development of archival theory, even in its classic formulations. The technical capacity to document the world in photographs is inseparable from the ways in which we have come to think about archives, even though conventional archival methods and practices have consistently treated photographic records as deviations from a textual norm.⁸ In Schwartz’s many other essays on archival approaches to photographic records, she argues that archivists need to understand better the history and uses of photography, precisely in order that photographs will be understood not as unmediated facts but as contextually specific documentary statements and acts.

⁶ Ibid., 35

⁷ Ibid.

⁸ See “Joan M. Schwartz, ‘Coming to Terms with Photographs: Descriptive Standards, Linguistic ‘Othering,’ and the Margins of Archivry,’” *Archivaria* 54 (Fall 2002): 142-171.

In the same way that much recent archival theory has interrogated the capacity of archives to capture documentary “truth” merely through the application of the principle of *respect des fonds*, so do archivists need to be more critical and mindful of the assumptions they bring to so-called “special media” records.

Despite often standing as the representative of archival orthodoxy, Hilary Jenkinson had no objections to the inclusion of sound recordings within archival holdings. In the 1937 edition of his highly influential *A Manual of Archive Administration*, he remarks that the recently established National Archives and Records Service in Washington D.C. has created an administrative section through which “the film and sound record” may be included in “the machinery of Public Administration and their subsequent preservation as Archives,” concluding only that “the results of the experience will be awaited with interest.”⁹ In a later address, however, he concluded definitively that there was no essential difference between a sound recording included in the archives and a conventional textual record. Responding to an imaginary challenge as to whether modern business methods may necessitate a revision of traditional archival methods, Jenkinson proclaims:

So long as memory is a necessary part of the conduct of affairs so long will it be necessary to put that memory into a material form, and so long as that is necessary so long will you have Archives; whether they take the form of writing on paper or parchment or palm-leaves by hand or that of steel tape (shall we say) engraved by mechanical means with microscopic grooves which enable you to reproduce at

⁹ Hilary Jenkinson, *A Manual of Archive Administration*, rev. ed. (London: Percy Lund, Humphries, 1937), 165.

will the voices of men who forget or have been themselves
forgotten.¹⁰

For Jenkinson, it is precisely the fallibility of human memory—the possibility of forgetting—that defines the archives. As he relates at the beginning of *A Manual of Archive Administration*, the archives serves as an “artificial memory” arising from the insufficiency of human capacities:

The starting-point of the compilation of Archives in early times is an easy thing to imagine or even in the case of ancient collections to see in action. The official or responsible person—let us call him the Administrator—who has to preside over any continuous series of business functions, the manager of a small estate at one end of the scale, the controller of a kingdom’s finances at the other, relies for the support of his authority on memory: so soon as writing becomes general in use he adopts the preservation of pieces of writing as a convenient form of artificial memory; and in doing so starts a collection of Archives.¹¹

Thus, Jenkinson would find no objection in the logic behind Edison’s proposal of the phonograph as an instrument that “knows more than we do ourselves. For it will retain a perfect mechanical memory of many things we may forget.”¹²

The requirement to gather and manage a surplus of information, which could now far exceed the volume of what could be held in human memory without the support of these external documents, is sometimes figured as the primal, or even traumatic scene that has shaped the

¹⁰ Hilary Jenkinson, “The Future of Archives in England,” in *Selected Writings of Sir Hilary Jenkinson* (Gloucester: Allan Sutton, 1980), 322.

¹¹ Hilary Jenkinson, *A Manual of Archive Administration*, 23.

¹² Edison, “The Perfected Phonograph,” 649.

archival institution, at least as we have inherited it from the past. This, at least, is the sense that Jacques Derrida associates with “the archive” (“if this word or this figure can be stabilized so as to take on a signification”) in *Archive Fever*, his widely discussed meditation on the subject of archives in relation to Freudian psychoanalysis. Tracing the word back to its root, Derrida emphasizes that the Greek “Arkhe” casts the archive as a place of both origins and the force of law, of both “commencement” and “commandment.”¹³ The authorizing or “archontic” power of the archive sits uneasily with its vulnerability as a means of hypomnesic supplement for anamnesis or “living memory.” The archive, Derrida writes,

Will never be either memory or anamnesis as spontaneous, alive
and internal experience. On the contrary: the archive takes place
at the place of originary and structural breakdown of the said
memory.

*There is no archive without a place of consignation,
without a technique of repetition, and without a certain
exteriority. No archive without outside.*¹⁴

What Derrida designates as *mal d'archive* (which can signify not only a fever or affliction, but also a morally-inflected evil) is an attempt to foreclose the archive, to equate the hypomnesic trace with the living memory.

Derrida comments that “the archive, as printing, writing, prosthesis, or hypomnesic technique in general is not only the place for stocking and for conserving an archivable content *of the past* which would exist in any case [. . .]. No, the technical structure of the *archiving* archive also determines the structure of the *archivable* content even in its very coming into

¹³ Jacques Derrida, *Archive Fever: A Freudian Impression*, trans. Eric Prenowitz (Chicago: University of Chicago, 1995), 1.

¹⁴ *Ibid.*, 11. Italics in the original.

existence and in its relationship to the future.”¹⁵ As one among many “hypomnesic techniques,” sound reproduction does not simply make a certain quantity of audio content available for archival deposit, but thoroughly conditions the nature, as well as the possible understandings and uses of that content. This point, as Derrida elaborates on it elsewhere, has “a number of political implications,” for “the way we experience what we want to keep in memory, or in archive—and the two things are different—is conditioned by a certain state, or a certain structure, of the possibility of archiving.”¹⁶ The technical capacity for archiving sound has, in other words, made certain people, phenomena, things and events newly audible and, perhaps more importantly, legible as archival material, even where such people, phenomena, things, and events would not previously have been ascribed a “voice” or means of representation within the archive.

When, in their *Manual for the Description and Arrangement of Archives*, Muller, Feith and Fruin define an *archieff* or archival collection as “*the whole of the written documents, drawings and printed matter, officially received or produced by an administrative body or one of its officials, in so far as these documents were intended to remain in the custody of that body or of that official,*” their emphasis is on the relationship between this documentary accumulation as a whole and the activities of the administrative body or official of which the documents and printed matter are the tangible trace or residue.¹⁷ This statement, the heading of the first of one hundred sections in the manual, is often approached as an articulation of the principle of *respect des fonds*, which was developed in France several decades earlier by Natalis de Wailly.¹⁸ As a

¹⁵ Ibid., 16-17.

¹⁶ Jacques Derrida, “Archive Fever (A Seminar by Jacques Derrida University of Witwatersrand, August, 1998, transcribed by Verne Harris),” in *Refiguring the Archive*, eds. Carolyn Hamilton, Verne Harris, Jane Taylor, Michele Pickover, Graeme Reid and Rasia Saleh (Dordrecht: Kluwer, 2002), 46.

¹⁷ S. Muller, J.A. Feith and R. Fruin, *Manual for the Arrangement and Description of Archives*, trans. Arthur H. Leavitt (New York: The H.W. Wilson Co., 1968), 13.

¹⁸ Michel Duchein, “The History of European Archives and the Development of the Archival Profession in Europe,” *The American Archivist* 55 (Winter 1992): 19.

governing method for archival description and arrangement, *respect des fonds* requires that records from one source not be mixed with those of any other, allowing the records of a single creator to be more efficiently linked to the operational or administrative actions that would constitute these documents' provenance within the contexts delimited by that creator. How best to maintain, describe, and conceptualize the provenance of textual documents, within the context of the particular activities that motivated their creation and for which they may stand as evidence, has been the most consistent preoccupation of archival theories and methods since the publication of the Dutch Manual.

The Dutch trio's solution to this problem is to conceive of the archival collection or fonds of a given administrative body or official as an "organic whole" in which the accumulated documents serve "always as the reflection of the functions of that body or of that official." In their introduction to a 2003 reissue of the Dutch Manual, Peter Horsman, Eric Ketelaar, and Theo Thomassen note that in the preceding sentence, the word "reflection" is the rough English translation of a word that, in Dutch, means something closer to "sediment."¹⁹ The naturalistic cast of this metaphor is employed to underline the fact that records relate to the functions they document in a manner that is not "arbitrary" or manipulative; the figure of sedimentation provides an assurance that they accumulate naturally, through a kind of involuntary process. This characterization also allows the archivist assume the role of a dispassionate observer, a scientist impartially engaged in empirical study: "an archival collection is an organic whole, a living organism, which grows, take shape, and undergoes changes in accordance with fixed rules. . . . The rules which govern the composition, the arrangement and the formation of an archival collection, therefore, cannot be fixed by the archivist in advance; he can only study the organism

¹⁹ Peter Horsman, Eric Ketelaar, and Theo Thomassen, "New Respect for the Old Order: The Context of the Dutch Manual," *The American Archivist* 66.2 (Fall-Winter 2003): 261.

and ascertain the rules under which it was formed.”²⁰ This characterization reserves a distinct role for the archivist: “It is not the first ‘systematizer’ that one meets—and still less the first historian—who is competent to arrange the archival collection, but only the one who has studied its organization.”²¹

Although this characterization casts the archivist as a passive observer, expert in studying and properly maintaining the alluvial deposits left in the wake of a continuous, living process, the task he or she faces involves, in another sense, an attempt to slow the tide that would otherwise wash everything out to sea. The challenge faced by the archivist—to maintain the link between the document and its originating context—arises largely as an attempt to reign in precisely the potentialities that writing has to offer as a technical medium or tool for extending the temporal and spatial reach of human language. In a contemporary world in which literacy has been thoroughly assimilated, it may be necessary to emphasize its principal difference from oral communication. Unlike spoken words, the written document allows for the storage of information externally—outside the memory of a living body—in a relatively fixed or stable form. Put into writing, language and its powers to instruct, command, describe, narrate, represent, attest, or report can endure physically, whereas speech begins to fade into intangibility as soon as it leaves the mouth. *Verba volant, scripta manent*, an ancient Latin proverb instructs: spoken words fly away, written words remain.²²

Moreover, inscribing words on a durable surface extends their communicative reach far beyond the circumstances of their originating context. With the development of writing, human interaction becomes much less dependent upon physical proximity. Letters and various official writs can travel great distances, from imperial centres to distant outposts. The written word can

²⁰ Muller, Feith, and Fruin, *Ibid.*, 19.

²¹ *Ibid.*

²² Mladen Dolar, *A Voice and Nothing More* (Cambridge, MA: MIT Press, 2006), 59.

serve as the proxy for an absent author, who may be long departed or thousands of miles distant. “The written record signed, sealed, and swiftly transmitted was essential to military power and the extension of government. Small communities were written into large states and states were consolidated into empires. The monarchies of Egypt and Persia, the Roman empire, and the city states were essentially products of writing.”²³ Writing’s capacity to amplify the distances in space and time across which communication can take place has long been the source of social and philosophical anxiety. Most notoriously, in Plato’s *Phaedrus*, Socrates relays a parable in which Amon rebukes the Egyptian god Thoth for inventing writing, warning that “if men learn this it will implant forgetfulness in their souls; they will cease to exercise memory because they rely on that which is written, calling things to remembrance no longer from within themselves, but by means of external marks.” Here it is worth noting the link between records and learning things by heart. “True memory is written in the soul of the learner” Not content with merely eroding internal powers of remembrance (what Plato calls *anamnesis*), the written word’s mobility also promotes misunderstanding wherever it finds itself:

When it has once been written down, every discourse rolls about everywhere, reaching indiscriminately those with understanding no less than those who have no business with it, and it doesn’t know to whom it should speak and to whom it should not. And when it is faulted and attacked unfairly, it always needs its father’s support; alone it can neither defend itself nor come to its own support.²⁴

²³ Harold Innis, *Empire and Communications* (Toronto: Dundurn Press, 2007), 30.

²⁴ Qtd. in John Durham Peters, *Speaking into the Air: A History of the Idea of Communication* (Chicago: University of Chicago Press, 1999), 47.

It would perhaps be possible to frame archival theory from the Dutch Manual onwards as response to the same recognition that all verbal communication is contingent upon the particular contexts in which words are delivered and received, and a parallel concern that writing separates words all too easily from the contextual supports that would validate their intended meanings. Certainly, one could at least define the central dilemma confronted by the Dutch Manual as how to preserve the contents of written records, as they are brought forward through time, without severing them from the past contexts of communicative activity that would make them meaningfully useful as evidence or knowledge about the past. In this sense, modern archival theory is premised on suppressing or resisting at least some of the affordances built into the communication medium that has, for several millennia, served as the principal *raison d'être* for archives as a particular social institution.²⁵

John Ridener situates the publication of the Dutch Manual within the broad context of a modern “desire for standardization and the spread of the industrial mindset to many areas beyond manufacturing,”²⁶ but the more immediate spur to professional standardization came from the profession that, at the time, constituted the archives’ primary research constituency. In the well-rehearsed narrative of nineteenth-century historiography, Leopold von Ranke’s efforts to place a primary value upon documentary evidence—as the best means “to show what actually happened [*wie es eigentlich gewesen*]”²⁷—provided the basis for casting the academic discipline of history

²⁵ It is in this spirit that archivist Brien Brothman has recently proposed that “buried in the phrase ‘written record’ is an oxymoron,” if, that is, we understand an orthodox definition of a record to mean “a risk-averse act of object control and meaning stability,” and the act of writing to imply an acceptance of the “risks involved in letting go, allowing one’s text to undergo processing by other egos, other consciousnesses, others’ readings.” Brien Brothman, “Perfect Present, Perfect Gift: Finding a Place for Archival Consciousness in Social Theory,” *Archival Science* 10 (2010): pp., 170-171.

²⁶ John Ridener, *From Polders to Postmodernism: A Concise History of Archival Theory* (Duluth, MB: Litwin Books, 2009), 29.

²⁷ Leopold von Ranke, “Introduction to *The History of the Latin and Teutonic Nations*,” in *The Secret of World History: Selected Writings on the Art and Science of History*, ed. and trans. Roger Wines (New York: Fordham University Press, 1981), 58.

as a science.²⁸ This process required that measures be taken to ensure that the authenticity of historical documents could be established so that they could stand as valid evidence for historical research. The French historians Charles V. Langlois and Charles Seignobos state this succinctly in the opening to their influential book *Introduction to the Study of History*, which was published in France a year before the appearance of the Dutch Manual: “The historian works with documents. Documents are the traces which have been left by the thoughts and actions of men of former times. [. . .] For there is no substitute for documents: no documents, no history.”²⁹ In this regard, documents provide a solid foundation for knowledge; whereas “Writing fixes a statement, and ensures its being transmitted faithfully. . . Oral tradition is by its nature a process of continual alteration.”³⁰ In order for an historian to make “legitimate inferences from a document to the fact of which it is the trace,” precautions must be taken to ensure the authenticity of the document. Moreover, without a proper descriptive apparatus, historians will be condemned to expend the largest part of their labours on the “heuristic” search for documents. Without proper descriptive methods in place, archives were subject to destruction both through revolutionary conflagration, material degradation, and “the unfortunate idea that collections might be systematically *weeded*, those documents only preserved which were ‘interesting’ and ‘useful,’ the rest to be got rid of.”³¹

In ancient civilizations such as Sumer, Assyria, Egypt, and Greece, large aggregations of recorded information, resembling what we would now call archives or records repositories, emerged in conjunction with the development of organized systems of writing. The “written

²⁸ See, for example, Peter Novick, *That Noble Dream: The “Objectivity Question” and the American Historical Profession* (Cambridge: Cambridge University Press, 1988), 21-46.

²⁹ Charles V. Langlois and Charles Seignobos, *Introduction to the Study of History*, trans. G.G. Berry, (London: Duckworth and Co., 1898), 17.

³⁰ *Ibid.*, 180.

³¹ *Ibid.*, 24.

document,” whether it is represented by communicative markings inscribed upon a substrate of clay, stone, papyrus, parchment or paper, can be seen as the necessary condition for the rise of archives as an institutional form with an assigned social function, even though that function may vary depending on the particular context. As Aleida Assmann suggests, the emergence of archives as a form of record-keeping institution is dependent upon “systems of recording that function as external means of storage, the most prominent being the technique of writing, which takes memory out of mental storage and fixes it independently of living bearers.”³² Written documents are, from this point of view, not simply the kind of thing you would find in an archive but the medium of communication largely responsible for the existence of archives from the outset. By allowing for the capture of information and its storage in a fixed, legible form, on a physically durable medium, the advent of a system of meaningful inscription afforded a dramatic increase in the volume of information that could be collected and stored for economic and administrative purposes. Without the capacity to store this information externally, as a formally stable, legible record, the information’s retention and future use would remain contingent, or so it has often been claimed, upon the faulty and fallible powers of human memory and recollection.

In the archival field, Luciana Duranti and Ernst Posner have both investigated the deep historical legacy of archives and recordkeeping institutions in the hope of forging a stronger professional identity for archivists and records managers in the present. Duranti emphasizes the formidable power once exercised by record-keepers in ancient civilizations, concluding her essay with a reminder that “We can rise once again to the social status we enjoyed in the past only if

³² Aleida Assmann, *Cultural Memory and Western Civilization: Functions, Media, Archives* (Cambridge UK: Cambridge University Press, 2011), 327-328.

we acquire consciousness of the importance of our social function.”³³ For his part, Posner proposes that archivists can offer a valuable perspective on the archaeological evidence of ancient recordkeeping practices, especially given their understanding of the importance of “the physical nature of the writing medium” to the genesis, organization and preservation of records.³⁴ But, as valuable as these investigations are in extending the roots of archival methods into human history, they fail to investigate the broader cultural context and implications of the rise of record-keeping as a social practice. It remains far too easy to claim, as Michel Duchein does, that the “practice of archival administration grew . . . as a natural, ‘organic’ phenomenon as soon as the practice of writing on perishable materials was invented.”³⁵

In conjunction with the invention of writing systems, the retention of recorded information is often connected to a series of profound social upheavals or transformations. Specifically, the separate development of sophisticated writing systems in Mesopotamia, Egypt, and Mesoamerica point to a relationship between scriptural technology and a sedentary (i.e, non-nomadic) urban population supported by an economy of agricultural surplus. These factors allowed for intensified concentrations of power and new divisions of labour within the population as a whole, including the ascendant status of a class of scribes or record-keepers. But, if writing is often linked to the birth of civilization itself, to the moment at which humanity crosses the threshold dividing prehistory from history, this common association should, as Lydia Liu points out, only underline the need for a critical reexamination of the very notion of

³³ Luciana Duranti, “The Odyssey of Records Managers,” in *Canadian Archival Studies and the Rediscovery of Provenance*, ed. Tom Nesmith (Metuchen: Scarecrow, 1993), 56.

³⁴ Ernst Posner, *Archives in the Ancient World* (Cambridge, MA: Harvard University Press, 1972), 18.

³⁵ Duchein, “The History of European Archives,” 14-15.

civilization (as opposed to so-called barbarism), as well as its epistemological vehicle of choice, historical development.³⁶

The acquisition of the power of writing is sometimes characterized as a kind of fortunate fall from grace, which unleashes new potentials, even as it fosters alienation from a more secure communal identity:

In an oral culture, there is a homeostasis between knowledge and memory; or, to quote the nostalgic words of an 18th century scholar, it was ‘a time, when all man could know, was all he could remember.’ With the introduction of writing, however, a potential external medium of storage was created that irreversibly destroyed this natural balance. Because writing allows much more to be recorded and preserved than any individual can possibly remember, the effect is a growing surplus or mass of storage. Under these circumstances, the ties between memory and identity have to be redefined [. . .]. The potential inherent in writing consists in the codification and preservation of information independently of any living bearer and of any actualization through collective stagings. The problem inherent in writing consists in the tendency to accumulate unlimited amounts of information. Through external aids that are independent of human memory, the confines of embodied living memory are shattered, and conditions are created for cultural archives,

³⁶ Lydia H. Liu, “Writing,” *Critical Terms for Media Studies*, ed. W.J.T. Mitchell and Mark B.N. Hansen (Chicago: University of Chicago Press, 2010), 310.

abstract knowledge, radical innovations, and the forgetting of traditions.³⁷

As many different scholars have noted, social groups that rely primarily upon speech and gesture for communication, without an accompanying system for creating and preserving written records, have a distinct sense of time, especially in the way they experience the relationship between past and present. Although it is difficult to generalize, given the diversity of sources upon which they have drawn, anthropologists and scholars who have studied oral traditions generally concur in emphasizing the inseparable bond or ontological continuity between the past and the present in minds of the members of those cultural groups that do not employ some form of writing as a medium for storing information. In such a context, developments in the present unfold under the authority of the past, which must be continually revived and sustained through the actualization of an inherited repertoire of stories, cultural practices, and ritual performances. Thus, as Walter Ong emphasizes, the dominant social rhythm is one of repetition and recurrence: “Since in primary oral culture conceptualized knowledge that is not repeated aloud soon vanishes, oral societies must invest great energy in saying over and over again what has been learned arduously over the ages.”³⁸ Significantly, this emphasis upon repetition and recurrence does not mean that accounts of the past do not change, but only that a certain equilibrium or homeostasis between knowledge about the world and memory of the past must be maintained for the sake of preserving a sense of cultural continuity and identity. In contrast to our own lingering mistrust of oral accounts of past events, at least in comparison with the authority commonly invested in written documentation, Jan Vansina observes that, “No one in oral societies doubts that memories can be faithful repositories, which contain the sum total of past human experience

³⁷ Assmann, 127.

³⁸ Walter Ong, *Orality and Literacy: The Technologizing of the Word* (London: Routledge, 1982), 41.

and explain the how and why of present day conditions. [. . .] Whether memory changes or not, culture is reproduced by remembrance put into words and deeds.”³⁹ For orally-based societies, memory is less important for the accuracy or reliability of the representation of the past it holds in mind, than it is for the social function that remembrance actively performs in the present. The present draws upon repeated acts of memory and recollection of the past to establish its own legitimacy and intelligibility. As Julie Cruikshank notes, oral memory is no more subjective than any other historical account:

It is a mistake to equate spoken testimonies with written documents. . .

In so doing we can entirely miss the point of what oral tradition actually *does*, how it is *used*. Oral testimonies are meant to be heard in the particular context in which they are told. They are not documents to be stored for later retrieval. They are cultural forms that organize perception, not ‘containers of brute facts’ because all facts are culturally mediated.⁴⁰

Indeed, for Patricia Galloway, the mnemonic techniques and cultural forms that organize oral narrative are correlative to the invocation of *respect des fonds* and original order; each is a way of preserving the context of a particular series of statements or a body of meaningful evidence about the past.⁴¹

In a recent entry into our contemporary world’s by now time-honoured tradition of drawing an analogy between the information economies of oral traditions and the promise of

³⁹ Jan Vansina, *Oral Tradition as History* (Madison: University of Wisconsin Press, 1985), xi.

⁴⁰ Julie Cruikshank, “Oral Tradition and Oral History: Reviewing Some Issues,” *Canadian Historical Review* 75.3 (1994): 409.

⁴¹ Patricia Galloway, *Practicing Ethnohistory: Mining Archives, Hearing Testimony, Constructing Narrative*, (Lincoln: University of Nebraska Press, 2006), 24.

networked digital technologies, Alan Liu proposes that the “essence of the oral sense of history” is nothing less than “sociality” itself:

Nothing about the media of oral culture lies outside the relationality of social experience, now and for all time. The living and the dead have a history together because oral media link them in a society whose fellowship of past and present is heard in every beat and rhythm of every technique by which each voice, gesture, dance, and music offered up by each individual in the great chorus makes it meaningful to be *us*, repeated generation by generation.⁴²

Power can never be concentrated because it would have to be wrested from a past that lies beyond the control of any group or subgroup. Only with the advent of writing, does a sense of future innovation or individual distinction begin to take hold.

In contrast to the exteriority of writing, orality, according to Walter Ong, relies on a connection between aural perception and interiority:

Vision comes to a human being from one direction at a time: to look at a room or a landscape, I must move my eyes around from one part to another. When I hear, however, I gather sound simultaneously from every direction at once: I am at the centre of my auditory world, which envelopes me, establishing me at a kind of core of sensation and existence. [. . .] You can immerse yourself in hearing, in sound. There is no way to immerse

⁴² Alan Liu, “Friending the Past: The Sense of History and Social Computing,” *New Literary History* 42.1 (Winter 2011): 4.

yourself in sight. By contrast with vision, the dissecting sense,
 sound is thus a unifying sense.⁴³

In *From Memory to Written Record: England, 1066-1307*, M.T. Clanchy argues that textual documents only gradually acquired legitimacy and authority in medieval England. From around the writing of Domesday Book to the end of the 12th century, documents competed with the oral testimony of witnesses to stand as evidence of titles: “People had to be persuaded –and it was difficult to do—that documentary proof was a sufficient improvement on existing methods to merit the extra expense and mastery of novel techniques which it demanded.”⁴⁴ The tension between the “literate preference for the artificial memory of written record, instead of the living memory voiced by wise men of age and experience” a long tradition in itself. “Among the laity, or more specifically among knights and country gentry in the first instance confidence in written record was neither immediate nor automatic. Trust in writing and understanding what it could—and could not—achieve developed from growing familiarity with documents.”⁴⁵ There is nothing intrinsically trustworthy, in other words, about the written document. As Clanchy’s detailed historical account shows, trust in its veracity was built over many years of habituation, until that trust became rooted in the customary responses associated with the medium, rather than a trust induced by any intrinsic quality of the medium itself. The characterization of archives as a form of “artificial memory” relies upon the presumption that writing stores an accurate and impartial account of the past. However, as the practices of orally based traditions demonstrate, an understanding of the past depends also upon the ways in which memory is deployed in the present. Evidence of the past is not stored solely in the medium of its preservation.

⁴³ Ong, *Orality and Literacy*, 72.

⁴⁴ M.T. Clanchy, *From Memory to Written Record: England, 1066-1307*, second edition (Oxford: Blackwell, 1993), 294.

⁴⁵ *Ibid.*, 2.

Chapter Three: The Sound of Archives

Writing in 1972, for a special issue of *Library Trends* he edited on “Trends in Archival and Reference Collections of Recorded Sound,” Gordon Stevenson puzzled over the “paradox” of trying to describe a sound recording for the purposes of making its contents available to researchers:

What is the “document”? Is it the artifact as a physical object which occupies space, or is it the stored contents of the artifact? The sound recording has two physical dimensions, the static physical form of shellac or plastic, disc or tape, and the dynamic physical form which constitutes the intellectual content of the artifact. The latter exists only in time and consists of a series of disturbances in the air (i.e., sound waves which exist only upon being heard). What is stored is an event in time. [. . .] A sound recording is an aural event-in-time packaged as a fixed artifact.¹

For Stevenson, any description of a sound recording involves the inevitably fraught translation of “one frame of sensory perception to another,” for the dynamic “aural-time” captured on the recording must be converted to the static “visual-spatial framework” governing both its textual description and physical arrangement.² The treatment of sound recording in archival studies has struggled to negotiate between these two perspectives.

When sound recordings are discussed, they are often characterized as both exemplary and problematic records. On the one hand, they are characterized as ideal records, exceptional in their immediacy, accuracy and directness. The promise of recorded sound is to provide direct

¹ Gordon Stevenson, “Discography: Scientific, Analytical, Historical, and Systematic,” *Library Trends* 21.1 (July 1972): 107.

² Ibid.

contact with the past, bypassing the layers of interpretation and distance that would characterize auditory descriptions of an event and providing a direct conduit to its unfolding. In elaborating on the ways in which current U.S. copyright law hinders the preservation of historical recordings, for instance, Tim Brooks contrasts this legislative obstruction with the immediate contact with history offered by the recordings themselves: “Through recordings, the past speaks to us directly, without the filter of second-hand interpretation or inference, whether it is a march as Sousa intended it, jazz as it was first widely heard, or a speech as actually delivered by Theodore Roosevelt or Booker T. Washington.”³ Sound archives are commonly said to capture something that could not be conveyed through the medium of written representation.

Audio recordings, moreover, promise the listener more than just an exact record of events, for the ear allows for a more embodied, immersive relationship to the sound generated by the spinning record or unspooling tape. Thus, for archivist Josephine Langham, listening to archival recordings of network radio broadcasts does not provide factual information about 20th century life in Canada, so much as the experience conveys a powerful sense of “how it felt to be alive in a certain period.”⁴ Such characterizations of the experience of listening to sound recordings are often premised upon assumptions about the sensory modality of hearing itself, especially as it has come to be differentiated from vision. Especially in the wake of the work of Marshall McLuhan, the eye is associated with a kind of mastery over the surrounding environment, while the ear connotes the body’s vulnerability and its enmeshment within a dynamic milieu. Thus, for R. Murray Schafer, “Hearing is a way of ‘touching at a distance’”; for Steven Connor, the ear opens onto a “plural, permeated space”; and for Frances Dyson, “sound returns to the listener the very same qualities that media mediates: that feeling of being here now,

³ Tim Brooks, “Only in America: The Unique Status of Sound Recordings under U.S. Copyright Law and How It Threatens Our Audio Heritage,” *American Music* (Summer 2009): 125.

⁴ Josephine Langham, “Tuning In: Canadian Radio Resources,” *Archivaria* 9 (Winter 1979-80): 120.

of experiencing oneself as engulfed, enveloped, absorbed, enmeshed, in short, immersed in an environment.”⁵

These same qualities allow audio records to document with special effectiveness those moments in which order and stability breakdown. “‘Hot’ history, history in the course of being made,” Roland Barthes affirms, “is an auditive history,” and the intensive quickening that accompanies the sound of a “live” recording of a voice or event can be seen as the flipside of the technical difficulties associated with the physical stuff of auditory media and its unrelenting reminders of entropic change and decay.⁶ For Barthes, the record captured by live radio broadcasts allows for a novel relationship to history’s unfolding: “The age-old distance between act and discourse, event and testimony was reduced; a new dimension of history appeared, immediately linked to its discourse, whereas all historical ‘science’ had the task to acknowledge this distance, in order to govern it.”⁷ The same powers of auditory evidence were widely evident in the media response to the release of audio documentation of the attack on the World Trade Centre of September 11, 2001. The release of audio tapes of this event ten years after its occurrence inspired numerous testaments to how the tapes made recollection of the event feel “sickeningly immediate, as if that horrific morning were unfolding again right in front of you, and maybe if you just screamed loud enough, maybe you could do something.”⁸ But even recordings of less dramatic, more mundane sounds such as the ambient noise of steam trains in a

⁵ R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, VT: Destiny Books, 1994), 11; Steven Connor, “Sound and the Self,” in *Hearing History: A Reader*, ed. Mark M. Smith (Athens, GA: University of Georgia Press, 2004), 57; Frances Dyson, *Sounding New Media: Immersion and Embodiment in the Arts and Culture* (Berkeley: University of California Press, 2009), 4.

⁶ Roland Barthes, “Writing the Event,” *The Rustle of Language*, trans. Richard Howard (New York: Hill and Wang, 1986), 149.

⁷ Ibid., 150.

⁸ John Del Signore, “Newly Released 9/11 audio is Frustrating, Horrifying, Riveting,” *The Gothamist* http://gothamist.com/2011/09/08/newly_released_911_audio_is_riveting.php. Kenneth Goldsmith has recently turned the tables on this in his book *Seven American Tragedies*, which consists of written transcription of historic radio broadcasts.

station can inspire states of lyrical absorption in the auditor, as they do for Alan Burdick: “To hear is to recall every cherished moment of attention, to experience again every act of hushed audition. What I heard at the Smithsonian was the passage of time; the heart-rending space between one tick and the next, between a sound and its echo. I have heard the eternal now, and in that moment I was ageless.”⁹

These same qualities that make sound records so dramatic and absorbing, however, can make audio records notably difficult to work with in an archival setting. As Ralph E. Ehrenberg observes, audio records possess “a quality to convey a ‘literal message,’ an attribute not found in any given medium.”¹⁰ By “literal” Ehrenberg wants to communicate how audio records cannot be translated into another form without a violation or diminishment of the totality of what is conveyed through the sound of the record; the transcription of a speech into text, for example, would compromise the message communicated through the medium of sound itself. But the dynamic “literalness” of sound recordings also entails that they remain, to some extent, irreducible:

There are some genuine drawbacks [to sound recordings] which continue to put people off. The most serious results from the excellence of sound recordings as complete evidence: since everything has been preserved, everything has to be interpreted. Good old written archives on the other hand already represent a distillation, which is easily scanned and assessed by its appearance and diplomatic. Recording what is said at a meeting may provide a complete unbiased record, but duplicating this and sending it round

⁹ Alan Burdick, “Now Hear This: Listening Back on a Century of Sound,” *Harper’s Magazine* (July 2001), 75.

¹⁰ Ralph E. Ehrenberg, “Aural and Graphic Archives and Manuscripts,” in *A Modern Archives Reader*, eds. Maygene F. Daniels and Timothy Walch (Washington, D.C.: National Archives and Records Service, 1984), 196.

the participants instead of written minutes will not serve the required purpose.¹¹

Christopher Ann Paton shares this suspicion that the intractability of working with audio recordings' contents may be a least partly responsible for their pervasive neglect by archivists:

Consider the difficulties the 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.¹²

The same qualities that lend audio records their immediacy—the inability of the auditor to achieve a sense distance or control over the record—also make them especially challenging to process and access. Their immediacy of impact and precision of content ultimately comes at the cost of an awareness of their intractable specificity as a medium.¹³

¹¹ Alan Ward, *A Manual of Sound Archive Administration* (Aldershot: Gower, 1990), 6-7.

¹² Paton, "Whispers in the Stacks," 276.

¹³ One cannot help but detect a note of ambivalence in the following endorsement from 1964 of the value of sound archives, in which the precision of the recording is balanced against the time and labour involved in any retrieval of information: "Sound recording has become particularly useful for material that does not require presentation in written form unless litigation develops, a decision is appealed, or widespread dissemination is desired. Such material includes proceedings of board and executive committee meetings, investigation reports, field notes, trip reports, oral presentations before courts and boards. For example, sound recordings have been used by the Oregon State Supreme Court since 1959. Similarly, the 1963 Oregon State Legislature produced over 250 reels of magnetic tape recordings of committee meetings and some House of Representatives sessions. Information of lasting value was thus obtained

The legacy of managing archival sound recordings has dictated they be dealt with as individual items, best dealt with using bibliographical methods, rather than as an interrelated component of their the broader context that delimits their provenance. In his seminal handbook *Modern Archives*, T. R. Schellenberg advised that “library techniques of cataloguing and indexing” could be applied to discrete items such as sound recordings, and for much of the twentieth century, sound recordings were treated as singular items.¹⁴ In his general introduction to the preservation of “sound-storing artifacts,” for example, Ehrenberg warns that, “Arrangement by provenance poses special problems for sound recordings.”¹⁵ Such records tended to be created sporadically, and in a manner that does not always reflect the organizational or documentary context that gave rise to them. Consequently, audio records are commonly arranged serially, using an assigned number, as they were at the time in the National Archives and Records Service and the Library of Congress, rather than in a manner that reflects their origin in a particular function or activity. This practice is clearly justified more on the basis of the constraints of shelving a range of physically diverse materials than on its consistency with the principles of archival theory. In his introductory overview, William Leary agreed that “the sanctity of original order does not make any sense” for audio records, but he relates this less to shelving constraints than to the manner in which audio records are accessed. Because sound recordings must be accessed by using a playback device, meaning that researchers cannot physically browse through them as they do with textual records, “the archivist’s traditional

in over 500 hours of voice recording that could not have been economically transcribed and which has been used on several occasions since.” James D. Porter, “Sound in the Archives,” *The American Archivist* 27.2 (April 1964): 328.

¹⁴ T.R. Schellenberg, *Modern Archives: Principles and Techniques* (Chicago: University of Chicago Press, 1956), 24.

¹⁵ Ehrenberg, “Aural and Graphic Archives and Manuscripts,” 197.

concern to discern and perfect an arrangement pattern is largely irrelevant.”¹⁶ The institutional segregation of sound recordings and the manner in which they are maintained is generally determined not by the content or provenance of the records, but by the physical and technical demands of their medium, by the status of an audio record as a kind of “special media” different in kind from a textual record. In practice, the care demanded by the physical manifestation of a record in a particular format should not necessarily have any bearing on the control an archivist aspires to maintain over the record as an intellectual item, but this has often not been the case.

Christopher Ann Paton attributes the historical neglect of audio records by archivists largely to institutional structures that enforce a “virtually complete division of archivists into separate camps,”¹⁷ each with its own set of opposing priorities. Those archivists who care primarily for textual records are generally concerned with protecting the “informational content” of the records in their custody. Methods and practices derived from the principles of archival theory, such as carefully documenting the records’ provenance and maintaining an arrangement that reflects the original order of the records, provide means for textual archivists to ensure that the content of the records in their custody will be understood within the context of the activities and functions they document. Archivists who care primarily for audio records, on the other hand, are preoccupied less with maintaining intellectual control over the contents of their holdings than they are with administering the “the physical structure of sound carriers.”¹⁸ Sound archivists are generally focused on preserving the storage media on which sonic signals are held and maintaining the playback equipment that will allow these signals to remain audible and accessible to an archives’ users. The specialized technical knowledge required by such tasks

¹⁶ William H. Leary, “Managing Audio-Visual Archives,” in *Managing Archives and Archival Institutions*, ed., James Gregory (Chicago: University of Chicago Press, 1988), 111.

¹⁷ Paton, “Whispers in the Stacks,” 276.

¹⁸ Ibid.

reinforces the distinctiveness or exceptionality of audio records when they are measured against their textual counterparts.¹⁹

Australian audiovisual archivist Mark Edmondson notes that, while for many archival institutions “preservation is conceived as the ‘added extra’ to the functioning of the organization, it is conceptually *central* to the functioning of the audiovisual archive,”²⁰ even if this priority has historically entailed that sound recordings are positioned as an “added extra” within an institutional context. Digital technology has made preservation a more pressing concern for all archivists, but the nature of digital records has also inspired a more intensive engagement with fundamental archival concepts, such as the nature of a record and principles of archival arrangement and description. For sound archivists, however, the demands of preservation have tended to eclipse other concerns. For Edmondson, in fact, “the archival science concepts of the *record*, original order and *respect des fonds* can be confining ones for the audiovisual archive and not always relevant to its needs.”²¹

Recent efforts to convert archival sound recordings to digital formats have been driven largely by necessity and not by the promise of enhanced durability. In fact, digital carriers are generally considered more vulnerable to damage than analogue media such as vinyl discs and magnetic tapes, because of the density of information they store and the ongoing, active management required by both the storage media and the audio application software necessary to read and reproduce the sounds encoded upon them. The archival preservation of digital sound files requires vigilant monitoring for format obsolescence (to ensure that recordings remain

¹⁹ For Paton, these priorities also enforce a division in professional cultures as well, for sound specialists “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.” Ibid..

²⁰ Mark Edmondson, *Audiovisual Archiving: Philosophy and Principles* (Paris: UNESCO, 2004), 37.

²¹ Ibid., 34.

accessible and that they are migrated to new formats when necessary); file fixity (to ensure that the recordings remain stable and that unintended changes are not introduced through the migration and preservation processes); and hardware failure (to ensure that the storage medium remains stable and does not breakdown). Physical media, as fragile as some audio formats may be, tend to remain accessible much longer without intervention than digital objects. Even the lowest quality cassette recording neglectfully tossed in a box will typically far outlast an unmanaged digital sound recording.²²

One must also emphasize that the preservation of analogue sound recordings involves more than simply preserving the physical medium upon which some long dissipated acoustic vibrations have left some enduring marks. Archivists tend to forget that archival sound recordings were “machine-readable” records long before this term was engaged by archivists in early discussions of electronic records. Whether they have been traced on wax, acetate, or magnetized tape, sonically-produced inscriptions must be “read” by a machine capable of transducing them into the register of amplified sound. Ernest Dick warned back in 1989 that archival attention to the physical deterioration of recording media may divert attention from a “more serious and fundamental problem—the selection and maintenance of playback technology to ‘read’ our documents.”²³ Shortly after Dick published this caution, changes in the market for audio equipment and the rise of several new recording formats left many types of analogue media carriers and playback hardware too expensive and risky to maintain.²⁴ Once the

²² *The Safeguarding of Audio Heritage: Ethics, Principles, and Preservation Strategy*. IASA TC-03, http://www.iasa-web.org/special_publications/IASA_TC03/IASA_TC03.pdf, 4

²³ Ernest J. Dick, “Through the Rearview Mirror: Moving Image and Sound Archives in the 1990s,” *Archivaria* 28 (Summer 1989): 70.

²⁴ Dietrich Schüller dates this “shift of paradigm” to 1990: “Around 1990, this foreseeable development led to a shift of paradigm among sound archivists: it was realized that the classic aim to preserve the document placed in the archives’ care would ultimately be in vain, because even if carefully kept carriers survived over longer periods, the unavailability of replay equipment would make these stocks irretrievable, and thus useless.” Cf. Dietrich Schüller,

mechanism required to play a particular audio format has given out, the recordings available only in that format will have become effectively inaccessible. Today, many of the machines required to play certain analogue audio formats have become too difficult and expensive to maintain. Digital transfer and re-recording have consequently become the default preservation options for archival sound recordings, when the necessary time and resources are available. While archival institutions have long made a practice of producing access copies for researchers whenever possible, in order to reduce the wear and tear on so-called preservation copies, digital transfer has increasingly become a conservation strategy for the original, preservation copies of recordings as well.

There was some initial resistance to the notion of using digital transfer for preservation. Arguments can still be made that, as Australian audiovisual archivist Mark Edmondson maintains, that sound is so inherently “context-dependent” that “a modern reproducing system may try to emulate but does not replace the experience of seeing and hearing recordings played through the original technology.”²⁵ However, these arguments in favour of the importance of preserving the original have generally given way in the face of the enormously improved access to sound recordings provided by digital recordings.²⁶ By far the most welcome short-term outcome of the long-term preservation strategies is that digital formats have made copies of archival sound recordings immeasurably more discoverable and accessible than ever before, even though many challenges remain to be confronted. Digital access copies have not only made it much easier for an archives’ users to access audio records on the premises in which they are

“Socio-technical and Socio-Cultural Challenges of Audio and Video Preservation,” *International Preservation News* 46 (December 2008): 5.

²⁵ Mark Edmondson, *Audiovisual Archiving: Philosophy and Principles* (Paris: UNESCO, 2004), 40.

²⁶ Schüller, “Socio-technical and Socio-Cultural Challenges,” 6. Schüller attributes the overcoming of resistance from “traditionally-minded archivists” partly to the efforts of German public radio broadcasters, who invested in massive digital storage capacities in order to have automated access to their holdings assist in the fight of these “previously monopolistic organizations against up and coming private broadcasters.”

held, but many recordings can also be made available to users through the internet, as part of an online portal, web-based exhibit, or other form of digital outreach.²⁷ An astonishingly rich and diverse range of historical audio material is now accessible to anyone with the necessary hardware, software, and network capability.

In response to this development, a sizeable volume of literature has emerged since the late 1990s devoted to the articulation of strategies, standards and best practices for transferring sound recordings to a digital format and maintaining their accessibility. Most notably, the International Association of Sound and Audiovisual Archives has issued guidelines *IASA TC-03 The Safeguarding of the Audio Heritage: Ethics, Principles, and Preservation Strategy* and *IASA TC-04, Guidelines on the Production and Preservation of Digital Audio Objects*.²⁸ Prominent sound archives, such as those at Indiana University's Archives of Traditional Music and Harvard University's Archive of World Music, have collaborated to issue manuals of best practices for audio preservation through digital transfer that have been widely endorsed and adopted, despite the initial resistance mentioned above.²⁹ While most of these guidelines are concerned with the technical challenge of migrating audio signals from one medium to another, they generally concur on certain principles. In all instances, there is an emphasis on replicating the original recording (or, in the case of published recordings, the best copy available) as exactly and precisely as possible. *TC03 The Safeguarding of the Audio Heritage* emphasizes that the transfer of recordings must be performed without attempting to enhance the sound quality of the recording:

²⁷ See Ian Bearden, "Sound Practices: On-line Audio Exhibits and the Cultural Heritage Archive," *The American Archivist* 69 (Spring/ Summer 2006): 33-59.

²⁸ Kevin Bradley, Ed., *IASA TC-04, Guidelines on the Production and Preservation of Digital Audio Objects* (IASA: 2004).

²⁹ Mike Casey and Bruce Gordon, eds. *Sound Directions: Best Practices for Audio Preservation*, <http://www.dlib.indiana.edu/projects/sounddirections/bestpractices2007/>.

It is important to understand that the intended signal is only part of a given sound document. The unintended and undesirable artefacts (noise, distortions) are also part of the sound document, either caused by limited historical recording technology, or subsequently added to the original signal by mishandling (e.g. clicks) or by poor storage. Both have to be preserved with utmost accuracy, which has consequences for the choice of digital resolution.³⁰

Ten years prior to Paton's lament over the neglect for audio records, a firm commitment to the distinction between the physical and intellectual control of archival records, along with his reservations about the institutional separation of so-called media records, inspired Terry Cook to publish a polemic entitled "The Tyranny of the Medium: A Comment on 'Total Archives'" in the Canadian journal *Archivaria*. Working at the time as an archivist in the Public Records Division of the Public Archives of Canada,³¹ Cook framed his argument as a comment upon the "total archives" tradition of Canada's archival institutions.³² Among the various aspects of this tradition, he singles out the aspiration to preserve a documentary record in all forms of media as having a potentially pernicious effect on the integrity of the archival fonds in the institution's custody. Cook clearly situates his intervention as a response to a general recent expansion of acquisition policies to include a wide range of media formats, a development he wholeheartedly endorses:

³⁰ IASA, Technical Committee, *IASA TC-03 The Safeguarding of the Audio Heritage: Ethics, Principles, and Preservation Strategy*, Version 3, Ed. Dietrich Schüller. n.p.

³¹ "Notes on Contributors," *Archivaria* 9 (Winter 1979-80): 272.

³² For a history of "total archives" approach as a defining element in the history of Canada's national archives see Laura Millar, "Discharging Our Debt: The Evolution of the Total Archives Concept in English Canada," *Archivaria* 46 (Fall 1998): 103-146.

Awed by the “Age of McLuhan,” many archivists have unreservedly accepted the maxim that the medium is the message. Units in archival repositories—occasionally even entire repositories!—devoted to film, photographs, paintings, sound recordings, maps, architectural plans, and machine readable records have soared into prominence in the past decade. The initial union at the Public Archives of Canada, and doubtless many other institutions, of official government records and private manuscript collections has flowered into a rich growth encompassing every imaginable medium. All fields of historical inquiry and research have been greatly enhanced by the availability of new media.³³

Informed by the institution’s historical habit of acquiring an eclectic range of materials, the Public Archives of Canada began collecting films and sound recordings in the early years of the twentieth century, but it was “not until 1968 that a special unit was created to collect, process, store, and make accessible sound recordings of archival value.”³⁴ The dedicated sound unit was then soon incorporated into the institutionalized structure of the National Film, Television, and Sound Archives in 1969, which operated as a distinct unit within the Public Archives of Canada, with its own separate location across the street from the central archives, yet still under the institutional umbrella of PAC.

Cook’s essay expresses his concern that the operation within a single institution of distinct units dedicated to different media formats will erode the application of certain foundational principles of archival theory: “Quite simply, the internal divisions of archival

³³ Terry Cook, “The Tyranny of the Medium: A Comment on ‘Total Archives,’” *Archivaria* 9 (Winter 1979-80): 142.

³⁴ Michael D. Swift, “The Canadian Archival Scene in the 1970s,” *Archivaria* 15 (Winter 1982-83): 49.

institutions along media lines has created a *de facto* fragmentation of the archival whole, as defined by the principle of provenance.”³⁵ The principle of provenance demands that records originating from a particular institution, agency or individual not be intermingled with records of a different provenance. According to this principle, the integrity of an archival fonds is protected by describing and arranging records in a manner that reflects their creation and use within the particular context defined by the corporate body or individual from which or whom they originate.³⁶ Dispersing records of different media formats into separate divisions or units imperils “the functional unity of original record,” by singling out records on the basis of their physical form and separating them from other records that share the same generative and operational context. Cook clearly understands that the technical problems associated with the physical preservation of certain media require a significant degree of specialization—and that this requirement constitutes much of the justification for having special media sections—but he is adamant that “while the physical and handling control of a series of functionally related records in various media can be separated, the intellectual control must not be.”³⁷

The forceful articulation in “The Tyranny of the Medium” of the necessity to distinguish between an intellectual or conceptual understanding of provenance and the constraints associated with the physical arrangement and preservation of records anticipates the direction that Cook’s influential thinking in archival theory would take over the next few decades. While the “Tyranny of the Medium” accentuates this distinction in order to mount a defense against an erosion of archival first principles, the same insight will prove to be remarkably generative in the development of his innovative perspectives on archival appraisal and description over the next

³⁵ Ibid.

³⁶ For a recent overview of competing interpretations of the origins and evolution of the principle of provenance, see Jennifer Douglas, “Origins: Evolving Ideas About the Principle of Provenance,” in *Currents of Archival Thinking*, eds. Terry Eastwood and Heather MacNeil (Santa Barbara: Libraries Unlimited, 2010), 23-43.

³⁷ Cook, “Tyranny of the Medium,” 144.

decade and a half, which emerged largely from his articulation of this same split between the conceptual and the physical in a series of path-breaking articles in the early 1990s. The methodological leverage harnessed by holding fast to this insight is readily apparent in essays such as “Mind over Matter: Towards a New Theory of Archival Appraisal,” in which he calls for a shift in the focus of the appraisal of records for archival value “from the actual record to the conceptual context of its creation, from the physical artifact to the intellectual purpose behind it, from matter to mind.”³⁸ Similarly, in an essay from 1993 that served as his response to the Association of Canadian Archivists’ development of a national standard for archival description,³⁹ Cook critiques an inherited ambiguity associated with the elevation of *respect des fonds* as the primary organizing principle for archival arrangement and description. This directive, he argues, has both an external and internal dimension: externally, it requires records be segregated according to their provenance, and internally, the records are to be maintained in their original order. These two demands come into conflict, however, because they reflect “a function, a process, a dynamic activity on one hand, and concrete product an artefact, a record on the other.”⁴⁰ Cook goes on to argue that the assumption that a group of records’ provenance is legible in their physical order of arrangement is no longer tenable in an “Information Age” in which records, especially in their electronic or digital form, will come to be associated more with a dynamic process rather than a static physical structure. He argues that provenance, as a principle, should be divorced from its pairing with the need to respect the physical arrangement associated with the records’ original order.

³⁸ Terry Cook, “Mind Over Matter: Towards a New Theory of Archival Appraisal,” in *The Archival Imagination: Essays in Honour of Hugh A. Taylor*, ed. Barbara Craig, (Ottawa: Association of Canadian Archivists, 1992), 38.

³⁹ Terry Cook “The Concept of the Archival Fonds in the Post-Custodial Era: Theory, Problems, and Solutions,” *Archivaria* 35 (Spring 1993): 33, n.1.

⁴⁰ *Ibid.*, 25.

In essays such as “Electronic Records, Paper Minds: The Revolution in Information Management and Archives in the Post-Custodial and Post-Modernist Era,” Cook more explicitly associates the necessity of severing a conceptual understanding of the record from its physical incarnation with the pressures and affordances of digital technology.⁴¹ However, as Lisa Klopfer has noted, some of the paradigmatic changes in archival methodology associated with digital records had already been anticipated by audio records. For instance, where Cook claims that with digital records, “For the first time, we have records that do not exist to the human eye, unlike the foregoing worlds of Babylonian clay tablets, Egyptian papyrus, Roman and Medieval parchment, and modern paper, even modern microfilm,”⁴² Klopfer observes that this passage’s closing litany is not entirely complete, for “While they are not mentioned in this passage, audio recordings apply as well: like digital documents, they require a machine in order to be made ‘read-able.’”⁴³ This is, of course, another way in which audio recordings resemble digital records. The physical carrier of the original record can be migrated to a new storage medium, so long as the audio signals remain faithful to their original form. If the fate of audio records is largely determined by their physical form—which governs how the records are handled and determines their segregation either within their own “special media” section or apart from other archival institutions in an archive dedicated to sound preservation—the recording’s particular physical embodiment is, at the same time, considered more or less incidental to an understanding of its contents. The original format is often considered a necessary sacrifice to the cause of the record’s preservation. Given the vulnerability of audio media, the practice of re-recording sound records

⁴¹ Terry Cook, “Electronic Records, Paper Minds: The Revolution in Information Management and Archives in the Post-Custodial and Post-Modernist Era,” *Archives and Manuscripts* 22.2 (1994): 301-302.

⁴² *Ibid.*, 301-302.

⁴³ Lisa Klopfer, “Oral History and Archives in the New South Africa: Methodological Issues,” *Archivaria* 52 (Fall 2001): 115. Klopfer further notes that “Additionally, as with digital records, the medium is not the message for sound, at least in so far as it need not be preserved. The signals that make up the record may be (and often must be) moved to other media, even other formats, in order to maintain them.”

both to provide access copies and to renew preservation copies has become standard practice in sound archives.⁴⁴

The complications that such practices introduce into the assumptions supporting the standards of archival description are plainly evident upon a closer examination of the Rules for Archival Description, or RAD, which serves as the descriptive standard currently in use by Canadian archivists. Unlike the more recently developed standard ISAD (G), the RAD manual includes a separate chapter for sound recordings, along with chapters for graphic records, cartography, and other forms of non-textual media. With respect to confinement of photographs to a chapter on “graphic records,” Joan Schwartz has protested the linguistic “othering” or marginalization that accompanies this segregation of “graphic records” from the mainstream of archival theory.⁴⁵ More specifically, Richard Dancy has recently examined the considerable confusion produced by RAD’s guidelines for the description of sound recordings, because of a failure to distinguish between an intellectual item and the physical medium associated with sound recordings:

Consider a not uncommon case: in the 1980s, an archives acquired a reel-to-reel audio tape that included six distinct recordings; in the 1990s, the content was copied from the reel to a set of three audio cassettes for access purposes; ten years on, the archives digitized the cassettes on two CDs that also included other material; later, they were digitized again in different formats (.wav, .ogg) and stored on a file server. What exactly is the item here? Initially, the archives probably logged the reel-to-reel tape as the item and described the recordings on it collectively, providing a

⁴⁴ Christopher Ann Paton, “Preservation Re-Recording of Audio Recordings in the Archives: Problems, Priorities, Technologies, and Recommendations,” *The American Archivist* 61.1 (Spring 1998): 188-219.

⁴⁵ Joan M. Schwartz, “Coming to Terms with Photographs,” 143.

single title, date, scope and content, etc., while applying to the reel the physical categories in RAD's "Sound Recordings" chapter. But the subsequent duplication of the separate recordings onto different carriers makes this problematic; it is the individual recording that is the distinct intellectual item, and it needs a description of its own.⁴⁶

Among the most grievous symptoms of media specialization, for Cook, is the temptation for the various media divisions units to focus on "the collection of their own media *qua* media as much as the collection of significant material [. . .] according to the institution's mandate."⁴⁷ Thus records may be accessioned because they document some aspect of the history medium itself, or for their "aesthetic appeal" rather than their "historical significance." Such practices aren't unworthy endeavors, but they divert scarce resources away from potentially more useful and widely applicable research into various content-focused subject areas, or duplicate the descriptive and outreach efforts for areas with multimedia holdings, while fields like "women's, children's, medical, and intellectual history" remain poorly documented.⁴⁸ Cook compares such devotion to the development of the medium itself as being akin to "If the textual divisions were similarly preoccupied with the format of the records they collect, then they would devote significant time, professional skill, and acquisition and conservation dollars to document the history of quills, typewriters, letterhead designs, and handwriting styles." He is careful to emphasize, however, that "Documenting the history of the medium itself—the medium is the message—is dangerous not because the material collected is insignificant, but because of the isolation it symbolizes and invites."⁴⁹ This isolation has the effect of limiting the usefulness of

⁴⁶ Richard Dancy, "RAD Past, Present, and Future," *Archivaria* 74 (Fall 2012), pp. 29-30.

⁴⁷ Cook, "The Tyranny of the Medium," 143.

⁴⁸ *Ibid.*, 145.

⁴⁹ *Ibid.*, 144.

media records by making it more difficult to find pertinent records and to coordinate efforts across the various sections of the institution. Consequently, he argues for either better coordination among the various media divisions of PAC, or a “restructuring of our archives in a manner consistent with the principle of provenance.”⁵⁰ A preoccupation with the differences in the physical format of records should not impede the application of “first principles of archival theory, such as arrangement by provenance.”⁵¹

Cook’s essay provoked two responses from his colleagues at the Public Archives of Canada. In defending the separation of archival units into media specializations, Andrew Birrell, the Director of the National Photography Collection at PAC, accused Cook of “tyrannical and fundamentalist application of the principle of provenance” and “an attenuated view of what constitutes historical significance and documentary evidence.”⁵² He argued that there were “inherent differences in the various media of communication” and that these differences matter not simply in terms of preservation practices, but also in terms of a more aggressive approach to appraisal and acquisition, for “Not all media can fit the textual tradition of archival handling. Active collecting, as opposed passive accepting, demands a specialist not a generalist.”⁵³ Birrell is right to point out the textual basis for traditional archival theory, a fact to which archival theory is sometimes blind. But, in a willful misreading, for which Cook understandably takes him to task in a fierce rebuttal published two issues later,⁵⁴ Birrell also accuses Cook “looking for a mirror image of reality or ‘factual’ information.” Rather than pursuing the question of the difference that media formats make to the kind of documentation archival records provide and how it should be understood, Birrell appeals only to the bland truism that “All archival media are

⁵⁰ Ibid., 148.

⁵¹ Ibid.

⁵² Andrew Birrell, “The Tyranny of Tradition,” *Archivaria* 10 (Summer 1980): 252.

⁵³ Ibid., 251.

⁵⁴ Terry Cook, “Media Myopia,” *Archivaria* 12 (Summer 1981): 146-157.

concerned primarily with the product of the mind behind the instrument, not with the mute instrument that was used.”⁵⁵ In other words, the bias in communication is limited to the filters found in other mind, not in the medium itself, which is taken to be only a “mute” instrument or neutral carrier.

In the other response to Cook’s article published in *Archivaria*, a group of sound archivists found themselves in sympathy with Cook, even though he represented “their supposed adversary.”⁵⁶ Their reservations about media separation within archival institutions chime with a number of Cook’s points about the negative consequences of this organizational structure, and the ways it can impede various archival activities, from acquisition to reference. Most memorably, the sound archivists provide a vivid description the consequences of media separation for researchers:

In our own Sound Archives in Ottawa, where buildings and highways separate us physically from the principle reference areas of the Public Archives of Canada, we are often faced by a researcher who comes to us in the last half hour of his three day visit to the main building, looking to scurry away a few nuggets to enliven his presentation. He may find to his amazement that there is a collection of recordings in his particular area of interest. The researcher will declare his surprise at our existence, for he only learned about us by an accidental off-hand comment in another media division. He will look through our indexes and

⁵⁵ Birrell, “The Tyranny of Tradition,” 251.

⁵⁶ Ernst J. Dick, et al., “Total Archives Comes Apart.” *Archivaria* 11 (Winter 1980-81): 224.

begin to tear his garments in sorrow that he had not reached us earlier.⁵⁷

Even with respect to preservation, however, the sound archivists worry that separation by media risks cultivating “an artefact orientation to archival documents,” in which “information becomes secondary to the physical document itself.”⁵⁸ They find that this foregrounding of media separation serves no one very well, and, as archivists, they are concerned about the mystique of authority that stems from their technical expertise, while at the same time commenting that their judgment is generally not valued in relation to broader archival concerns. Sound archivists tend to be treated as “rarefied technicians with only one string on our bow, excessively deferred to should their particular media come up and largely ignored in every other matter.”⁵⁹ They agree with Terry Cook that, while perhaps necessary to facilitate certain activities, the institutional practice of media separation should prompt greater self-consciousness about archival theory and methods and their relationship to knowledge.

⁵⁷ Ibid., 226.

⁵⁸ Ibid., 225.

⁵⁹ Ibid., 227.

Conclusion

It is long past time to follow through on Terry Cook's critique of the place of media such as sound recordings in late twentieth-century archives and the PAC's sound archivists' favourable response to it. Little has been done by archivists in subsequent years to move beyond the assumptions that dominated late nineteenth-century and twentieth-century approaches to sound recordings. This thesis attempts to revive that discussion. In light of recent critical approaches to media and the history of sound reproduction, it is difficult to approach recorded sound as the supreme archival record it was thought to be at its invention and through much of the twentieth century. That traditional view, however, was informed by and reinforced the conventional archival sense of what constituted a record and what it meant to record an activity. Indeed, as sound initially appeared to some to offer a better record of human thought than writing, it implied that ever more accurate and reliable records were always achievable. Thus sound recordings were readily adopted by prominent archival thinkers of the early twentieth century who had a formative influence on the ideas and actions of the archival profession. But that confidence in the unimpeachable evidential quality of sound recordings also meant that their unavoidable technical complexity compared to textual media could easily emerge as the primary archival concern with respect to audio records. This technical complexity has also hindered access to sound recordings held in archives. Together, these factors placed sound records within the compass of archival thought and work, but on its margins. Technically, administratively, and as a source of useful information, sound recordings came to be isolated within archival institutions, and this isolation, in turn, allowed audio records to fall away from serious archival consideration, especially in terms of their problematic relationship to provenance.

Cook drew attention to this problem in his 1979 critique of the segregation of media records at the Public Archives of Canada, which he felt undermined key archival concepts such as provenance. Subsequently, Joan Schwartz, Joanna Sassoon and other photo-archivists have developed a sophisticated model for bringing a provenance-based archival approach to photographic records by emphasizing the social and historical dimensions of the origins and characteristics of photographs and visual media more generally. Over the same time period, the questions raised by sound media have suffered from comparative neglect, at least insofar as serious theoretical inquiry is concerned. Nevertheless, the recent emergence of the interdisciplinary field of sound studies potentially offers valuable insights through its explorations of the historical contingencies and shifting social significance of sound recordings.¹

The transition to digital sound technologies is another factor in the mix of forces and issues to consider. It creates a new emphasis on the technical aspects of preservation, but also on the appeal made here for a new socio-historical approach to sound recordings by archivists. Heightened awareness through the work of Derrida in *Archive Fever* and Sterne on the MP3 of the way in which a medium shapes understanding of the information it conveys in given historical contexts means that preservation is no longer simply a technical matter. It is not simply about sustaining a physical object and the information it carries but of preserving understandings of the object as a socio-historical technical entity. It is about conveying to users our best understanding of what a given technology of origin, copying, and playback allows, limits, or even effaces. And the increasing access to archival sound recording that digital

¹ Sound studies are not quite a formally defined discipline but what Jonathan Sterne describes as an “interdisciplinary ferment in the human sciences that takes sound as its analytical point of departure or arrival.” Nevertheless, the appearance in the last decade and a half of collections such as *The Sound Studies Reader*, *The Auditory Culture Reader*, *Hearing History: A Reader*, and *Hearing Cultures: Essays on Sound, Listening and Modernity* implies that sound studies have achieved at least a small degree of institutional consolidation. See Jonathan Sterne, “Sonic Imaginations,” *The Sound Studies Reader*, edited Jonathan Sterne (London: Routledge, 2013): 2.

communication allows means that users of these records ought to be made aware of these issues – or of how social, historical, and technological factors shape what they can know from the digital record.

A new energy is now needed to contextualize sound recordings in these ways. This thesis is a call and argument for this further work as a kind of prologue to it.

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