

**RECONNECTING MIND AND MATTER:
MATERIALITY IN ARCHIVAL THEORY AND PRACTICE**

By

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ABSTRACT

This thesis considers the assumptions and beliefs of the archival profession to reconceptualize how materiality is related to contextuality, and thereby reveal the “mind” within their material (or immaterial) form and reconnect records’ materiality with their archival value. It begins by describing how the materiality of archival records goes beyond physical form or material composition to include connections with the non-material processes which have shaped records, such as their relationships and associations with people, events, places of origin and other objects. As such, records are historical evidence of actions arising from within particular contexts, and remain participants in present human activity, acting as sensory connections to past human activity. Recognizing this evidential role for materiality enables fuller understanding of the contexts which produced particular records, and more careful consideration of how different representations of records shape both the questions that can be asked of records and the stories the records can tell.

In “traditional” archival theory, the materiality of records has usually been assumed to be incidental to, and largely disconnected from, their “intellectual” or “information” value, but over the last three decades archival theory has been re-oriented around the concept of records as evidence of the dynamic contextual milieu of their creation. This contextualist shift in understanding records supports an increased and overt acknowledgement of materiality as integral to archival value: materiality is integral to context, content and structure, which together define records as records, and records as

evidence. Materiality provides unique physical and sensory information about records' context of creation and ongoing use, as well as information about the written, image or aural content conveyed by the records.

The thesis goes on to outline the inadequacy of current archival practice for addressing and protecting the evidential possibilities within records' materiality. These practices have not developed to fully reflect the contextualist perspective and to support access to, or preservation of, materiality as part of the preservation of archival value. If only content is conceived to carry value, then the meanings embedded in the materiality of records will not routinely be appraised, documented, or considered in other archival functions or management decisions. Methodologies cited as best practices in mainstream archival preservation literature are object-oriented rather than context-oriented: they are focussed on managing the longevity of the individual material components of records without consideration for the relationship between materiality and archival value. By attempting to manage matter separately from the mind behind their creation, the evidential possibilities of records' materiality – and, by extension, their archival value – is at risk of loss. The thesis concludes with suggestions for adjustments to archival practices to bring them into alignment with the goal of preserving those aspects of records which contribute to their archival value, and reconnecting mind with matter.

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INTRODUCTION

TOUCHING THE PAST

And I find something – and maybe it's based upon this chance discovery of that one document by the magistrate recording something from my past – there was something special about that piece of paper. It wouldn't have been the same if I had seen it on a transcript, an electronic transcript, saying exactly the same things. It was the knowledge at that moment that magistrate had set that record of what I'd said. There was something of being in touch with real history that is remarkable, that is special, and even the most fevered of archivists,... you give them a document with handwriting by Nelson Mandela when he was in prison and ... they go ballistic.¹

I felt a physical shock. I was holding Virginia Woolfe's suicide note. I lost any bodily sense, felt I was spinning into a vortex, a connection that collapsed the intervening decades. This note wasn't a record of an event – this was the event itself.²

Newspapers and newsmagazines – media which receive rapid and acute feedback on what captures the interest of the public – frequently acknowledge the materiality of archival records through narrative descriptions or photographs. For instance, the *New York Times Magazine* ran a feature consisting of transcriptions from Susan Sontag's 1958-1967 diaries and notebooks in 2006.³ The cover photograph features one of the

¹ Albie Sachs, "Archives, Truth, and Reconciliation," *Archivaria* 62 (Fall 2006), 14. Sachs is referring to a complaint he made to a magistrate in which he described the brutal treatment he received while imprisoned during the Apartheid era in South Africa. He later found his complaint in a case file about himself in the National Archive in Pretoria. At the time this article was written, Sachs was a Justice of the South African Constitutional Court.

² Ted Bishop, *Riding with Rilke: On Motorcycles and Books* (Toronto: Penguin Group, 2005), 34-35. Bishop indicates he was already very familiar with transcriptions of the text of this letter; it was the direct encounter with the text in its original physical form that so moved him.

³ Susan Sontag, "On Self," *New York Times Magazine*, 10 September 2006: 52-58.

notebooks opened to two pages of text: a banal image whose intensity is enhanced by being rendered in sufficient resolution that the text of the writing on the opposite side of the paper can be discerned. The transcription text is accompanied by photographs of details from one notebook, with each photograph featuring no more than five letters so as to emphasize the texture of the paper fibres, the way the blue ruled lines had soaked into the paper, and the way the red manuscript ink crossed over those lines and over itself. These fragments of documents enhance the printed transcriptions of the handwritten text, but also remind us of the very human, very material, mark-making of their creator which continues to be embodied in the source records.

Military history is a popular topic in the media near Remembrance Day, and in 2006, the *Globe and Mail* devoted most of a section to featuring ten First World War artifacts from almost three thousand which had been offered by families for the Dominion Institute's Memory Project.⁴ While photographs and letters were specifically requested, a scrapbook, diaries and a tiny teddy bear were also submitted for the Project and represented as integral to these records. Each of the selected items was photographed in its entirety, showing the discoloured and damaged areas, while photographs of additional material were treated as illustrations and clearly cropped to remove extraneous information. In an accompanying article about the project, Rudyard Griffith of the Dominion Institute suggests that collective memory is rooted in the very physical presence of these humble personal records "in our attics, basements and garages" which have the ability to "reveal" and "speak."⁵

⁴ Rod Mickleburgh, Alan Freeman, Dawn Walton, Erin Anderssen, and Jill Mahoney, "The Stuff of War," *Globe and Mail*, 8 November 2006: F1, F4-8.

⁵ Rudyard Griffiths, "The Power of Collective Memory," *Globe and Mail*, 8 November 2006: F8. For similar stories and images of old photographs and documents see also Erin Anderssen,

The power of original material records to evoke or represent the past, to act as touchstones or time machines to aspects of the past, appears to strike a chord with writers and readers.⁶ Yet this continuing capacity for engagement, for communication across generations, is not explicitly considered when archival value is appraised, and may be actively obscured or destroyed in the course of such routine archival activities as description or representation. While the material “turn” has been considered in areas of the humanities such as anthropology and cultural studies, it has received little attention in archival studies.⁷

“Family of Fighters,” *Globe and Mail*, 10 November 2007: F1, F4-5; and Gordon Sinclair Jr., “Love and War,” *Winnipeg Free Press*, 10 November 2007: B1. The *Globe and Mail* recently featured daily transcriptions of David K. Hazzard’s Second World War letters home in “‘Dear Sweetheart:’ Letters Home from a Soldier,” *Globe and Mail*, 18 October 2008 to 20 December 2008. The series began with a three-page feature which included colour representations of many of the letters, also available at the website: <http://www.globeandmail.com>.

⁶ Other examples include an image of a stamped, annotated and redacted 1969 Royal Canadian Mounted Police report on a music festival organized by John Lennon, in Jim Bronskill, “The Ballad of John, Yoko and the RCMP,” *Globe and Mail*, 23 July 2007: A7; colour photographic images of the cover and several pages of Ronald Reagan’s presidential diaries indicating little hesitation in writing his thoughts, in Douglas Brinkley, “Reagan, Unscripted,” *Vanity Fair*, June 2007: 152-163 and 212-219; both a photographic image and text describing how Beethoven “fought his music onto the page,” in Edmund Morris, “Beethoven’s Paper Trail,” *New York Times*, 16 October 16 2005: sec. 4, 13; annotated and food-spattered recipe cards are discussed as personal records in, Julie Powell, “File of Dreams,” *New York Times Magazine*, 10 December 2006: 95-96; the on-going importance of tangible family correspondence for soldiers deployed in recent wars is discussed in Kenneth W. J. Lloyd, “Letters, Soldiers, the Scent of Violets,” *Globe and Mail*, 18 April 2007: A16; the significance of recording technologies to both the experiences and the uses of music are considered in Carl Wilson, “Don’t Re-shoot the Piano Player,” *Globe and Mail*, 25 June 2005: R8; in Anthony Tommasini, “Hard to be an Audiophile in an iPod World,” *New York Times*, November 25, 2007: AR 25, 30; and in Greg Bulum, “Long Live the LP: In the iTunes Era the Album Still Reigns Supreme,” *CBCNews.ca*, 13 December 2007, available at <http://www.cbc.ca/arts/music/lp.html>, accessed 17 December 2007; and the historical value of the “original mud stains” on “the founding document of the modern hate-speech movement” acquired by the Library of Congress is satirized in Gary Trudeau, *Doonesbury*, 21 August 2008, available at <http://wpcomics.washingtonpost.com/client/wpc/db/2008/09/21>, accessed 22 August 2008.

⁷ The First International Conference on the History of Records and Archives (I-CHORA), held in Toronto in 2003, included my presentation on the potential significance of the material composition and construction of records, and of the physical state of records as manifestations of the societal context of their creators, custodians and users, later published as Ala Rekrut, “Material Literacy: Reading Records as Material Culture,” *Archivaria* 60 (Fall 2005): 11-37. The

Canadian archivist-philosopher Hugh Taylor suggests that archives are

a branch of our heritage that is so often taken for granted, perhaps, because we see the documents we handle as simply providing reliable information in support of other material culture, and therefore materially ‘invisible’.... [B]ecause literacy objectifies and detaches us from what we read, information becomes almost rootless, floating away from the artifact in which it was anchored.⁸

On a similar note, in her 2003 Presidential Address to the Canadian Historical Association, Mary Vipond challenged historians to study the mass media as important sources for history, noting that her colleagues “continue too often to assume that the media by which [cultural] meanings are often transmitted need not to be factored into the analysis of cultural practices.”⁹

Archival theory has seen major shifts in the last twenty years. Chief among these is a shift in attention from the subject content of records to their functional context(s) of creation. Postmodern insights have challenged archivists to consider the long-term societal value of records in appraisal. Development of effective and active strategies for the preservation of electronic records has opened out discussion of what constitutes a record, and what constitutes archival value. In the early 1990s, Terry Cook called for the focus of the critical archival function of appraisal to “shift from the actual record to the conceptual context of its creation, from the physical artifact to the intellectual purpose

success of this paper triggered development of a session titled “Materiality, Meaning, and Metadata: The Importance of Physical Form” for the 2004 Conference of the Society of American Archivists, which featured papers by Joan Schwartz and Terry Cook in addition to an expanded version of my I-CHORA presentation. While a conference organizer told me that the session proposal was only narrowly approved, the attendance was standing room only, suggesting substantial interest in the topic. In spite of these now biennial I-CHORA events, little further work has been published on the materiality of archival records and its historical significance.

⁸ Hugh Taylor, “‘Heritage’ Revisited: Documents as Artifacts in the Context of Museums and Material Culture,” *Archivaria* 40 (Fall 1995): 9.

⁹ Mary Vipond, “The Mass Media in Canadian History: The Empire Day Broadcast of 1939,” *Journal of the Canadian Historical Association* 14 (2003): 8.

behind it, from matter to mind;”¹⁰ the title of this thesis references Cook’s influential essay “Mind Over Matter: Towards a New Theory of Archival Appraisal.” This thesis considers the assumptions and beliefs of the archival profession in order to reconceptualize how the actual physical materiality of records is related to this new contextuality. It is a work of archival theory, which reveals the mind within the material (or immaterial) forms of records and connects their materiality with their archival value, and goes on to argue that archival practice must be reassessed and improved accordingly.

Archives have long collected and managed the material objects which have functioned as records, and have often conceptually classified records by their physical forms, for instance as textual records, electronic records, photographs, maps, and so on. Physical form has been a subject of study in the diplomatic analysis of textual records, and in the analysis of many individually valuable graphic records such as maps and paintings – often following anthropological or connoisseurship models developed by museums. While historians and archivists have generally confined this study of physical form to establishing authenticity through identification of material construction, age, and provenance, the study of materiality (or material culture) extends beyond these object-centred concerns to deal with the societal context, or provenance, of artifacts. The material turn in the humanities has seen only limited adoption in the fields of history and archives, although archives are a traditional source for historians. Chapter One of this thesis will introduce the concept of materiality as applicable to archival records. The first half of the chapter will focus on how historians have used and valued the materiality of records, and how museums have explored aspects of human cognition and sensory

¹⁰ 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.

engagement and interpretation through the visual, aural, and kinetic qualities of records. The second half will analyze in some detail two examples of records from the holdings of the Archives of Manitoba, using their materiality to show the records as by-products or traces of their contexts of creation and re-creation by considering the choices of their creators, the functions they were intended to serve, and the technologies available to their creator(s), and how they have been further shaped by their users and custodians through time to the present. To demonstrate both the potential depth and breadth of information available within a very small range of primary research material, as well as demonstrating archival theory and practice, the two examples will be deconstructed further in italicized sections of the subsequent chapters

Chapter Two will review work by major archival theorists of the last century to consider the shifting place of materiality in archival theory. Work by Canadian archivists figures prominently, reflecting Canadian leadership in development of international archival theory and practice. One of the examples from the holdings of the Archives of Manitoba will be used to examine how some of the theories discussed can be applied, and to consider how archival theory shapes records and the aspects of records available for research use. Conceptual tools developed primarily for the identification and preservation of the essential elements of “immaterial” electronic records will be applied back to material records to increase our understanding of the integral roles played by materiality in the preservation of archival value.

Having established that the materiality of records is integral to their archival value, Chapter Three will use the second example from the holdings of the Archives of Manitoba to look at how the materiality of records has been treated in common archival

practices associated with their acquisition, physical arrangement, description, visual representation, and preservation. The scope and usage of the term “preservation” and the question of what aspects of records are being preserved through these practices reveals gaps between postmodern archival theory regarding the value of contextuality and current archival practice.

The thesis concludes with a summary of the main arguments and offers some cross-disciplinary examples and ideas for developing archival practices which are more effectively aligned with twenty-first century archival theory, with the goal of preserving those aspects of records which contribute to their archival value. The intellectual purpose, the context of the records creation, can then be clearly linked to the records materiality, or immateriality, and thus enhance the on-going management of records by archivists and the understanding and use of the records by society.

CHAPTER ONE

MATERIALITY AND ARCHIVAL RECORDS

Archival Records and Material Culture

In his prefatory essay to *A Glossary of Archival and Records Terminology* (2005), the third iteration of this glossary by the Society of American Archivists (SAA), editor and compiler Richard Pearce-Moses reflects on the extent of changes to the archival lexicon during the previous ten years, when core archival concepts were reconsidered and redefined. Unlike the authors of the earlier SAA glossaries, he takes a generally postmodern stand, seeking to be descriptive rather than prescriptive, describing current usage while acknowledging the range of sometimes contradictory meanings, and conceding the extent to which this project became a personal exercise and reflection. This nuanced exploration of the shifting meanings required Pearce-Moses to “engage in the larger dialog of the archival profession.”¹ This *Glossary* is therefore a good representation of the terminology currently used within the dominant culture of North American archives, and can serve as a departure point for this thesis.

¹ Richard Pearce-Moses, *Glossary of Archival and Records Terminology*, Society of American Archivists, 2005, available at www.archivists.org/glossary/index. The essay, “The Archival Lexicon,” is available at <http://www.archivists.org/glossary/Lexicon.asp> (accessed 4 August 2007).

According to this *Glossary*, archival records² are “Materials created or received by a person, family, or organization, public or private, in the conduct of their affairs that are preserved because of the enduring value contained in the information they contain or as evidence of the functions and responsibilities of their creator.”³ The entry for “material” in this *Glossary* notes that the word is used as a broad term to encompass any “items that an archives may collect,” including those which are “tangible (of matter) or virtual (electronic).” Records can be distinguished from non-records because they are related to the “conduct of ... affairs,” presumably of the business of business, or of government, or of living one’s life. The event which separates archival records from other kinds of records is the appraisal of “enduring value” which makes them worthy of preservation.

This kind of definition focuses on records as a passive and finite by-product of a completed action, considering only records creation or collection and not what they were designed and preserved to do or why they remained available for appraisal. Pearce-Moses himself takes a broader view in his essay, suggesting that the fundamental and enduring function of records is to enable society to “fix memory for future reference.”⁴ Archival educator Tom Nesmith has used postmodern insights to reconceptualize archival work and takes an even broader view: “A record is an evolving mediation of understanding about some phenomena – a mediation created by social and technical

² In “The Archival Lexicon,” Pearce-Moses includes an extended discussion of difficulties in defining the most core of concepts: “archives” and “records.” Reflecting some of these difficulties, the actual glossary definitions for these separate terms do not cross-reference logically with the compounded “archival records.” For clarity, I have used “archival records” as a starting point for exploring all these terms.

³ Pearce-Moses, http://www.archivists.org/glossary/term_details.asp?DefinitionKey=292 (accessed 4 August 2007).

⁴ Pearce-Moses, “The Archival Lexicon.”

processes of inscription, transmission, and contextualization.”⁵ Records are therefore “products of open-ended processes of knowing, and participate in processes of knowing as active agents in them.”⁶ It follows that archivists must actively consider the processes of knowing which provide the context for understanding records through time in order to determine whether they have sufficient value for preservation in an archival context.

Material Culture and Related Material Turns

“Material culture” is a term used mainly by anthropologists for objects which have been made or modified by human beings. Since this is also a definition of “artifacts,” the difference is one of emphasis. The term “artifacts” stresses individual objects, often privileging the objects in isolation from their cultural contexts. Material culture study emphasizes the meanings which can be derived from the interrelationships of objects within their cultural contexts or, in the case of archaeology, within their physical contexts. Material culture theory assumes that “human-made objects reflect, consciously or unconsciously, directly or indirectly, the beliefs of the individuals who commissioned, fabricated, purchased, or used them and, by extension, the beliefs of the larger society to which these individuals belonged.”⁷ Archaeologist Leland Ferguson suggests “material culture is not

⁵ Tom Nesmith, “Still Fuzzy, But More Accurate: Some Thoughts of the ‘Ghosts’ of Archival Theory,” *Archivaria* 47 (Spring 1999): 145.

⁶ Tom Nesmith, “Reopening Archives: Bringing New Contextualities into Archival Theory and Practice,” *Archivaria* 60 (Fall 2005): 261. For a detailed discussion and literature review regarding definitions of records, see Geoffrey Yeo, “Concepts of Record (1): Evidence, Information, and Persistent Representations,” *American Archivist* 70 (Fall/Winter, 2007): 315-343.

⁷ Jules David Prown, “The Truth of Material Culture: Fact or Fiction?,” in *History From Things: Essays on Material Culture*, eds. Steven Lubar and W. David Kingery (Washington and London: Smithsonian Institution Press, 1993), 1. In Canada, “material culture” is used interchangeably

merely a reflection of human behavior; material culture is part of human behavior.”⁸ It follows that intangible cultural expressions are equally a way in which humans shape their environments and also fall within the scope of material culture.⁹

While broadly classifiable as a branch of anthropology, the study of material cultural is part of a larger material turn in the humanities.¹⁰ “Materiality” is another closely related term which implies a higher level of agency for the objects in current as well as past interactions, and is more frequently used outside anthropology. Recent conferences indicate the range of applications for this study. The Southwestern Anthropological Association, for instance, has issued a call for submissions that

with “material history,” and the term “material life” is also occasionally used, according to Thomas J. Schlereth, “Material Culture or Material Life: Discipline or Field? Theory or Method?,” in *Living in a Material World: Canadian and American Approaches to Material Culture*, ed. Gerald L. Pocius (St. John’s, NF: Institute of Social and Economic Research, 1991), 232. For a summary of ideas and approaches in material culture studies, see: “Material Culture Studies in America, 1876-1976,” in *Material Culture Studies in America*, ed. Thomas J. Schlereth (Nashville, TN: The American Association of State and Local History, 1982), 1-75.

⁸ Leland Ferguson, *Historical Archaeology and the Importance of Material Things* (Columbia, S.C.: Society for Historical Archaeology, 1977), 6, quoted in Schlereth, ed., *Material Culture Studies in America*, 3. For two more recent sources regarding material culture studies, see Carl Knappett, *Thinking Through Material Culture: An Interdisciplinary Perspective* (Philadelphia: University of Pennsylvania Press, 2005); and Christopher Tilley et al., eds., *Handbook of Material Culture* (London: SAGE Publications, 2006).

⁹ See Susan Pearce, *Museums, Objects, and Collections: A Cultural Study* (Washington, D.C.: Smithsonian Institution Press, 1993), 5.

¹⁰ Jacques Derrida’s *Archive Fever: A Freudian Impression* (Chicago: University of Chicago Press, 1996), and his notions of “textuality” has influenced much of the more recent work in the humanities. Descriptions of research work and records in archives appear in work such as Carol Steedman, *Dust: The Archive and Cultural History* (Manchester, UK: Manchester University Press, 2001); and Liam Buckley, “Objects of Love and Decay: Colonial Photographs in a Postcolonial Archive,” *Cultural Anthropology* 20 (May 2005): 249-270. Derrida has influenced some archivists as well, and others have noted the changing nature of scholarly research in the wake of postmodernism; see for instance Brien Brothman, “Declining Derrida: Integrity, Tensegrity, and the Preservation of Archives from Deconstruction,” *Archivaria* 48 (Fall 1999): 64-88.

mine material culture for its epistemological limits and possibilities; for its embodiment of social and economic relations – both past and present; for its long and exceptional career as a marker of cultural identity and social distinction – generational, gendered, global, national, religious, and occupational; for its critical role in corporate branding, cultural imperialism, consumptive excess; and for its singular ability to express aesthetic and techno-scientific tradition and innovation, future and past – from iPods to IKEA and Clovis points to WMDs (however intangible and elusive).¹¹

Another conference, hosted by the Geography Department at Durham University, suggests that the relationship between visibility and materiality as modes of representation are “about social meaning and practice; where identity, power, space, and geometrics of seeing are approached here through a grounded approach to material technologies, design and visual research, everyday embodied seeing, labour, ethics and utility.”¹² Even a conference on Medieval and Early Modern books welcomed submissions on “productions and performances of culture, including architecture, art, sculpture, music, theatre and design.”¹³

Cross-disciplinary perspectives are frequently published in volumes of essays on material culture; for example, a collection of essays entitled *History From Things*¹⁴ includes papers by psychologist Mihaly Csikszentmihalyi and folklore scholar Michael Owen Jones, with topics ranging from specific industrial, domestic and “artistic”

¹¹ Matthew Gilmore, “Mining Material Culture” Call for Papers, Listserv posting 26 December 2006, available at <http://www.h-net.msu.edu/cgi-bin/logbrowse.pl?trx=vx&list=H-Material-Culture&month=0612&week=d&msg=CbyZpgG0HFDrmQzgg&user=&pw=> (accessed 29 December 2006).

¹² “Visibility/Materiality: Reviewing Theory, Method and Practice” Call for Papers, available at <http://www.geography.dur.ac.uk/Conf/Default.aspx?alias=www.geography.dur.ac.uk/con/visibilitymateriality> (accessed 30 July 2008).

¹³ “Codices and Communities: Material, Book and Print Culture and their Medieval and Early Modern Contexts” Call for Papers, available at <http://fmrsi.wordpress.com/2008/07/17/cfp-codices-and-communities-material-book-and-print-culture-and-their-early-modern-contexts-university-of-alberta-4-5-december-2008/> (accessed 28 August 2008).

¹⁴ Lubar and Kingery, eds., *History From Things*. A companion volume is David Kingery, ed., *Learning From Things: Method and Theory of Material Culture Studies* (Washington and London: Smithsonian Institution Press, 1995).

technologies, garden design, and buildings and landscapes as “documents.” Material culture serves as evidence for the history of commerce in *The Social Life of Things*,¹⁵ in *Material Culture and Mass Consumption*,¹⁶ and in “Exhausted Commodities: The Material Culture of Music.”¹⁷ Material culture is used as evidence of human cognition and social organization in publications such as *Cognition and Material Culture: the Archaeology of Symbolic Storage*,¹⁸ and for examination of human interaction in *The Material Life of Human Beings: Artifacts, Behavior, and Communication*.¹⁹ Sociologist Rod Bantjes treats the rural Saskatchewan landscape as “both an artefact of politics and as an artefact with political effects.”²⁰ Computer science has also experienced a material turn, examining human connection and interaction with “boundary objects,” and the related implications for computer design, notably in publications such as *Things That Make Us Smart: Defending Human Attributes in the Age of the Machine*,²¹ and *The Social Life of Information*,²² and more recently *Evocative Objects: Things We Think*

¹⁵ Arjun Appadurai, ed., *The Social Life of Things: Commodities in Cultural Perspective*, (Cambridge: Cambridge University Press, 1986).

¹⁶ Daniel Miller, *Material Culture and Mass Consumption* (Oxford: Basil Blackwell Ltd., 1987). See also Daniel Miller, ed., *Materiality* (Durham and London: Duke University Press, 2005).

¹⁷ Will Straw, “Exhausted Commodities: The Material Culture of Music,” *Canadian Journal of Communication* [Online], 25(1), available at <http://www.cjc-online.ca/viewarticle.php?id=571> (accessed 30 July 2008). See also Will Straw, “The Thingishness of Things,” *In[]visible Culture: An Electronic Journal for Visual Studies* 2, available at http://www.rochester.edu/in_visible_culture/issue2/straw.htm (accessed 13 April 2006).

¹⁸ Colin Renfrew and Chris Scarre, eds., *Cognition and Material Culture: The Archaeology of Symbolic Storage* (Cambridge: McDonald Institute for Archaeological Research, 1998).

¹⁹ Michael Brian Schiffer with Andrea R. Miller, *The Material Life of Human Beings: Artifacts, Behavior, and Communication* (London and New York: Routledge, 1999).

²⁰ Rod Bantjes, *Improved Earth: Prairie Space as Modern Artefact, 1869-1944* (Toronto: University of Toronto Press, 2005), 12. Similar concerns also appear in William J. Turkel, *The Archive of Place: Unearthing the Pasts of the Chilcotin Plateau*, (Vancouver, Toronto: UBC Press, 2007).

²¹ Donald A. Norman, *Things That Make Us Smart: Defending Human Attributes in the Age of the Machine* (Cambridge, MA: Perseus Books, 1993).

²² John Seely Brown and Paul Duguid, *The Social Life of Information* (Boston: Harvard Business School Press, 2000). This book includes the original account of a frequently cited story about a

With.²³ Popular histories of common record-making technologies include such books as *The Pencil: A History of Design and Circumstance*²⁴ and *The Iron Whim: A Fragmented History of Typewriting*;²⁵ conferences are devoted to fonts,²⁶ and a documentary film has even been made about the typeface Helvetica.²⁷

Many scholars are also examining written texts as artifacts.²⁸ While analytical bibliography has long been a part of rare-book librarianship, more recent book scholarship has taken a more holistic perspective.²⁹ The Society for the History of Authorship, Reading and Publishing (SHARP) is a global network of book historians which publishes the journal *Book History*,³⁰ the Centre for the History of the Book is an “international and interdisciplinary centre for advanced research into all aspects of the

medical historian who traced the progress of cholera in the eighteenth century by smelling contemporary archival records for traces of the vinegar which had been used as a disinfectant (173-4).

²³ Sherry Turkle, ed., *Evocative Objects: Things We Think With* (Cambridge, MA and London: The MIT Press, 2007).

²⁴ Henry Petroski, *The Pencil: A History of Design and Circumstance* (New York: Alfred A. Knopf, 1999).

²⁵ Darren Wershler-Henry, *The Iron Whim: A Fragmented History of Typewriting* (Toronto: McClelland & Stewart Ltd., 2005).

²⁶ Vanessa Farquharson, “A Yearn to Kern: ‘Fonts are the Clothes that Words Wear,’” *National Post*, July 23, 2008, 1B.

²⁷ Richard Blackwell, “A Whole Movie About a Typeface?,” *Globe and Mail*, April 18, 2007, 1R.

²⁸ See for example Robin Myers, Michael Harris and Giles Mandelbrote, eds., *Owners, Annotators and the Signs of Reading* (New Castle DE and London: Oak Knoll Press & The British Library, 2005). Hands-on experiences with rare-books and documents in university special collections are increasingly being integrated into undergraduate history programs; see Roger Mummert, “Handle This Book!,” *New York Times, Education Life*, 30, 2 November, 2008.

²⁹ In 1990 archivist and educator Richard Cox suggested that “the analytical bibliographer definitely brings a unique perspective of evidence ... that would be an asset in the undertaking of larger documentary projects While the historian and archivist might first focus on the informational content of the publications, the analytical bibliographer will stretch these colleagues to consider the form of the information and perhaps suggest criteria that can be applied to ensure that information provided by the form will not be lost.” Richard Cox, “Analytical Bibliography and the Modern Archivist: A Commentary on the Similarities, Differences, and Prospects for Cooperation,” in his *American Archival Analysis: The Recent Development of the Archival Profession in the United States* (Metuchen, New Jersey and London, The Scarecrow Press, Inc., 1990). I have not found evidence in the literature to suggest Cox’s suggestions were taken up by archivists.

³⁰ See SHARP website at <http://www.sharpweb.org> (accessed 24 August 2007).

material culture of the text,”³¹ and the University of Edinburgh offers a postgraduate degree program in Material Cultures and the History of the Book.³² The British Library has hosted a lecture series by book conservator and educator Nicholas Pickwoad entitled “Reading Bindings: Bindings as Evidence of the Culture and Business of Books.”³³ The Modern Language Association has issued a *Statement of the Significance of Primary Records*, which appreciates the usefulness of representations, but reinforces the on-going need for access to the original tangible text as the primary research source.³⁴ Literary theorist N. Katherine Hayles has proposed “media-specific analysis” to reveal the role of materiality in literary texts since the “printed literature was widely regarded as not having a body, only a speaking mind.”³⁵ She suggests that materiality “is not merely an inert collection of physical properties but a dynamic quality that emerges from the *interplay* between the text as a physical artifact, its conceptual content, and the interpretive activities of readers and writers.”³⁶ Seventeen papers regarding personal encounters in archival research, mainly by professors of rhetoric, are featured in *Beyond the Archives*:

³¹ Centre for the History of the Book website at <http://www.hss.ed.ac.uk/chb/> (accessed 24 August 2007).

³² See program description at website at http://www.hss.ed.ac.uk/chb/postgraduatestudy_ps.htm (accessed 24 August 2007).

³³ One lecture considered the presence of deckle edges of paper (the thin, uneven edges created by the edge of the papermaking mould) as evidence of book trade economics, another used the marks left by bookbinding tools to trace working methods of individuals within a bookbinding workshop. See announcement in Conservation Distribution List archives: <http://palimpsest.stanford.edu/byform/mailling-lists/cdl/2008/1017.html> (accessed 24 October 2008).

³⁴ Modern Language Association of America, *Statement on the Significance of Primary Records*, available at <http://palimpsest.stanford.edu/byorg/mla/mlaprim.html> (accessed 28 September 2006).

³⁵ Katherine N. Hayles, “Print is Flat, Code is Deep: The Importance of Media-Specific Analysis,” *Poetics Today* 25 (Spring 2004): 70.

³⁶ *Ibid.*, 72. Hayles is one of several scholars considering the new medium of electronic hypertext. For an overview of pre-hypertextual composition theory, see Jean Mason, *Composition Theory*, available at https://tspace.library.utoronto.ca/citd/JeanMason/context/theories/composition_theory.html (accessed 1 May 2007).

Research as Lived Process.³⁷ Legal historian Cornelia Vismann has discussed how the law and paper-filing practices have mutually shaped one another.³⁸ Ethnographers have analyzed the design and use of forms to document human interactions in *Documents: Artifacts of Modern Knowledge*;³⁹ one essayist notes “Documents and other artefacts must be understood as elements of a conversation. And just as hospital documents are not transparent to outsiders unfamiliar with medical vocabulary, so family documents must be understood in the context of their creation and use.”⁴⁰

In a review essay featuring several books offering new perspectives on visual material, archivist Joan Schwartz singles out anthropology as a “field that has amassed a substantial literature not only on the use of photographs as historical evidence, but more importantly on the significance of context for understanding the production, function, and meaning of photographs.”⁴¹ Anthropologist Elizabeth Edwards has critically examined the use of photographs in constructing anthropological narratives in her book *Raw Histories: Photographs, Anthropology and Museums*,⁴² and this work is developed further in *Photographs Objects Histories: On the Materiality of Images*, written with historian Janice Hart. In their introductory essay, Edwards and Hart suggest that “Materiality is related to social biography,” and that objects “should be understood as

³⁷ Gesa E Kirsch and Liz Rohan, *Beyond the Archives: Research as Lived Process* (Carbondale, IL: Southern Illinois University Press, 2008).

³⁸ Cornelia Vismann, *Files: Law and Media Technology* (Stanford CA: Stanford University Press, 2008).

³⁹ Annelise Riles, ed., *Documents: Artifacts of Modern Knowledge*, (Ann Arbor, MI: The University of Michigan Press, 2006).

⁴⁰ Carol A. Heimer, “Conceiving Children: How Documents Support Case versus Biographical Analyses,” in *ibid.*, 107.

⁴¹ Joan Schwartz, “Negotiating the Visual Turn: New Perspectives on Images and Archives,” *American Archivist* 67 (Spring/Summer, 2005): 120.

⁴² Elizabeth Edwards, *Raw Histories: Photographs, Anthropology and Museum*. (Oxford and New York: Berg, 2001).

belonging in a continuing process of production, exchange, usage and meaning. As such, objects are enmeshed in, and active in, social relations, not merely passive entities in these processes.”⁴³

Historians and Materiality

Archival records are a subset of the universe of material culture, regardless of their media or tangibility. Archival records are the most common objects studied by historians, but how often do they extend this study beyond written text and surface images to the materiality of the records themselves? The materiality of records is anchored in the social circumstances surrounding their physical creation and is manifest in at least two ways: the physical “background” upon which the written text or images appear, and the successive interactions between records and their multiple users across time. The materiality of records, therefore, is perhaps the most primary of sources regarding the conditions of the records’ own creation. Forensic examination of the physical composition of record (e.g. paper, photographic emulsions, ink, fasteners, folds, broken sprockets, fingerprints and other stains) is one obvious way in which materiality is used as evidence.

Prior to the 1970s, analysis of physical evidence was a common historical practice, although the emphasis was on determining the authenticity of written documents using tools from “auxiliary disciplines” such as linguistics, palaeography, sigillography,

⁴³ Elizabeth Edwards and Janice Hart, “Introduction,” in *Photographs Objects Histories: On the Materiality of Images*, eds. Elizabeth Edwards and Janice Hart (New York: Routledge, 2004), 4.

codicology, heraldry and diplomatics.⁴⁴ These tools were mainly developed for analysis of Western legal, judicial and Church-created documents and, therefore, of limited relevance to the much broader and diverse records underpinning the developing field of social history. In *A Guide to Historical Method*, published in 1969, R.J. Shafer indicated that additional tools from anthropology might be used by historians for analysis of “mute” physical remains,⁴⁵ but he appears not to consider the possibility that written documents, also, might “speak” about both their creators and their past users through their materiality as well as their written text. Guides to historical methods published in the past thirty years have generally taken less technical or physical and more theoretical and interdisciplinary approaches to analyzing sources.⁴⁶ This shift toward regarding records as social constructions appears to have distanced historians from records as physical phenomena, and neglects that material artifacts are intellectual as well as physical constructions.⁴⁷

⁴⁴ Robert Jones Shafer, *A Guide to Historical Method* (Homewood, IL: The Dorsey Press, 1969), 111-118; Martha Howell, and Walter Prevenier, *From Reliable Sources: An Introduction to Historical Methods* (Ithaca, NY and London: Cornell University Press, 2001), 56.

⁴⁵ Shafer, 43-57.

⁴⁶ The book by Howell and Prevenier cited above is a relatively recent exception in that it includes the traditional tools as well as the newer interdisciplinary approaches, but it does not explicitly discuss materiality of archival records as evidence. Newer scholarship approaches are discussed in Peter Lambert, and Phillip Schofeld, eds., *Making History: An Introduction to the History and Practices of a Discipline* (London and New York: Routledge, 2004); Gabrielle Spiegel, ed., *Practicing History: New Directions in Historical Writing after the Linguistic Turn* (London and New York: Routledge, 2005); and John Tosh with Seán Lang, *The Pursuit of History: Aims, Methods and New Direction in the Study of Modern History*, 4th edition (Harlow, UK: Pearson Education Limited, 2006).

⁴⁷ Historian Tim Hitchcock has suggested that postmodernism and poststructuralism have resulted in a focus on words and language, effectively excluding the experiences of the marginalized individuals, who may not have created the kinds of written records which appeal to those influenced by these academic trends. Tim Hitchcock, *Down and Out in Eighteenth-Century London* (London and New York: Hambledon and London, 2004), 238-239. Although she does not consider specific surviving artifacts, media historian Lise Gitelman has looked at “new” media technologies in their contemporary contexts to understand contemporary notions of representation in *Always Already New: Media, History, and the Data of Culture* (Cambridge,

In spite of this reduced attention to physical evidence, a recent survey of 173 Canadian historians indicates that 92 per cent preferred to use archival records in their original forms. In unprompted narrative responses to the question of why they preferred this format, thirty-one of the respondents cited ease of legibility; twenty-five cited authenticity, accuracy or reliability; twenty-three cited completeness. In addition:

Fourteen respondents noted a physical connection with the past or a greater sense of context when using the original format. ... [One] noted “Contextual features (condition, type of paper) that contribute to one’s understanding, (that is, aside from content as such), is missed often or masked in copying.” The importance the physical or spacial [sic] attributes of the original was highlighted by four respondents. One stated that “It provides the actual ‘texture’ as well as the actual ‘text’! This allows the user to reconstruct the full ‘sense’ of the document.”⁴⁸

The physical interactions with records described by these last survey respondents have little to do with the technical analyses of “traditional” historical methods noted earlier, but speak to a sensory engagement with the records as historical communications. Thus, in addition to conveying evidence through a technical, or forensic, analysis of tangible evidence (i.e. record materials, construction and condition), materiality can convey evidence through observation of personal sensory interactions and the responses it prompts.

The materiality of archival records is occasionally described by historians in more personal accounts of the research process, and in more interdisciplinary academic work.

In her introduction to *Archive Stories: Facts, Fictions, and the Writing of History*,

Antoinette Burton indicates her project stemmed from a “conviction that history is not

MA: The MIT Press, 2006). For related writing in this field, see also Geoffrey B. Pingree and Lisa Gitelman, eds., *New Media, 1740-1915* (Cambridge, MA: The MIT Press, 2003).

⁴⁸ Wendy Duff, Barbara Craig and Joan Cherry, “Finding and Using Archival Resources: A Cross-Canada Survey of Historians Studying Canadian History,” *Archivaria* 58 (Fall 2004): 66.

merely a project of fact-retrieval ... but also a set of complex processes of selection, interpretation, and even invention – processes set in motion by, among other things, one’s personal encounter with the archive”⁴⁹ She notes that historians rarely speak or write of “such contingencies ... though they are quite ready and even eager to tell their archive stories when asked.”⁵⁰ Burton feels these “archive stories” pose a risk to “the claims of objectivity which continue to underwrite the production of history.”⁵¹ Responding to results of a *Journal of American History* survey of historians, George H. Roeder notes that “None mentioned, and doubtless few received, guidance as to how to use nonwritten, nonnumeric sources, often essential for research on sensory experience.”⁵² He feels the sensory dimensions of history have also been overlooked in the past because they may not have seemed relevant to traditional political, military and intellectual history.⁵³

In contrast with academic history writing, popular histories regularly use descriptions of the materiality of records to engage readers. For instance Eric Larson, author of the bestseller *The Devil in the White City: Murder, Magic, and Madness at the Fair That Changed America*, explains in an author’s note:

I do not employ researchers, nor did I conduct any primary research using the Internet. I need physical contact with my sources, and there’s only one way to get it. To me every trip to a library or archive is like a small detective story. There are always little

⁴⁹ Antoinette Burton, ed., *Archive Stories: Facts, Fictions, and the Writing of History* (Durban and London: Duke University Press, 2005), 7-8. One of the essays in this volume shows how the author interprets the materiality of the conditions in which she find records in a Calcutta archives: “the haphazard nature of these piles of unkempt documents – unbound, wormy, dust, dog-eared – indicated the lack of concern the recent government of India has for colonial-era documents” Durba Ghosh, “National Narratives and the Politics of Miscegenation: Britain and India,” *ibid.*, 38.

⁵⁰ Burton, *ibid.*, 8.

⁵¹ *Ibid.*, 9.

⁵² George H. Roeder, Jr., “Coming to Our Senses,” *The Journal of American History* 81 (December, 1994): 1120.

⁵³ *Ibid.*, 1116.

moments on such trips when the past flares to life, like a match in the darkness. On one visit to the Chicago Historical Society, I found the actual notes that Prendergast sent to Alfred Trude. I saw how deeply the pencil dug into the paper.⁵⁴

Progressive museums recognize artifacts as the primary data of human activity, reflecting the society which produced them within their material composition, but “preservation of heritage objects is not an end in itself, but serves to maximize (over time) the access to the information encoded in them.”⁵⁵ Objects displayed in exhibitions enable visual access to viewers, and may be accompanied by text or demonstrations which provide some additional contextual information about their physical properties and how they fit into the exhibition’s theme. Museums may also act as research centres to enable comparative study of the materiality of their holdings.⁵⁶

Museums, which deal explicitly with objects and their interpretation, have also developed a substantial body of literature related to communication and learning theory

⁵⁴ Erik Larson, *The Devil in the White City: Murder, Magic, and Madness at the Fair That Changed America* (New York: Crown Publishers, 2003), 395. Describing one of many postcards Patrick Prendergast sent to state prosecutor A.S. Trude in 1892, Larson writes: “The card, like all the others, was four inches wide by five inches long, blank on one face, with postal insignia and a printed one-cent stamp on the other. In this time when writing long letters was everyday practice, men of normal sensibility saw these cards as the most crabbed of media, little better than telegrams, but to Prendergast this square of stiff paper was a vehicle that gave him a voice in the skyscrapers and mansions of the city. ... Prendergast filled the postcard from top to bottom, from edge to edge, with little regard for whether the sentences formed level lines or not. He gripped the pen so tightly it impressed channels into the tips of his thumb and forefinger.” (183) Prendergast shot Chicago Mayor Carter Harrison to death on 28 October 1893.

⁵⁵ G.F. McDonald and S. Alsford, “The Museum as Information Utility,” *Museum Management and Curatorship* 10 (1991): 306. For a detailed discussion of the history of museum and artifact studies and their relationship to critical theory, see Pearce, *Museums, Objects, and Collection*.

⁵⁶ For a recent consideration of the scope and purposes of museums, see Suzanne Keene, *Fragments of the World: Uses of Museum Collections* (Oxford: Elsevier Butterworth Heinmann, 2005). Exhibitions themselves can also be driven by material culture study: see for instance Robert Friedel, *A Material World: An Exhibition at the National Museum of American History* (Washington, DC: Smithsonian Institution, 1988).

which may shed some light on interactions between researchers and records.⁵⁷ This research is used to develop their audiences and to increase their effectiveness in serving these audiences, especially through development and design of exhibition and education programs. As tools for communication, museum artifacts “are caught up in a web of meaning that includes the social and personal world of the object’s creator as well as the world of each individual who examines it. The objects carry signification from both of those worlds and meaning is imposed in both directions.”⁵⁸

Museum visitors have identified four types of satisfying experiences. *Object* experiences include “seeing rare/uncommon/valuable things” and “seeing ‘the real thing’;” *cognitive* experiences include “gaining information or knowledge;” *introspective* experiences include “imagining other times or places,” “recalling my travels/childhood experiences/other memories” and “feeling a spiritual connection;” and *social* experiences include “spending time with friends/family/other people.”⁵⁹ The first three of these types of experiences may correspond to those felt by researchers working with original records. It is likely that archives’ researchers actively seek mainly cognitive experiences and therefore privilege those experiences, while still enjoying their introspective and object experiences. Indeed, their object experience would likely be intensified by their direct physical contact with the material, as well as by the relatively limited access to the records, which are not on public display but must be specifically requested.

⁵⁷ While there is some archival literature dealing with public access and public programming it has neither the depth nor the breadth of museum work in this area, and many recent studies concentrate only on development of finding aids. Few have focused on the interactions between users and the records themselves. An exception, the work of Joanna Sassoon is discussed in Chapter Three.

⁵⁸ M. Elaine Davis, *How Students Understand the Past: From Theory to Practice* (Walnut Creek, CA: Altamira Press, 2005), 115.

⁵⁹ Graham Black, *The Engaging Museum: Developing Museums for Visitor Involvement* (London and New York: Routledge, 2005), 285.

Another approach to understanding the variety of ways in which individuals may engage with records is to consider human learning styles. One popular model for describing learning styles is the VARK guide to learning styles or preferences. The name is an acronym for the four basic learning preferences: Visual (seeing); Aural (hearing); Reading/Writing (processing text); and Kinesthetic (doing).⁶⁰ Since Western business and education cultures favour reading/writing presentations, it is not surprising that most archival and historical research practices assume written records and text-oriented tools as the norm. Archivists and historians are increasingly aware of a need for literacy in visual and oral sources, but kinetic and tactile experience have not been given the same level of attention as means of comprehending records as human communication.⁶¹

Effective museum exhibitions and interpretive programs seek to engage audiences with the past, appealing to multiple senses and to the imagination. At the Canadian War Museum for instance, traditional-style static displays of objects are supplemented with archival film footage, modern video re-enactments, music, and environmental recreations such as a First World War trench. Certain objects are displayed for the public to handle: for instance, a didactic panel encourages visitors to try on a First World War helmet and imagine wearing it for prolonged periods as soldiers did. It is possible to listen to voices of actors reading from archival documents on telephone-like receivers – a “hot-line” to

⁶⁰ “VARK: A Guide to Learning Styles,” available at <http://www.vark-learn.com/english/>, (accessed 31 October 2006). A similar perspective appears in David Kolb’s four elements of learning preferences: Concrete Experience (feeling), Active Experimentation (doing), Reflective Observation (watching) and Abstract Conceptualization (thinking). See L. Green, “Application of Learning Style Theory to the Development of School Resource Cases,” (Master of Museum Studies research paper, University of Toronto, 1992), 44.

⁶¹ Archivist Jim Burant has reviewed the increasing use of “visual” (as opposed to textual) records by historians, although he notes that prevailing researcher interest in these records remains illustrative rather than evidential. See Jim Burant, “Visual Archives and the Writing of Canadian History: A Personal Review,” *Archivaria* (Fall 2002), 94.

the past. The intimacy of hearing an individual voice and story directly in one's ear, or of seeing shell-shocked veterans on film, supplements the more broadly shared experience of the exhibition storylines.⁶²

Given archives' logocentric focus, when text is present in a record, it is often understood to be *the* "information," thus marginalizing the role of the rest of the record in informing the user. The perception of information as limited to subject content is common within the field of Library and Information Studies, which often includes Archival Studies programs. Nevertheless, information science professor Michael Buckland proposes three distinct meanings of the term "information": "information-as-process," "information-as-knowledge," and "information-as-thing." He suggests that information-as-thing, or informative phenomena, includes not only data, text and documents, but also objects, processes and events. Buckland asserts that the state of being informational, of providing evidence, is situational and that "we are unable to say confidently of anything that it could not be information."⁶³

The materiality and kinetics of bound structures as reading technologies and the kinesthetics of reading are major themes in conservator and educator Gary Frost's "The Future of the Book" blog. He feels that "the hands prompt the mind using non-linguistic data. Historians remark on the lack of documentation of the hand skills. The needed realization is that dexterity itself is a medium of information."⁶⁴ In other words, not just the record but the sensory encounter shared by its users over time, provide historical

⁶² Observations made during a personal visit to the Canadian War Museum, 21 October 2006.

⁶³ Michael K. Buckland, "Information Retrieval of More Than Text," *Journal of the American Society for Information Science* 42 (1991), 256.

⁶⁴ Gary Frost, "Haptic Evaluation of Books," available at [http://www.futureofthebook.com/stories/storyReader\\$716](http://www.futureofthebook.com/stories/storyReader$716) (accessed 28 September 2006). In this article Frost provides a checklist for describing the Anatomy, Action and Handle (tactile qualities) of artist's books.

evidence. Frost argues that, although the reader is rarely conscious of book action, a reader using a physical book is engaged in “a haptic process in which the hands prompt the mind to provide an ergonomic relation to the content.”⁶⁵

Reflecting on one’s personal interactions and experiences with records, critically considering how and why they engage our senses to communicate, is undeniably a subjective means of analysis. A legacy of the Enlightenment is the low status accorded to the senses, especially touch, relative to the intellect. Historian Mark M. Smith suggests that in the West this has resulted in sensory perception being considered as a physical rather than a cultural act.⁶⁶ In *Sensing the Past: Seeing, Hearing, Smelling, Tasting and Touching in History*, Smith considers how each of the senses has been understood and used by historians, and advocates development of a sensate habit “because it pricks consciousness and questions assumptions about what to examine and how to examine it.”⁶⁷ While few today would argue that any writer could be entirely without bias, an impersonal, “objective” voice is required (or expected) in most academic historical writing to avoid a *perception* of bias. Despite the popularity of using original records, as indicated by the survey of Canadian historians noted above, explicit discussion of the materiality of source records rarely appears in academic history journals.⁶⁸ It is possible

⁶⁵ Gary Frost, “Reader’s Guide to Book Action,” [http://www.futureofthebook.com/stories/storyReader\\$623](http://www.futureofthebook.com/stories/storyReader$623) (accessed 28 September 2006). See also “Materiality of Reading,” [http://www.futureofthebook.com/stories/storyReader\\$790](http://www.futureofthebook.com/stories/storyReader$790).

⁶⁶ Mark M. Smith, *Sensing the Past: Seeing, Hearing, Smelling, Tasting, and Touching in History* (Berkeley and Los Angeles: University of California Press, 2007), 3,100. Olga Belova has described how, by privileging sight over the other senses, René Descartes sought “objective” knowledge. “This passive intellectual engagement with the object of study complemented by a physical detachment from it gave rationale to a clear-cut distinction between the body and the outside world, the seer and the seen.” Olga Belova, “The Event of Seeing: A Phenomenological Perspective on Visual Sense-Making,” *Culture and Organization* 12 (June 2006): 95.

⁶⁷ Smith, *Sensing the Past*, 5. For other examples of interest in the role of the senses in human communication see the description of the interdisciplinary research carried out through the Centre for Nonverbal Studies at its website: <http://members.aol.com/nonverbal2/centre.htm> (accessed 31 August, 2007); for an example of more specific uses of the sense of smell see for example Tracey P. Lauriault and Gitte Lindgaard, “Scented Cybercartography: Exploring Possibilities,” *Cartographica* 41(Spring 2006): 73-91, and the work of the Haptics and Virtual Environments Lab: <http://imsc.usc.edu/haptics/> (accessed 27 August, 2007).

⁶⁸ Key word searches on the terms “material culture,” “materiality,” “archives” and “archival,” were applied to electronic databases for the *Journal of the Canadian Historical Association*,

that historians writing for primarily academic audiences may elide their physical interactions with records, as too emotional, too sensory, and thus insufficiently objective and therefore irrelevant. Nevertheless, as historian Tim Hitchcock proposes,

“If all our sources are more or less fictional then we are newly liberated to use a wider variety of sources. ... By recognizing the grammar of each variety of source we are liberated to translate their content, and to add their evidence to a single whole. ... [P]rose and numbers, poetry and bald description can, with care, be used to create an admittedly constructed, but convincing, vision of the past.”⁶⁹

The materiality of records enables development of fuller, richer historical understandings from the embodied traces remaining in archival records.

Why Do Records Look the Way They Do?

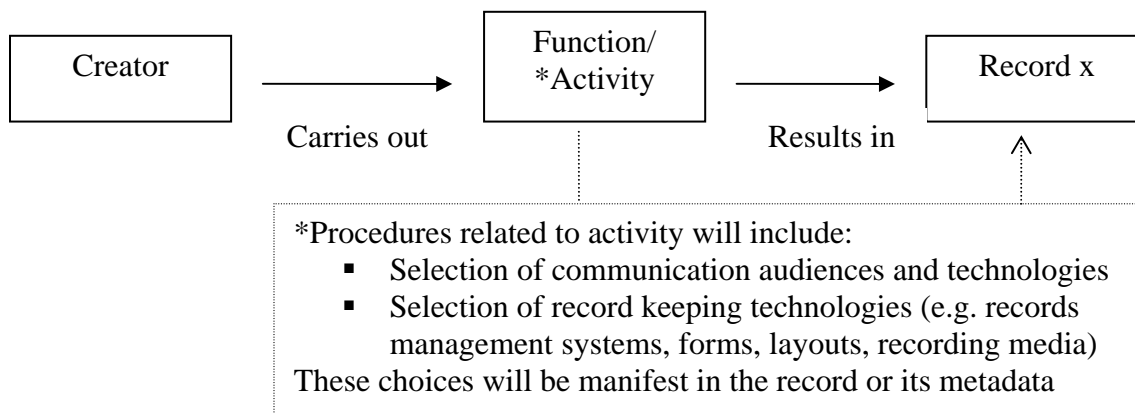
Why do records look, feel, sound, smell and move the way they do? Creators select those which meet their communication and recordkeeping needs from the materials and techniques available to them. In making these choices, the creator will be influenced by the contemporary social, political, and cultural climate, and by other individuals and organizations,⁷⁰ as represented in Figure 1.1a.

Canadian Historical Review, *Histoire Sociale* and the *Journal of Social History* in December 2007, with no clearly relevant hits.

⁶⁹ Hitchcock, *Down and Out in Eighteenth-Century London*, 234. For a discussion of knowledge and the sensing body, see Joy Parr, “Notes for a More Sensuous History of Twentieth-Century Canada: The Timely, the Tacit, and the Material Body,” *The Canadian Historical Review* 82 (Dec 2001): 720-745.

⁷⁰ Art conservator and educator Ian Hodkinson has discussed influences on creators of paintings in detail in “Man’s Effect on Paintings,” in *Shared Responsibility: Proceedings of a Seminar for Curators and Conservators*, eds. Barbara Ramsay-Jolicoeur and Ian Wainright (Ottawa: National Gallery of Canada, 1990), 54-55. Jules David Prown has discussed how artifacts come into being through a mixture of tradition, contemporary culture and personal preferences in Prown, “The Truth of Material Culture,” 3.

Figure 1.1a A Simplified View of Initial Events in a Record's Creation

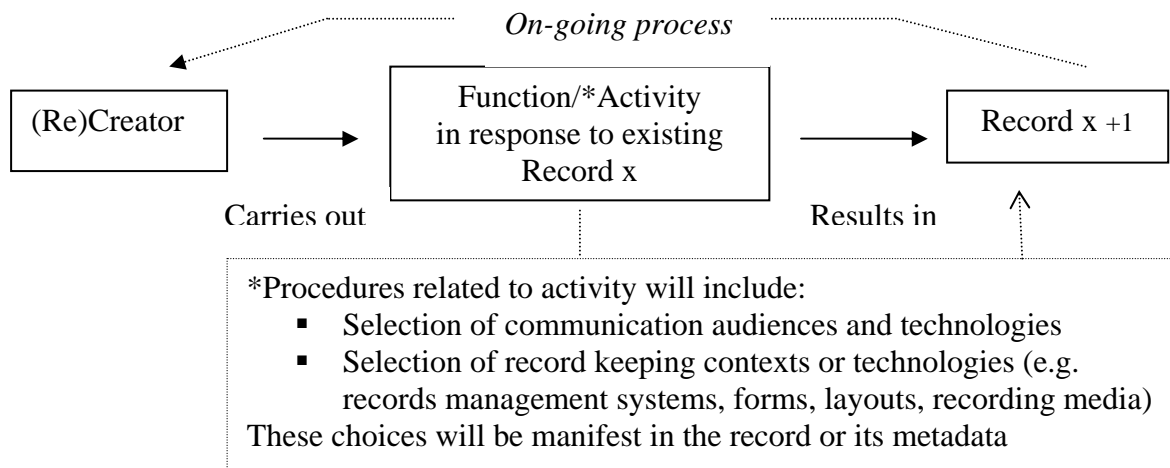


The function of the document may be manifest in the luxury or poverty of the materials. For instance the paper used for recording executive business agreements can be anticipated to differ from the temporary note attached to it which directs the clerical staff where to file an agreement.

A “creator” can be understood to include all those who have contributed to the way a record has looked or acted from its conception to the present. Following the model shown in Figure 1.1b, a letter between two individuals could later be re-created by other individuals either by physically adding or removing material components, or by re-contextualizing that letter, for instance as a example of penmanship or an example of conventions of social discourse, as evidence of an event described in the letter, or as a component of a work of art.⁷¹

⁷¹ For a much more complex model of record formation, see for instance Brien Brothman, “Archives, Life Cycles, and Death Wishes: A Helical Model of Record Formation,” *Archivaria* 61 (Spring 2006): 235-269; and Eric Ketelaar, “Archivalisation and Archiving,” *Archives and Manuscripts* 26 (May 1999): 54-61.

Figure 1.1b A Simplified View of Subsequent Events in a Record's Existence



Records can also be physically altered through additions and deletions by the creator or by subsequent custodians. A knowledge of all the materials and technologies present may be required to assist in recognizing later additions, in recognizing missing components (such as seals, ribbons or postage stamps), in establishing the sequence and relative dates of the changes, and in distinguishing the “original” from copies. Once created, a record starts changing as a result of the deterioration generally attributed to the ever-present co-creator picturesquely known as “Time” – the combination of light, pollution, heat and humidity. Since these agents of deterioration can usually be decelerated or accelerated through human intervention (or the lack of it), the type and level of deterioration present in the record provides evidence of previous care and (ab)use by their past and current custodians.

Analyses of Materiality in Two Archival Examples

In the following chapters, two extended examples of records from the holdings of the Archives of Manitoba will be used to illustrate ways in which materiality has been, or could be, considered in archival theory and practice. The rest of this chapter is devoted to introducing these records and discussing the nature and significance of their materiality. The first example is a pair of related fur trade journals which will be discussed further in Chapter Three, and the second is a First World War soldier's wallet which will be discussed in Chapter Two.

Example A: One Post Journal Narrative, Two Contexts 1 - Materiality

In 2002 the Hudson's Bay Company Archives (HBCA) acquired a journal for Moose Fort⁷² which had clearly served as the rough copy for the 1789-91 entries of the official post journals. This is the only case in which the Archives has both the official post journals and an earlier iteration of substantially the same written content,⁷³ and therefore it serves as an ideal example of the role materiality can play in understanding and interpreting the two versions of the text. The person in charge of each of the HBC's posts was responsible for recording daily events and transactions in a journal. A "fair" copy of this journal was sent to London at the end of each trading season. These were used by the Governor and Committee of the HBC in their decision-making regarding the posts. The rough journal overlaps the time period for two of the official journals which

⁷² Archives of Manitoba, HBCA, Moose Factory post journals, E.372/1. Moose Fort, located northern Ontario on the shore of James Bay, was later re-named Moose Factory.

⁷³ The HBCA also has photocopies of "rough copies" of post journals for York Factory (E.345/3-5); the originals of these are in the Glenbow Archives.

were received in London; for the analysis in this thesis, the official, “fair copy” journal for the 1789-90⁷⁴ will be used for this comparison with the rough version.⁷⁵ While the two volumes are almost identical in written content, there are substantial differences in their physical material and construction, as can be seen in Figures 1.2-1.4. Four pages of thick paper have been used together to make up the cover of the rough journal. These pages are clearly identified as accounts for 1793, although this title has been crossed out and the journal title added. The existence of these rough accounts pages as well as the rough journal entries, is primary evidence of a practice of making rough drafts from which the official records of the HBC would be copied. The re-use of these pages from accounts created in 1793 is evidence that this volume could not have been assembled until two to three years after the journal entries were written.

⁷⁴ Archives of Manitoba, HBCA, Moose Factory post journals, B.135/a/76.

⁷⁵ The archival description indicates that “[t]he content of these journals is largely the same as the official copies, but with additional information in the margins, including names of Aboriginal people associated with the post, boat trips made, hunting returns, brandy and beer rations served, and some farming activities.” Background information regarding HBC post journals and the Moose Factory post is based on descriptions in the Keystone database, available through <http://www.gov.mb.ca/chc/archives/keystone/index.html>.

Figure 1.2 Covers of Moose Factory Journals, 1789-1791

On left: Archives of Manitoba, HBCA, E.372/1. "Rough journal"

On right: Archives of Manitoba, HBCA, B.135/a/76. "Official journal"

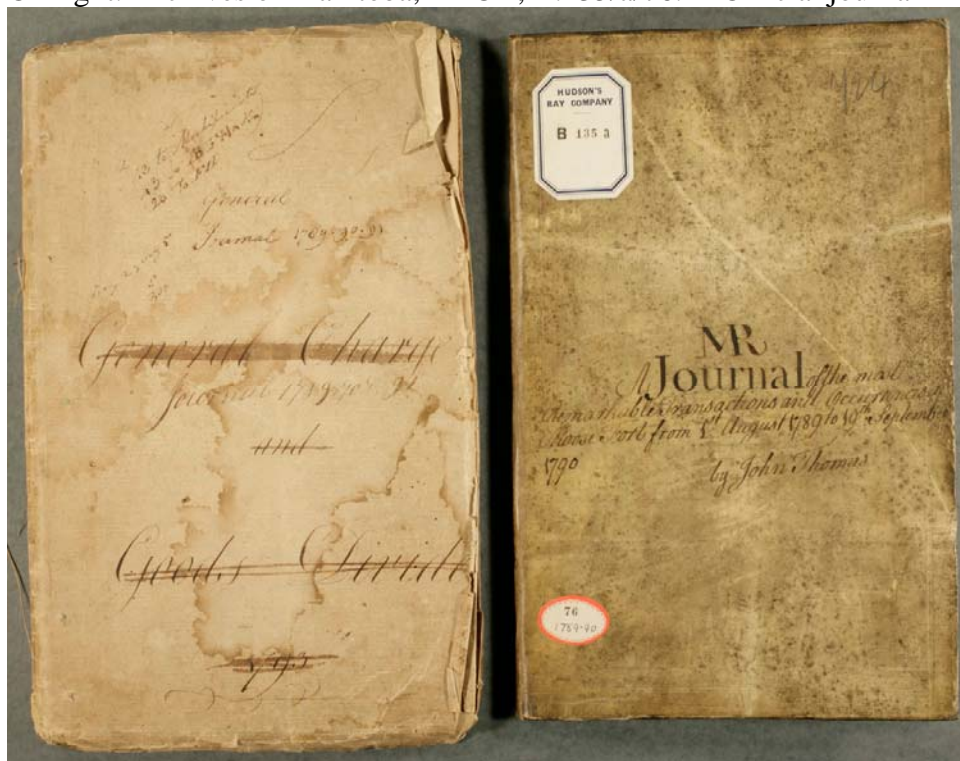


Figure 1.3 Journals Open to First Journal Entry. Accounts are visible on the inside of the "cover," opposite the first entry of rough journal, at left. At right, the text of the official journal begins on the back of the first page. Note also the Hudson's Bay Company stamp on the second page of text.

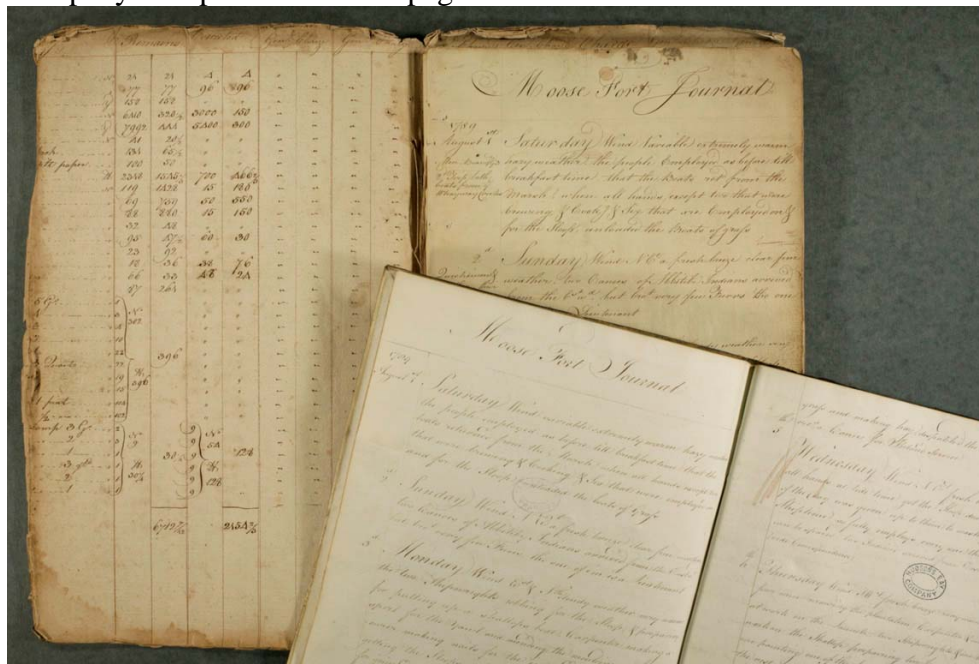


Figure 1.4 Journals Open to Page 11. Note the margin notations and additions between the lines of the rough journal (at top left), and the clean orderly uniformity of the official journal (at bottom right).



The accounts text is cut off, indicating that these cover pages have been cut down from larger size, although the paper still extends beyond the journal text pages. This suggests that the journal was stored flat after the covers were attached, since it could not stand upright supported by these papers alone. The size, thickness, coarse fibres, and uneven fibre distribution identify this cover paper as wrapping paper rather than writing paper.⁷⁶ The reuse of the account paper as a protective covering suggests that at this post and at this time there was a scarcity, or unwillingness, to use new or more conventional covering materials. The reuse of wrapping paper for the rough copy of the accounts may suggest either a scarcity of paper large enough to accommodate the layout of the

⁷⁶ Wrapping papers are well known to paper historians because they have frequently been used by artists working during this same period. For a detailed discussion of English papermaking see John Krill, *English Artists' Paper: Renaissance to Regency* (New Castle, DE: Oak Knoll Press, 2001). These large coarse-textured papers appear occasionally in HBC records. They would have been used to wrap dry goods such as textiles prior to their re-use, and appear in a range of colours and sometimes with fold lines unrelated to the record they have become.

accounts, or a general scarcity of writing paper. These scarcities might be connected to inadequate supplies requested from or supplied by the HBC, or to problems with the timing of the arrival of the supply ships due to weather, damage or loss-at-sea.⁷⁷

As there has been relatively little visible damage to the text block, the covers have fulfilled their protective purpose by bearing the brunt of wear and tear to the journal. The text block has been assembled from three folded sections of pages.⁷⁸ The first of these sections is written on a high-quality, white, writing paper (now discoloured to yellowish). The number of pages in the second section is similar to the first, but the size of these pages is slightly smaller, the watermark⁷⁹ is different and the paper is thinner and less stiff. The paper characteristics of the third section resemble those of the second, but there are substantially fewer pages and they bear a different watermark. The papers of the last two sections would be less expensive than that used for the first section. It is possible that this inferior quality paper was issued by the HBC specifically for day-to-day post business use. Some pages were cut out of one section prior to the writing of the entries on the surrounding pages; this text is continuous and intact.

⁷⁷ Few archives have records as comprehensive as the HBCA's. Lists of provisions for this post and dates appear in the account books for this period, and post journal entries and correspondence may provide specific details to support the speculations outlined in this paper. Nevertheless, since this thesis is primarily concerned with information that can be derived from the materiality of the records, these sources have not been used to support this study.

⁷⁸ Several sheets of paper placed on top of one another, and then folded make up a section (also called a quire or signature). Sections are generally attached to one another by sewing through the folded centres of the pages. A single section with a wrapped cover and sewn through the middle is a pamphlet binding. The majority of HBC post journals are pamphlet bound. For a guide to English bookbinding, see Bernard C. Middleton, *A History of English Craft Bookbinding Technique* (London: The Holland Press, 1963).

⁷⁹ Linear patterns, letters, numbers and drawings may be shaped with wire and sewn onto the paper mould screen. During the formation of a sheet of handmade paper, paper fibres are gathered onto a mould; more fibres settle on the screen than on the raised wire shapes. When the dried paper sheet is held up to light, the watermark image will be visible because the paper is thinner in these areas. Watermarks were generally used to identify the size of the paper, and where or when the paper was made.

At least three distinct formulations of brown writing ink appear to have been used for the text of the rough journal, and at least two are alternated within the same period of time. The ink use within each entry is usually the same, consistent with what would be expected for daily entries. By this time powdered writing ink was available and would be most practical for storage and transport; water, beer or similar liquids would be mixed with the powder to make ink. Variations in the colour, thickness and glossiness of the ink are therefore understandable given that new ink must have been made periodically. Ink viscosity and thickness would also change as the liquid evaporated from the ink bottle or as the ink was diluted with fresh liquid, and the ink would be expected to flow smoothly in the warmth of the summer or of well heated rooms, and flow poorly in conditions closer to freezing. Visual characteristics of the inked words, as seen in Figures 1.5 and 1.6, can therefore be interpreted to reflect physical conditions when and where the entries were made. Based on the way the written lines swell and diminish and the minimal impression left on the hard surface of the paper, the ink was most likely applied with a quill pen.⁸⁰ Again, variations are expected as the quill tip wore down and needed to be re-cut periodically.⁸¹

⁸⁰ The quills probably were obtained from local geese. Quills of wild geese from North America were sold in Europe at a premium and were known as “Hudson’s Bay Quills.” See B. Pride, *The Art of Pen-cutting*, (London, 1812), 9.

⁸¹ For a discussion of European writing and drawing inks and pens, see James Watrous, *The Craft of Old-Master Drawings* (Madison, WI: The University of Wisconsin Press, 1957).

Figure 1.5 Detail of official journal, Page 11. Note visual characteristics of writing

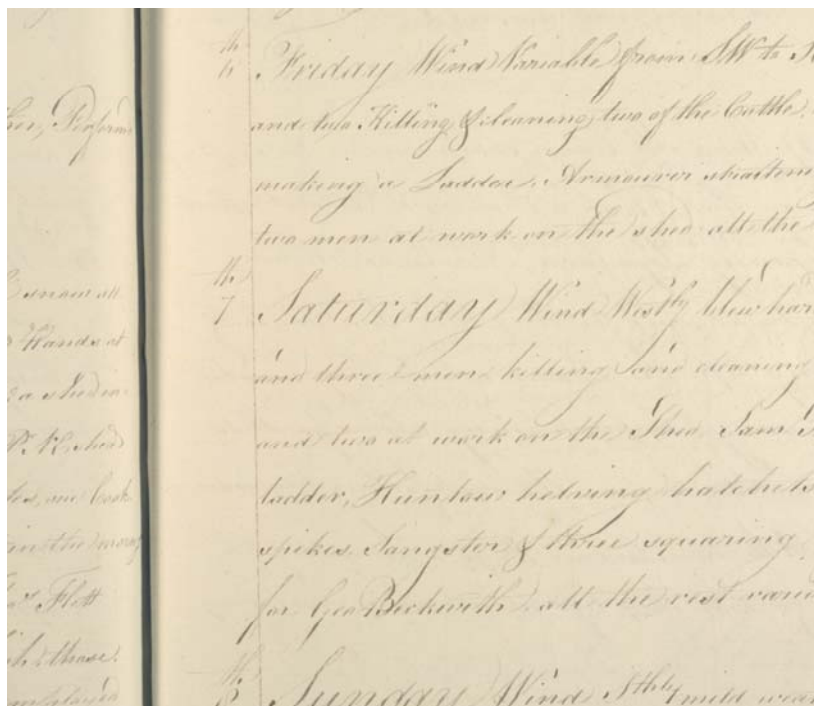
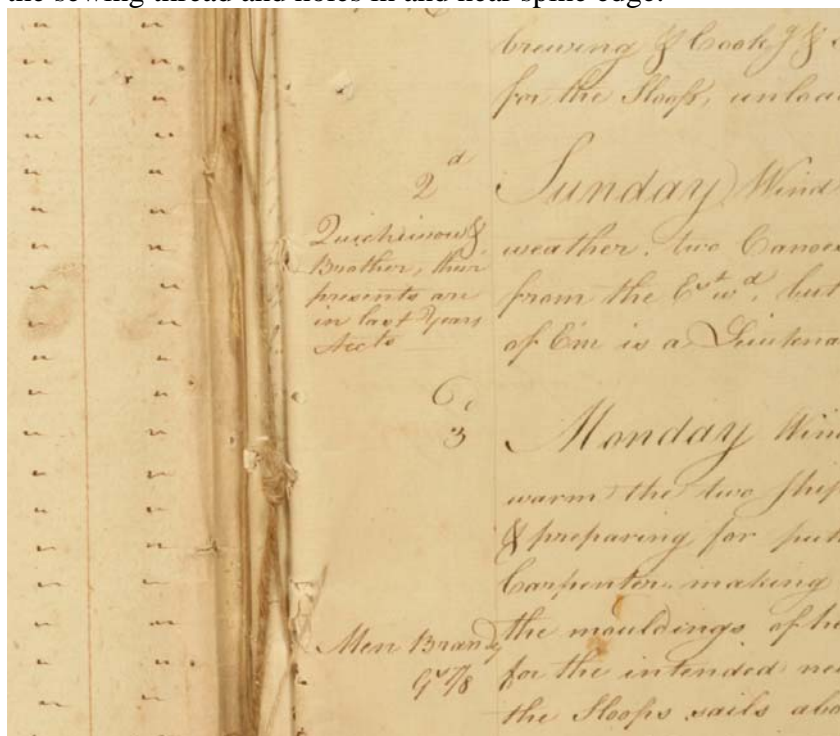


Figure 1.6 Detail of rough journal, Page 1. Note visual characteristics of writing, and the sewing thread and holes in and near spine edge.



The original sewing structure that secured the cover to the three sections of paper, partially visible in Figure 1.6, is difficult to understand, especially since many of the threads are broken. The first two text sections also appear to have additional sewing holes along their spines, suggesting they may have been separate pamphlet-bound booklets at one time. The volume appears to have been assembled by someone with little knowledge of standard book-binding techniques. Two sets of side-stab sewing holes extend through all four sections, suggesting they may have been held in a larger structure at one time, possibly with other similar records.

Stains and discolourations appear on the covers and interior pages. Stains on the inner pages may suggest incidents which occurred while reading or writing the text, and a chemical analysis of these stains might indicate they are from candle wax or lamp oil used as a light source, or drips from food being consumed, or similar substances on the fingers. Large but superficial liquid stains are visible on the front cover and bottom edges of the pages. The dominance of the stain on the cover indicates something dripped on it from above; the fact that it does not penetrate through the cover paper suggests the excess liquid was mopped up. The light colour of the centre of the stain and the dark periphery of the stains are a result of the re-deposition of soluble substances in the paper being drawn along the paper fibres to the wet/dry boundary or “tide-line.” The degree of colour contrast suggests that the cover paper had already undergone some deterioration prior to the wetting event, so this event probably occurred well after the journal had been written and assembled. The relatively light colour of the stain also suggests that it was from a relatively clear liquid, such as seawater. The yellow-brown discolouration along the edges of the paper are best seen in Figure 1.3. These are the result of air pollution

which could not penetrate far through the closed volume; this kind of discolouration is common in books from industrially polluted areas, and are often, as in this case, coupled with fine soot. Unless the rough journal was stored in a furnace room or similar localized polluted area, it must have spent some of its post-Moose Fort life in an industrial centre, and was most likely returned to Great Britain.⁸²

The brown ink used in the official journal appears relatively consistent throughout, suggesting it was written over a short period. The paper used for the official journal text is the same as the first section of the rough journal; it has the same thickness, watermarks, colour and distribution of fibres and the presence of blue pigment particles. The official journal is sewn through the centre in a single section with a limp vellum cover.⁸³ The vellum has a simple impressed linear decoration along its edges and a large title inscription. This journal has a much more formal presentation, with end leaves and a title page. These blank books would have been made in bulk by a stationery bookbinder in accordance with the HBC's specifications, and shipped to all their posts for use in creation of their formal records. The cover is flush with the textblock, and the wear on the bottom edge suggests a history of being shelved upright. The text pages of the official journal have few stains, but bear the sooty and yellow-brown edge discolouration described above and which is common to the HBC records which were stored in London through its most industrial coal-burning period. Further evidence of storage is present in the ground-in soot and mould spots on the cover of the journal: these do not extend to the

⁸² The donor of this journal, a resident of Mississippi, did not know how his family had acquired it. Based on the acquisition file, no research has been undertaken by Archives staff to further explore the history of this journal, and such research is beyond the scope of this thesis.

⁸³ Vellum (or parchment) is a de-haired un-tanned animal skin, usually goat, sheep or calf, stretched and prepared with lime. The binding style is called "limp" because it is not covering a hard material such as cardboard or wood. The plasticized paper covers of many modern paperback books are similar in weight and texture to limp vellum covers.

back cover, suggesting that the mould attacked only the exposed surface and that, at that time, the journal was located at the top or edge of a pile, bundle or shelf. Underlining in red ink and in graphite appear in the journal but may have been added some time later; the placement of these later markings might provide evidence of their meaning, as might a comparison with similar additions to other HBC records. Black ink-stamps and paper labels with HBCA cataloguing information are also later additions, applied after the Archives was established in 1920, but before the records were transferred to the Archives of Manitoba in 1974. These signs assert the ownership and classification schemes of the HBCA over previous ordering systems for the records. They also suggest that the spines and covers of the journals were not considered as intrinsically valuable as the text inside, and therefore that the HBCA followed library-based models of stewardship rather than museum or gallery models.⁸⁴

A simple visual analysis of the materials and construction of the records has been offered above. Microscopic, instrumental, and chemical analyses could be carried out on components of the journals to identify their composition more precisely; for instance the plant fibres in the paper might suggest where the paper was made, or impurities in the graphite might suggest where it was mined. Every physical element of the journals has a complex socio-cultural and technological history; between them they reflect events in the histories of science, technology, industry and economics. The physical composition of the paper alone would encompass textile manufacture and recycling (the main source of paper fibres before the use of wood pulp), mining and industrial chemistry (chalk,

⁸⁴ Rare-book librarianship had not yet shifted to the practice of writing custodial identification in an unobtrusive location on the inside of the covers.

coloured pigments and other filler materials), and animal husbandry and slaughterhouses (gelatine size as a glue and coating).

Beyond visual observation and forensic analysis, the action of the records can also be understood as sensory information. The journals were created to function as simple business recordkeeping systems: the covers of both journals serve to identify their contents and to protect them from damage, and the sewing holds the pages together and in sequence. Nevertheless, the tactile experience of handling the two journals differs significantly. The vellum cover of the official journal is smooth, hard and glossy. Vellum is quite stiff, so although this journal can be held open easily, it closes almost automatically when released. The writing is thin, the pages surfaces feel hard and turn with a crisp sound. This journal's construction is efficient and robust, and has suffered only superficial damage over more than 200 years. The structure of the rough journal is much less formal. The cover function is served by several pieces of soft and absorbent paper. The sewing has held the sections together in order, but the sewing holes have worn at the cover and the sections are loose and detaching. The pages stay open easily since the structure provides no tension to pull it closed. While this recordkeeping system follows general book-binding principles, its make-shift construction appears not to have been designed for aesthetics, for long-term storage, or for frequent use.

In addition to serving as a draft of the official journal, the rough journal appears to be a document intended for internal use at the post. Since the accounts pages used for the covers are dated 1793, the journal as we see it now was clearly not assembled until after the individual sections had completed their function as drafts of the official records. Instead of being discarded or used as scrap paper (as the account pages were), the three

sections were bound together, clearly signalling the intention of longer-term use in some other capacity.⁸⁵ The variations in the appearance of the journal entries and the crudeness of its construction can bring the modern researcher closer to fur trade post life and practices, and provide a sense of events in its custodial history. In contrast, the official version, intended for the eyes of the Company officers, has been smoothed into a neat and continuous narrative, with the same standardized appearance as every other HBC post journal from that time and place, as seen in Figure 1.7. The HBC's corporate power to possess and manipulate information is reflected in its physical records.⁸⁶ The orderly rows of post records housed at the London headquarters may reflect the Governors' desire to see themselves as part of a steady orderly presence on the "edge of Empire."⁸⁷

Figure 1.7 Part of a Series of Vellum-Bound HBC Records in Storage



⁸⁵ It could be argued that the rough journal belongs in a separate series from the official journals among which it has been classified.

⁸⁶ A discussion of the relationships between power and records is beyond the scope of this paper. See for instance JoAnne Yates, *Control Through Communication: The Rise of System in American Management* (Baltimore and London: The Johns Hopkins University Press, 1989).

⁸⁷ See Deirdre Simmons, *Keepers of the Record: The History of the Hudson's Bay Company Archives* (Montreal: McGill-Queen's University Press, 2007).

Example B: Opening Out a Soldier's Wallet 1 - Materiality

Arthur Morrison was on active duty with the Canadian Machine Gun Corps from April 1, 1917 until his death on September 29, 1918. Morrison's wallet from this period of service is now in the holdings of the Archives of Manitoba.⁸⁸ A wallet was part of the normal personal effects for a Canadian soldier at this time,⁸⁹ and suitably sized wallets for a soldier's documents could be purchased from the base kitshop, as well as other sources.⁹⁰ The imitation alligator skin leather wallet opens to reveal internal pockets of varying size on each side; a pocket the full length of the wallet and closed with a flap, is accessed from one side, as shown in Figure 1.8.

⁸⁸ Archives of Manitoba, Norman Matheson fonds P4352, file 2. Arthur Morrison was Norman Matheson's uncle and the Matheson fonds consists mainly of genealogical information related to the Morrison and Matheson families. This file includes Morrison's letter of acceptance for military training, three letters related to his death and a subsequent memorial, and the wallet discussed here.

⁸⁹ The "standard kit" for a Canadian infantry soldier in 1918 included a "purse or wallet," which was considered the soldier's property, and a paybook, which was considered property of the public. David Love, *"A Call to Arms": The Organization and Administration of Canada's Military in World War One* (Winnipeg and Calgary: Bunker to Bunker Books, 1999), 212.

⁹⁰ Personal communications with Cameron Pulsifer, Historian, Canadian War Museum, 25 August 2004; Rick Sanderson, Director, Royal Canadian Artillery Museum, Canadian Forces Base Shilo, 27 August 2004; and Clive Prothero-Brooks, Curator, also of the Royal Canadian Artillery Museum, 14 September 2004. Australian and American military wallets, some with personal contents, have been offered for sale through militaria websites and on E-Bay. Searches of the on-line catalogues of the holdings of the Canadian Museum of Civilization/Canadian War Museum, and of Library and Archives Canada in November 2005 and September 2008 turned up only isolated pay books, diaries, photographs and empty wallets and not the integrated "whole" as in the case of Arthur Morrison.

Figure 1.8 Arthur Morrison's wallet, opened to show how items fit inside. Archives of Manitoba, Norman Matheson fonds P4352, file 2.



The smallest pocket appears to have been unused or seldom used since it lies flat, with no signs of wear or stretching. The larger internal pockets contain a variety of items shown in Figures 1.9-1.10 and discussed below.

Figure 1.9 Arthur Morrison's Wallet Partially Unpacked, with pay book and diary removed at right.



Figure 1.10 Arthur Morrison's Wallet and All its Contents



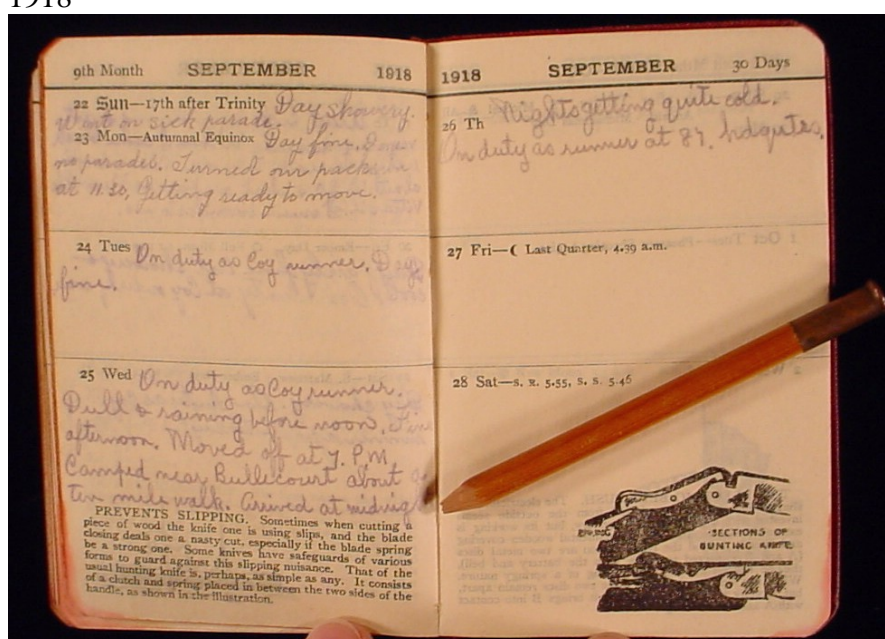
A. A red book-cloth covered diary, with the title “The Soldiers Own Diary” stamped in silver-coloured ink.⁹¹ While soldiers were discouraged from keeping diaries, lest they fall into enemy hands,⁹² the title page indicates that this publication was available through the Young Men’s Christian Association at military camps as well as through stationers in the United Kingdom, suggesting that publications like this one were tolerated. The first third of the diary is devoted to printed information of practical value to soldiers such as maps of European countries, instructions regarding weapons and their maintenance, currency conversion, and first-aid strategies. The pages for the diary contents are divided and dated, implying that entries should be short; Morrison filled most entries with two-to-three lines of writing, staying within the allocated space. The spine of the diary is extended to form a sheath which holds an

⁹¹ The full title on the title page reads: “Soldiers’ Own Notebook and Diary for 1918 Containing Useful Information Invaluable to Every Soldier at Home or at the Front, Compiled by J. Gibson, 19th Co. R.G.A.” This edition, “Bound in cloth with pencil,” is indicated to have cost 1 shilling.

⁹² Personal communications with Rick Sanderson and Clive Prothero-Brooks.

indelible pencil. The diary entries are written in both graphite and indelible pencil; the latter is distinguishable by its purple colour after exposure to moisture. This colour change, along with a small area where the back flyleaf is stuck to the back pastedown, indicates some exposure to damp, but not wet, conditions. The pencil's tip is broken off, and it was last sharpened with a knife.

Figure 1.11 Arthur Morrison's Diary and Pencil, open to entries for September 22-28, 1918



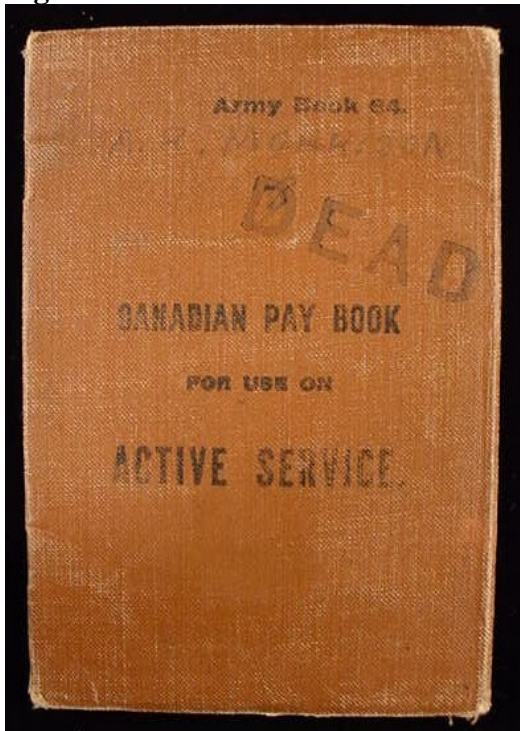
- B. A clearly military-issued brown book-cloth covered “Pay Book” with titles stamped in black ink and Morrison’s name added in handwriting. The front cover has a wrap-around flap extension. According to the directions at the front of the book, soldiers “will make no entries in this book, except to sign your name ... & to make your will;” all other entries have been made by officers.⁹³ In addition to the records of payments

⁹³ As noted above, a pay book was not considered the soldier’s personal property. Given that the military left the pay book with the wallet when they sent it to his relatives, it appear that this transitory public record was essentially de-accessioned to soldiers, or their estates, at the end of their service.

and charges, the pay book includes records of inoculation, training certifications, instructions of what to do if hospitalized or taken prisoner, and examples of wills.

The page with Morrison's will has been cut out, and "Dead" has been stamped on the cover.

Figure 1.12 Cover of Arthur Morrison's Pay Book



C. *A metal mirror* with a hole at one end, in a utilitarian leather cover. Metal mirrors were most often used for signalling; a shaving mirror was usually glass and would be kept with one's toiletries. Morrison's name and a home address are handwritten on the outside of the cover in blue ink. The mirror has a few small rust spots where the coating may have been thin, as well as some fine scratches and etched fingerprints. A continuous skin-grain pattern is visible over the surface, probably from prolonged contact with the leather cover. The cover shows considerable wear; in places the

leather is darkened and polished to a shine from rubbing, and there are spots of ink and green paint upon it. The mirror appears to predate the acquisition of the wallet, and possibly Morrison's enlistment.

D. Thirty-four silver-gelatine photographs, ranging in size from 4.5 x 7.5 cm to 9 x 14 cm, and encompassing a variety of photographic processes. The largest photographs are all unidentified photographs of soldiers printed on cards stamped on the non-image side for use as postcards; from the stamps of the back and the visual characteristics of the images, they appear to have come from four or five photographer's studios, two with London addresses. It is likely that Morrison and his fellow soldiers arranged these informal groupings and exchanged them among themselves. The smaller photographs include posed and candid snapshots of soldiers, of women of all ages, and of pets. About a quarter of the smaller photographs have personal and joking messages on the back in several different writing media and different handwriting.⁹⁴ Some of the photographs have discoloured, or show "silvering out" deterioration reactions (related to their processing and their storage environment), but all the photographs have creases, folds, abrasion, fingerprints and surface soiling from handling. Many have some brownish dye on the back which appears to have rubbed off the wallet's lining. Unlike the other items in the wallet, they have not been supplied with any supportive and protective covering.

⁹⁴ For example: "some smirk eh?" and "puzzle - find Santa;" no-one who looks remotely like Santa Claus is in the photograph. Only two photographs identify the subjects: one is identified as Morrison's father and was taken by a sibling; the other is of a woman and includes a telephone number.

Figure 1.13 Details of Some of the Photographs Housed in the Wallet



Money is expected in a wallet, and is understandably missing, but there is no evidence to imply that the items listed above were not part of the contents of the wallet at the time of Morrison's death. All the contributors to this record selected the materials and technologies which were available to them and which seemed to best suit the purpose; for instance, the Army would logically favour cheap but robust construction for pay books, and the photographs had to be small enough to carry easily.

The absence of a musty odour and the minimal physical damage to the wallet and its contents suggests on-going care. Morrison must have carried it in a way which kept it dry and clean in spite of his difficult conditions at the Western Front. When he died in action, the wallet was not damaged; it may have been removed from his body soon after death, or he may have entrusted it to another soldier prior to his death. The military made sure that it was not damaged in transport back to his parents, and his parents and

subsequent family custodians also kept it in a dry, dark, cool place prior to donating it to the Archives. The types of deterioration present are characteristic of use, not of neglect.

Materiality and Archival Records

There is meaning in the way the records in the two examples above are physically constructed, in the way they look and feel, and in the performance of their functions.⁹⁵

Access to archival records in their original forms enables gathering of primary evidence about the contexts in which they were created, and continue to be used, through observation of the physical materials, and the construction and condition of the records.

Interaction with records, through sight, sound, smell and touch, enables first-hand knowledge of historic technologies, and forces the researcher into the place of the creator and previous users of records, repeating gestures of opening a journal and turning the pages or of removing items from a wallet. No external barrier is imposed between the past and present as they co-exist simultaneously in the act of engaging the record. The relationships between materiality and archival theory and practice will be considered in the rest of this thesis.

⁹⁵ For an excellent discussion of performance and materiality in different presentation of photographs, see Glenn Willumson, "Making Meaning: Displaced Materiality in the Library and Art Museum," in *Photographs Objects Histories*, Edwards and Hart, eds., 62-80.

CHAPTER TWO

MATERIALITY AND ARCHIVAL THEORY

Materiality and the Pioneers in Archival Theory

While archives are often quite literally overflowing with material records, archival studies has not seen the same material turn as in other areas of the humanities. There is little explicitly regarding the materiality of archival records published in archival literature. Nevertheless, several archival writers have discussed ideas with significant bearing on the materiality of records, and these are explored in this chapter.

The foundations of modern archival practice in the English-speaking world are rooted in the work of Sir Hilary Jenkinson and of T. R Schellenberg. In *A Manual of Archive Administration*, published in 1922 and the first English-language manual for the profession, Sir Hilary Jenkinson suggests that records (“documents”) become “archives” after they cease to fulfil their business purposes for their creator, and are sent to archival repositories because of their enduring value as evidence.¹ Jenkinson claims that the archivist’s most important duty is to safeguard the essential qualities of records to prevent “diminution in their evidential value: accordingly he has to guard against the destruction not only of those elements whose value as evidence is obvious to him but also of those whose value he does not perceive.”² Jenkinson considers this safeguarding duty to be the “Physical Defence” of archives, and provides instructions regarding repository design,

¹ Hilary Jenkinson, *A Manual of Archive Administration*, new and revised edition (London: Percy Lund, Humphries & Co Ltd, 1937).

² *Ibid.*, 15.

housing and binding of records for storage and use, research room access, exhibition, security measures, labelling of records and of their containers, and repairs. He provides two Rules for the Repairer: “(i) so far as possible to replace missing material by material of the same kind; and (ii) in every instance where what he has done in repair might escape observation to append a signed and dated explanatory note: *he must on no account cover his tracks.*”³ This last comment is footnoted: “To this will be added, if necessary, specimens: for instance, ... , a discarded form of binding may be thus represented.”⁴ These precautions suggest that for Jenkinson the materiality of records has value as evidence, that documentation protects the integrity of this evidence, and that value is contingent upon individual perception. Jenkinson’s emphasis on the evidential value of archival records remains influential.⁵

In the United States, T. R. Schellenberg codified new approaches developed in the 1930s to 1950s for managing records at the National Archives and Records Service in Washington in several books, including *Modern Archives: Principles and Techniques*. Schellenberg asserts that archival records are those that have secondary value – that is, longer lasting research value beyond their primary business value for their creators. Within such secondary value, archival records may have evidential value (regarding the actions taken by their creator), and informational value (regarding the people, places, and

³ Ibid., 68. Emphasis in original.

⁴ While Jenkinson may have been the first to articulate these ideas in an English-language manual for archivists, the repair principles and practices espoused by Jenkinson appear in internal reports by Sir Henry Cole, Assistant Keeper of the Carlton Ride Repository of the Public Records Office, and responsible for directing repairs in the 1840s. See Fredrick Bearman, “Conservation Principles and Ethics: Their Origins and Development,” in *IPC Conference Papers London 1997: Proceedings of the Fourth International Conference of the Institute of Paper Conservation 6-9 April 1997*, ed. Jane Eagan (London, Institute of Paper Conservation, 1997), 83-89.

⁵ Prominent Neo-Jenkinsonians include Luciana Duranti, Terry Eastwood, Sue McKemmish, Glenda Acland, David Bearman and the early work of Richard Cox.

activities which appear in the records), or both. Informational and evidential value became, and in many archives continue to be, the dominant criteria in appraising archival value, that is, in determining what should be acquired by archives and what should not.⁶ In his chapter on “Preservation Practices,” Schellenberg notes that for “the modern archivist the perishable quality of his materials is a matter of real concern,” suggesting that the archivist “must employ methods that will preserve, either in their original or some other form, the materials that are inherently perishable.”⁷ In assessing the feasibility of micrographic representation of records as an alternative to their repair, Schellenberg instructs archivists to consider how “physical form, condition, and arrangement of the records” might affect their representation, and whether the records “have intrinsic values that justify their preservation in their original form.”⁸ Through these instructions, Schellenberg indicates that records are worth retaining in their original formats when a good quality visual representation cannot be made, or if the records have intrinsic value. For Schellenberg, materiality of records does not appear to be directly linked to their archival value, since their value is contingent upon the subject (information) which appears in them, or on the transactions documented by their creator (evidence). This conception suggests that one could change any property of a record other than its written or image (subject) content without compromising its archival value.

⁶ For instance, in addition to influencing the Society of American Archives *Glossary* definition “records” cited at the beginning of Chapter 1, they form the basis for manuals of practice such as Maynard J. Brichford, *Archives and Manuscripts: Appraisal and Accessioning*, Basic Manual Series (Chicago: Society of American Archivists, 1977); and F. Gerald Ham, *Selecting and Appraising Archives and Manuscripts*, Archival Fundamentals Series (Chicago: Society of American Archivists, 1993).

⁷ T. R. Schellenberg, *Modern Archives Principles and Techniques* (Chicago: University of Chicago Press, 1956), 161.

⁸ *Ibid.*, 167.

Example: Opening Out a Soldier's Wallet 2 – Evidential and Informational Value

The written content of Arthur Morrison's diary and pay book provide some information about, and evidence of, a particular soldier's experience of military operations during part of the First World War. Nevertheless, this content would have to be compared to that of other military diaries and pay books to judge their relative evidential and informational value, as the scope of his experience – or the aspects of his experiences which he chose to record – may not provide sufficient information for military researchers to be considered to have archival value. Since the people represented in the photographs are not clearly identified, their informational and evidential value (as defined by Schellenberg) appears to be negligible. The mirror and the wallet itself, carrying neither text (aside from the address on the mirror's sheath) nor images, might be appraised as having no archival value at all.⁹

If the scope of the appraisal of informational and evidential values were broadened beyond the subject and creator, however, the materiality of the records could be evaluated as a component of their archival value. While the materiality of Morrison's wallet may act to reinforce or undermine the information or evidence in the written text, it also contributes additional evidence or information about its own context of creation. The assembled components offer evidence of a First World War soldier's personal effects, of military recordkeeping, and of the personal photograph-collecting and diary-

⁹ The acquisition file for the Matheson fonds provides no indication of appraisal decision making. At the time of its acquisition in 1988, private-records archivists relied on personal experience and "gut feeling" in selecting records, and few donations were not accepted. The retention of the wallet as a whole may have been a conscious rejection of Schellenbergian archival value, or gut feeling, or benign neglect. While the practice at the time was to separate photographs and artifacts from the textual records, the manuscripts archivist who processed and described these records did not bring the wallet to the attention of her colleague who specialised in photographic images and artifacts. (Personal communication with Elizabeth Blight, Head, Still Images, Private Records, Archives of Manitoba, 24 August 2004.)

writing activities undertaken by Morrison. Information about the wartime economy, technology and socio-cultural behaviour might be obtained from comparative analysis of the materials present and the creation technologies employed: for instance the quality of paper available for pay books provides information about the military's cost/benefit choices regarding these records.

Schellenberg's notions of informational value have had a significant influence on how preservation, evidence, information, and by extension, materiality, have been conceived in archival practice. For instance, the *SAA Glossary* definition of "information" notes that it is "independent of any medium in which it is captured as content,"¹⁰ and "evidential value" is defined as "The quality of records that provides information about the origins, functions, and activities of their creator."¹¹ These definitions limit the scope of these terms to the subject content of records and do not allow any role for their materiality.

Some further context for the gulf between Schellenbergian archival value and materiality is described by James O'Toole in "On the Idea of Permanence." O'Toole indicates that, since the nineteenth century, American archives and historical societies have attempted to ensure the permanence of their holdings by providing safe storage conditions, and by creating reproductions.¹² This has led to a conceptual distinction

¹⁰ Richard Pearce-Moses, *Glossary of Archival and Records Terminology*, Society of American Archivists, 2005, available at http://www.archivists.org/glossary/term_details.asp?DefinitionKey=106 (accessed 27 February 2006).

¹¹ Ibid., http://www.archivists.org/glossary/term_details.asp?DefinitionKey=220 (accessed 21 March 2006).

¹² Archives and historical organizations often privileged some records with published transcriptions. For instance, the Hudson's Bay Records Society published thirty-three volumes of

between “the permanence of the archival documents themselves and the permanence of the information they contained.”¹³ Because the archival value of a record may endure longer than the significant components of its material composition, it is desirable to extend the life of some aspects of the record through their representation as part of a new artifact. A clear distinction is drawn between preservation of records, and preservation of records *in their original forms*.

The term “re-formatting” is frequently used by archivists and librarians to describe the representation¹⁴ of “information” from a source format¹⁵ on a different destination format; the representations are implied to have archival value equivalent to that of the source documents. Thus “information” in the archival sense can be reduced to only those aspects of records which can be represented on another medium or substrate.¹⁶ This separation allows justification of the destruction of re-formatted source records on the basis that they have been rendered redundant because their archival (information) value has been transferred to a more permanent medium, such as polyester-based silver-halide microfilm. In sharp contrast to Jenkinson’s concerns for preserving the materiality of records as part of their value as evidence, material records are conceptually limited to

records, including Rich, E. E., ed., assisted by A.M. Johnson, *Moose Fort Journals 1783-1785*, with an introduction by G. P. de T. Glazebrook., The Hudson Bay Record Society Publications, volume XVII (London: The Hudson’s Bay Record Society, 1954). A discussion of textual editing is beyond the scope of this thesis.

¹³ James O’Toole, “On the Idea of Permanence,” *American Archivist* 52 (Winter 1989): 16. It should be noted that historical societies usually collected records because of their usefulness as documents concerning, or associated with, particular subjects or themes.

¹⁴ The term “reproduction” is most commonly used in conjunction with microphotography to produce microfilm or microfiche images of records. I have used “representation” to emphasize the construction of a version of the record after acquisition by an archives, and use “reproduction” or “copy” only for records which were intended by their creators to be multiplied and interchangeable in order to serve their original function, such as photographic prints, or architectural reproductions

¹⁵ The terms “form” and “format” are generally relatively interchangeable in archival practice.

¹⁶ For an unusually broad view of “information” within the information science field, see the earlier discussion of work by Michael Buckland in Chapter One.

being passive supports or containers *for* information rather than themselves *being* information.

Materiality, “Intrinsic Value,” and Diplomatics

As indicated above, Schellenberg proposed that records can have intrinsic value which justifies their preservation in their original form, but he provided no guidance regarding the identification or assessment of intrinsic value. In an effort to manage the volume of material in its care, the National Archives and Records Service (NARS)¹⁷ in the United States considered replacing paper-based archival records with representations, such as microfilm, that would take up less storage space. In 1982, a NARS committee developed *Intrinsic Value in Archival Material*, a list of “Qualities and Characteristics of Records With Intrinsic Value” to systematise the assessment of which records should continue to be retained in their original forms.¹⁸ Nine criteria are listed, and a brief description guides the intended interpretation of each criterion. Terms such as “aesthetic,” “curious,” or “questionable,” are used to describe records with intrinsic value but these are not defined, no methodology to quantify or contextualize these concepts is suggested, nor is there an explanation of why any record could not meet a criterion such as “value for use

¹⁷ This institution is now known as the National Archives and Records Administration.

¹⁸ National Archives and Records Administration (formerly National Archives and Records Service), *Intrinsic Value in Archival Material*, Staff Information Paper Number 21 (1982), 6 pp., available at <http://www.archives.gov/research/alic/reference/archives-resouces/archival-material-intrinsic-value.html> (accessed 8 September 2008). Similar language is present in Library and Archives Canada’s (LAC) Multi-Institutional Disposition Authorities which allow for destruction of paper “source records,” except when they “may have intrinsic value based on unusual physical characteristics or age,” followed by a short list of examples of particular record genres or record technologies. For instance, photographs, slides and negatives are singled out, without explanation of what is inherently unusual about these photographic records when the LAC already has over twenty million photographic images in its collections. See <http://collectionsCanada.ca/government/disposition/007007-1027-e.html> (accessed 8 September 2008).

in exhibits.”¹⁹ The assumption appears to be that records with intrinsic value will be considered by archives users as only isolated technological artifacts (or only within groups of physically similar artifacts), rather than as the material culture of their creators, to be understood within the context of their creation and their use over time. Intrinsic value, as discussed in this document, does not itself appear to be intrinsic²⁰ to the records, but to be externally constructed by archivists through interpretation of their qualities and characteristics in relation to a narrow perception of potential uses.²¹

In her 1996 critique of *Intrinsic Value in Archival Material*, Shauna McRanor examines historical and philosophical concepts of intrinsic value as well as concepts of archival theory.²² She argues that the NARS document is seriously flawed because it reflects NARS practice rather than “true” (Jenkinsonian) archival theory, and because their conception of value is contingent on an archivist’s personal perspective. McRanor asserts the primacy of records as evidence of activity, and warns against underestimating the integrity of records in their original forms because “it is the combination of the intellectual and physical components of the archival document that constitute [a record’s] form.”²³

¹⁹ Indeed, an exhibition can draw attention to the very absence of records, such as a National Archives of Australia website which includes descriptions of documents related to the founding of Australia but whose locations are unknown. See <http://foundingdocs.gov.au/item.asp?dID=36> and <http://foundingdocs.gov.au/item.asp?dID=69> (both accessed 8 September 2008).

²⁰ In common usage intrinsic means “inherent, essential; belonging naturally.” *Paperback Oxford Canadian Dictionary*, 2004, s.v. “Intrinsic.”

²¹ This document could be seen as a guide for constructing a secondary collection of records to be maintained in original form. This has the very interesting effect of creating a kind of virtual sub-fonds of NARS records with intrinsic value, and explicitly exposing the power of archives in shaping context and researcher experience.

²² Shauna McRanor, “A Critical Analysis of Intrinsic Value,” *American Archivist* 39 (Fall 1996): 400-411. To my knowledge this is the only major published critical assessment of the NARS document.

²³ *Ibid.*, 410.

In Archivschule Marburg's 1996 publication *Intrinsic Value of Archive and Library Material*, Angelika Menne-Haritz and Nils Brubach assert a broader role for records' materiality: "The production of concrete material as an expression of communication ... places the required texts in a chronologically and geographically definable environment. The external formal features link texts to the material world and thus to their history and their transitoriness."²⁴ These formal, "testimonial" qualities are discussed as "Prerequisites for Preservation of the Original," and the majority are similar to the NARS "Qualities and Characteristics of Records with Intrinsic Value."²⁵ Notably the description provided for the prerequisite "Testimony as to the genesis of the work," refers to evidence of the process of editing manuscripts in an artistic context, observing that "quite minimal indications can be clues for completely new insights and hitherto unknown connections."²⁶ This interest in the records themselves as a source of evidence about the context of their creation indicates an awareness of the value of the materiality of records, albeit limited here to "artistic" work.²⁷

The language used in the Archivschule Marburg document derives from diplomatics, which is the one area of archival literature which does call for the systematic

²⁴ Angelika Menne-Haritz and Nils Brubach, *The Intrinsic[sic] Value of Archive and Library Material*. List of Criteria for Imaging and Textual Conversion for Preservation. Results of a DFG Project. Available as a two-part document at <http://www.archivschule.de/content/130.html>, and ...content/131.html (accessed 2 May, 2007). This quotation appears in < ...content/130.>

²⁵ The term "testimony" figures prominently in these criteria and "evidence" appears only as part of the phrase "legal evidence." I have assumed the distinctions implied by the choice of the terms "testimony" and "evidence" in this translation to be a matter of degree rather than kind. Since the nuances of this translation are opaque to me, I have taken both "evidence" and "testimony," as used here to be roughly the same as "evidence" in the English-speaking archival tradition.

²⁶ Ibid.

²⁷ For an example of "genetic" analysis, see Claire Bustarret, "Paper Evidence and the Interpretation of the Creative Process in Modern Literary Manuscripts," in *Looking at Paper: Evidence & Interpretation: Symposium Proceedings, Toronto 1999*, eds. John Slavin, Linda Sutherland, John O'Neill, Margaret Haupt and Janet Cowan (Ottawa: Canadian Conservation Institute, 2001), 88-94.

examination of the physical characteristics of textual records. Diplomatic analysis of documents has been used for hundreds of years to develop “an understanding of administrative actions and the functions generating them.”²⁸ Luciana Duranti identifies the extrinsic elements of documentary form as “the material make up of the document and its external appearance,” that is, “the medium, the script, the language, the special signs, the seals and the annotations.”²⁹ She defines intrinsic form as the intellectual organization of the structure of the document, for instance the title and date of the document.³⁰ (The intrinsic form, or elements, of records should therefore not be confused with their intrinsic value.) In her series of articles on diplomatics, Duranti provides a diplomatic analysis of the intrinsic elements of a sample document, but not of its extrinsic elements, because those “can only be criticized on the basis of the original documents.”³¹ While the link between the tangible qualities of records and their functions appears to be recognized and valued for diplomatic analysis, diplomatics does not appear to consider physical evidence of care by custodians or changes in the functions of the records after their initial creation and transmission.

Example: Opening Out a Soldier’s Wallet 3 – Intrinsic Value

Arthur Morrison’s wallet has been retained in its current form for approximately ninety years. The Archives of Manitoba did not simply acquire the “documentary” content (i.e. the diary, pay book and photographs), but accepted the full wallet

²⁸ Luciana Duranti, “Diplomatics: New Uses for an Old Science (Part V),” *Archivaria* 32 (Summer 1991): 6. See also Leonard E. Boyle, “Diplomatics,” in *Medieval Studies: An Introduction*, ed. James M. Powell (Syracuse: Syracuse University Press, 1976), 69-101.

²⁹ Duranti, *ibid.*, 6-7.

³⁰ *Ibid.*, 15.

³¹ *Ibid.*, 17.

assemblage as a donation. This suggests that some aspect of the materiality of the record had sufficient value for retention by its custodians in Morrison's family as well as by the Archives. According to the NARS criteria for determining intrinsic value, however, the wallet seems to have limited intrinsic value. The contents are typical of soldier's wallets, and many First World War soldier's diaries, pay books, and photographs are found in archives around the world. The record might have value for exhibition (but no more or less value than any other archival record), and a researcher might be interested in wallets, or mirrors, or pay books, or mass-produced bindings as physical forms (but no more or less than for any other material in the archives). While it stands as evidence of its own "genesis," the diary is not an "artistic" creation, so it also does not appear to have intrinsic value according to the Archivschule Marburg criteria.

Here we see that the definitions of intrinsic value – as distinct from informational or evidential value – are highly limited in contributing to the appraisal of these records. If the materiality of records was understood to be information or evidence, the concept of "intrinsic value" would be redundant at best. If all records were understood to be a product of their societal context, records related to "artistic" processes should not be privileged over records of the processes of business, of governance, and of individuals living their lives. If records were understood as material culture, not just their form, but all sensory and kinetic aspects of the records, as well as the interpretive value of their material composition and condition, could be used to enhance understanding of the records themselves, emphasizing rather than undermining the context of these records as records.

Late Twentieth-Century Shifts in Archival Theory

The archival literature of the 1980s and 1990s reflects several synchronous trends which inspired major shifts in thinking about records and appraisal of archival value. The accumulating masses of records in archives, and the complexities of preserving records created with short-lived materials or requiring obsolescent retrieval technologies, called for more effective appraisal strategies and preservation strategies than those already in use. Assessment of the evidential value and informational value of records as described by Schellenberg required subject knowledge of the contents of the records, although analyses of individual items would be an impossible task in almost all archives. Additionally, an individual archivist was expected to appraise this evidential and informational value against the current and future needs of historian researchers – another impossible task, and one that potentially excluded unanticipated users of records and uses for records.

There was also a sense that archives should reflect “the broad spectrum of human experience,”³² along with a growing awareness of the potential implications of a postmodern environment, and the development of specialized professional training programs and related literature. In 1981 Frank Burke noted that although American archivists had developed many methodological and administrative manuals, “by asking ‘what’ and ‘how’ instead of ‘why,’ these archivists did not get behind the procedures, methods, and technologies of archival work to probe its deeper meaning, which is the

³² This challenge was posed by F. Gerald Ham, in “The Archival Edge,” in *A Modern Archives Reader: Basic Readings on Archival Theory and Practice*, eds. Maygene F. Daniels and Timothy Walch (Washington: National Archives and Records Service, 1984), 329.

study of records and their relationship to society at large.”³³ These limitations began to be challenged on several fronts, starting with a re-examination of foundational definitions and principles of the profession.

The archival principle of provenance “requires the identification of the whole of the records created or accumulated and used by one individual, family, or organization, and that these be preserved and described as one fonds. Provenance thereby protects the evidential value of records and makes visible the acts and deeds from which they emanate.”³⁴ Provenance is related to the concept of original order, which “focussed on preserving the logical structure and internal arrangement of the records of each creator.”³⁵ In 1985 David Bearman and Richard Lytle published “The Power of the Principle of Provenance” in which they discussed the ways in which provenance was being applied as an archival retrieval tool.³⁶ They suggested archives move away from assuming mono-hierarchical schemata as the organizing system for all organizational records, and instead focus on developing a “detailed understanding of both the structure and processes of the organizations which created the records in question.”³⁷ This proposal shifted the nature of provenance from the physical organization and subsequent archival arrangement of records under the name of a single creating organization, to the larger conceptual framework of the functional context of creation.

³³ Cited in Terry Cook, “From Information to Knowledge: An Intellectual Paradigm for Archives,” in *Canadian Archival Studies and the Rediscovery of Provenance*, ed. Tom Nesmith (Metuchen, NJ: Scarecrow Press, 1993): 217. (Originally published 1984)

³⁴ Wendy M. Duff and Verne Harris, “Stories and Names: Archival Description as Narrating Records and Constructing Meanings,” *Archival Science* 2 (2002): 267.

³⁵ Terry Cook, “The Concept of the Archival Fonds in the Post-Custodial Era: Theory, Problems and Solutions,” *Archivaria* 35 (Spring 1993): 25.

³⁶ David Bearman and Richard H. Lytle, “The Power of the Principle of Provenance,” *Archivaria* 21 (Winter 1985-86): 14-27.

³⁷ *Ibid.*, 16.

The Bearman and Lytle article appeared in the Canadian archival journal, *Archivaria*, which was already serving as a forum for developing new ideas related to provenance and the role of archives. An appreciation for the value of understanding and revealing records' context of creation to enable a more complete knowledge of their content was already under development in Canada. For instance, in the late 1970s and 1980s, Hugh Taylor applied the communication theories of Harold Innis and Marshall McLuhan to emphasize the functional interactions between societies and their records,³⁸ and Luciana Duranti's 1989-1991 *Archivaria* essays sparked a renewal of interest in diplomatics as a tool for understanding the administrative creation context for individual records. In 1993 many of these articles were published together in *Canadian Archival Studies and the Rediscovery of Provenance*, edited by Tom Nesmith.

While writers like Bearman and Duranti have mainly been concerned with management of organizational records, Nesmith has taken a wider view, calling for archivists to apply historical research methodologies "not to the content of the records, but to the records themselves and to the evidential context which gave them birth."³⁹ As early as 1982, Nesmith predicted that social historians would take a "greater interest in artifacts as awareness of the utility of material evidence improves,"⁴⁰ and advocated for

³⁸ See for instance Hugh Taylor, "The Media of Record: Archives in the Wake of McLuhan," *Georgia Archive* 6 (Spring 1978): 1-10. For a more recent indication of Innis' and McLuhan's influence on Canadian archives, see Terry Cook, "Archives as Media of Communication," available at <http://www.lac-bac.gc.ca/innis-mcluhan/00203-4040-e.html> (accessed 19 March 2007). This is one of a series of scholarly essays available at Library and Archives Canada's website: *Old Messengers, New Media: The Legacy of Innis and McLuhan*. Work by Hugh Taylor will be discussed later in this chapter.

³⁹ Tom Nesmith, "Introduction: Archival Studies in English-speaking Canada and the North American Rediscovery of Provenance," in *Canadian Archival Studies and the Rediscovery of Provenance*, ed. Tom Nesmith (Metuchen, NJ: Scarecrow Press, 1993), 14.

⁴⁰ Tom Nesmith, "Archives From the Bottom Up: Social History and Archival Scholarship," *Archivaria* 14 (Summer 1982): 11. As discussed in Chapter 1, historians have made relatively limited use of materiality of records as a source.

archivists to become historians of archival records. In later writings, Nesmith developed, returned to, and expanded his discussion of provenance and of the role of archivists in making evident records' provenance;⁴¹ most recently he has focussed on how records shape, and are shaped by, what he terms the "societal provenance" of records.⁴² Nesmith has explicitly discussed the materiality of records as part of their provenance, arguing against the notion of media as a neutral carrier of information: "The record *originates* in a medium used to make it, as well as in the ideas and purposes of its inscribers. Indeed, their ideas *about* a medium may be a part of the message they convey."⁴³

David Bearman has been a pivotal figure in reconsidering the nature of archival records in the electronic era, and some of his earlier writings were gathered and published in 1994 in *Electronic Evidence: Strategies for Managing Records in Contemporary Organizations*. The context of records creation is critical in developing approaches to managing archival electronic records. Bearman is primarily concerned with the retention of the evidential value of records, which he feels is "determined by the degree to which that context is still discernible."⁴⁴ Provenance is therefore critical in developing

⁴¹ See for instance: "What's History Got to Do With It?: Reconsidering the Place of Historical Knowledge in Archival Work," *Archivaria* 57 (Spring 2004): 1-27; and "Reopening Archives: Bringing New Contextualities into Archival Theory and Practice," *Archivaria* 60 (Fall 2005): 259-274.

⁴² "Document creation, use, and archiving have social origins. ... Socio-economic conditions, social assumptions, values, ideas, and aspirations shape and are shaped by their views and recording and archiving behaviour." Tom Nesmith, "The Concept of Societal Provenance and Records of Nineteenth-Century Aboriginal-European Relations in Western Canada: Implications for Archival Theory and Practice," *Archival Science* 6 (December 2006): 352. An earlier discussion of how provenance of records go beyond the immediate creator to include sponsors, donors and users appears in Nesmith, "Seeing Archives: Postmodernism and the Changing Intellectual Place of Archives," *American Archivist* 65 (Spring/Summer 2002): 24-41.

⁴³ Nesmith, "Concept of Societal Provenance," 354. Emphasis in original.

⁴⁴ David Bearman, *Electronic Evidence: Strategies for Managing Records in Contemporary Organizations* (Pittsburgh; Archives and Museum Informatics, 1994), 148.

approaches to managing archival electronic records: “Because evidential data has meaning only in the context of its use, and because that context is not self-evident for machine-readable data in the same way that it is for paper records, which leave behind their ‘original order’ and the evidence of how they were exploited in their active setting, archivists will need to concern themselves in the electronic era with the preservation of system functionality.”⁴⁵ Bearman suggests that this contextual information has always been present in paper-based recordkeeping systems: “Evidential historicity⁴⁶ is captured in records systems which reflect the social and mechanical technology of the time. ... Explicit recording of contextual evidence is rare in paper-based environments because ... given the amount of implicit evidence provided by paper-based systems, [it is] often unnecessary.”⁴⁷ For Bearman, contextual evidence still resides in paper-based records *because they are artifacts of the context of their creation and use*. The materiality of records is clearly bound to the functional context which provides their meaning.⁴⁸

⁴⁵ Ibid., 27-28.

⁴⁶ “Evidential historicity is the sum of all information that can be determined about ... the relationship between a record and an activity.” Ibid., 148.

⁴⁷ Ibid., 152. In Chapter Three of this thesis I will argue, by contrast, that material evidence of paper-based record systems do not necessarily remain self-evident, and that this evidence is not deliberately preserved through “traditional” archival practice.

⁴⁸ A shift away from regarding records primarily as information to describing them as evidence is clear from the terms used in the examples above. While Jenkinson and Schellenberg did not specifically define “evidence,” definitions of “records” and “evidence” have received considerable attention in recent publications such as Richard Cox, *Managing Records as Evidence and Information* (Westport, CT: Quorum Books, 2001); Brien Brothman, “Afterglow: Conceptions of Record and Evidence in Archival Discourse,” *Archival Science* 2 (2002): 311-341; Jonathan Furner, “Conceptual Analysis: A Method for Understanding Information as Evidence, and Evidence as Information,” *Archival Science* 4 (2004): 233-265; Jennifer Meehan, “Towards an Archival Concept of Evidence,” *Archivaria* 61 (Spring 2006): 127-146; and Geoffrey Yeo, “Concepts of Record (1): Evidence, Information, and Persistent Representations,” *American Archivist* 70 (Fall/Winter, 2007): 315-343. Although essential qualities of records in an electronic environment will be discussed later in this chapter, a more thorough discussion of these shifting and contested definitions of records and evidence in the archival literature is beyond the scope of this thesis.

The importance of understanding the societal context of records creation, which had figured in articles by Nesmith and Taylor, was taken to a new level with the 1987 English-language publication of Hans Booms's "Society and the Formation of a Documentary Heritage: Issues in the Appraisal of Archival Sources."⁴⁹ Booms challenged the legitimacy of traditional archival appraisal as an objective strategy for determining archival value and creating the documentary record. Instead of relying on archivists' personal sense of evidential or informational value related to the utility of the records for administrators or scholarly users – inevitably biased by the administrative hierarchies the practices and values of the state – Booms called for archivists to perform an analysis of the value of the records based on their significance to society. While Booms was mainly concerned with public records in this article, public support and sanction is perhaps most critical for public archives which also have a mandate to create a representative sample of the private records of business, organizations and individuals within their jurisdiction. A summary of this position has been articulated by Verne Harris:

Records are the products of processes involving complex interactions between creators of records (structures, agencies, people), socio-historical trends and patterns (functions, activities, programmes), and patterns clients/ customers/ citizens. All these elements constitute the dynamic contextual milieu in which records are created. The purpose of appraisal is to secure an appropriate documentary reflection of this milieu. Records which provide the best – the richest, most focused – *evidence* of this milieu have archival value.⁵⁰

⁴⁹ Hans Booms, "Society and the Formation of a Documentary Heritage: Issues in the Appraisal of Archival Sources," *Archivaria* 24 (Summer 1987): 69-107.

⁵⁰ Verne Harris, *Exploring Archives: An Introduction to Archival Ideas and Practice in South Africa* (Pretoria: National Archives of South Africa, 2000), 40-41. This understanding of records and appraisal theory is clearly influenced by Terry Cook's "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), 38-70.

The broad functional context of records, of their creation, and their on-going preservation within archives for on-going use by society connect these new archival perspectives to the larger contemporary trends in cultural theory and cultural studies. By the late 1980s Terry Cook and others at the National Archives of Canada sought to find more transparent and accountable ways of appraising huge volumes of government records, while deliberately shaping a more socially valuable public archival record. Influenced by postmodern theorist Michel Foucault's observations on the historical specificity of social practices, as well as by the work of Hans Booms and Hugh Taylor, Cook saw "the possible linkages between society and records, and between societal values and archival appraisal values, and the kind of research necessary to uncover them."⁵¹ In order to assess and select records which provided the best evidence of their dynamic contextual milieu, Cook led the development of "macroappraisal" theory and practice: "Macroappraisal assesses the societal value of both the functional-structural context and work-place culture in which the records are created and used by their creator(s), **and** the interrelationship of citizens, groups, organizations – 'the public' – with that functional-structural context."⁵² Cook suggests that the records identified as archival through the macroappraisal process "will better reflect 'societal values,' simply because macroappraisal looks at the processes (and for documentary evidence of them) whereby society forms (and continually re-forms) itself accordingly to its own ever-

⁵¹ Terry Cook, "Macroappraisal in Theory and Practice: Origins, Characteristics, and Implementation in Canada, 1950-2000," *Archival Science* 5 (December, 2005): 122. Macroappraisal theory and methodology has influenced major federal government records appraisal initiatives in Australia, New Zealand, South Africa, England and Scotland.

⁵² *Ibid.*, 101. Emphasis in original.

changing values.”⁵³ The macroappraisal approach systematizes the new attention to provenance, as discussed above.

In the 1990s Cook called for the focus of appraisal to “shift 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.”⁵⁴ The archivist should not start with appraisal of evidential or informational value based on the item-level content of the records (which Cook differentiates as micro-appraisal), but should instead examine in detail the functions which result in the creation of a record, and the structures which affect the creation of those records. Cook has taken care to qualify that by advocating “mind over matter” approach, he does not advocate this Cartesian split,⁵⁵ but only a break from past archival practice “to understand why records were created rather than what they contain, how they were created and used by their original users rather than how they might be used in future, and what formal functions and mandates of the creator they supported rather than what internal structure or physical characteristics they may or may not have.”⁵⁶ The perspective which defines the intrinsic value of records by their formal physical qualities or by their potential uses as isolated objects is a good example of the past emphasis on matter over mind which Cook and others have criticized.⁵⁷ Material culture study, with

⁵³ Ibid., 131.

⁵⁴ Terry Cook, “Mind Over Matter,” 38.

⁵⁵ Ibid., 43-44.

⁵⁶ Ibid., 47. Cook notes that diplomatic analysis of the physical and structural characteristics of records can be a useful aid in contextual research, but that it should follow macroappraisal. (“Mind Over Matter,” 65, note 27) Commenting on Cook’s approach, Heather MacNeil stressed a need “to keep in mind what quantum mechanics has taught us, which is that mind and matter are equal and inseparable. The discernment of the mind in the matter, therefore, must remain the bottom line of any functional and structural analysis.” Heather MacNeil, “Archival Theory and Practice: Between Two Paradigms,” *Archivaria* 37 (Spring 1994): 15.

⁵⁷ See for instance Glenda Acland, “Managing the Record Rather Than the Relic,” *Archives and Manuscripts* 20 (May 1992): 57-63.

its focus on how physical objects have acted, and interacted, within their societal context, is closely aligned with the perspective espoused by Cook and other archival contextualists, and provides a model for reconnecting mind and matter.

Example: Opening Out a Soldier's Wallet 4 – Provenance and Societal Context

The Archives of Manitoba acquired Morrison's wallet and its contents from his nephew Norman Matheson, along with other Matheson family records. This collection bears Matheson's name as its creator/compiler, and the wallet is treated as "file" related to Arthur Morrison as subject/creator; this is, therefore, the records' provenance following the traditional archival usage of "provenance" as the chain of physical custody. If we shift our attention from the Matheson family collection to the dynamic contextual milieu within which this group of items was created, however, a broader and richer picture emerges.

The wallet is a complex personal record, a contextually linked assemblage brought together by, or for, a particular individual – Arthur Morrison – within the functional context of his active military service. The assemblage is a concentrated mixture of business transactions (pay book), work tools (mirror), and personal choices (photographs, diary). These are bounded, both conceptually and physically, by the wallet itself.

Arthur Morrison was clearly the writer of the diary, the owner of the wallet and the mirror. He was a direct or indirect agent in the creation of the photographs, by purchasing a photographer's services, by requesting the photographs from home or by inspiring others to send him photographs; he was certainly the owner of this collection of

photographs. The pay book, however, was created and maintained by the Army bureaucracy while it was in Morrison's custody. All these components were actively used by Morrison during his life. After Morrison's death, the Army stamped his pay book "Dead," rendering the account closed. The whole wallet was sent to Morrison's mother, re-creating it as a symbol of the dead soldier son, and it appears to have been maintained and passed on in this state within his family. In the Archives, the wallet is available for public research use for an unlimited range of subjects. As it moves between these contexts, the wallet is conceptually re-created for each new user and research purpose.

Every physical element of the Morrison records has its own complex socio-cultural and technological history. Raw goods from industrial manufacturing have been assembled into consumer goods for soldiers, civilians and government – wallets, booklets, mirrors and photographic printing paper – these are primary evidence of events in the histories of science, technology, industry and economics; for instance, the creation of the photographic printing paper alone would encompass animal husbandry and abattoirs (gelatine in the image layer and as paper size), mining and industrial chemistry (silver), and forestry and the pulp and paper industry (paper). As noted in the descriptions in Chapter One, the size, shape, colour, and other properties of the materials which make up these records, and the presence or absence of certain pages, smells, and signs of wear, have been shaped by social and technological processes and interactions, and these records in turn shape the user's experience in handling them. These materials and technologies are both tangible evidence of the records' societal provenance and information about their societal context.⁵⁸

⁵⁸ Management Accountancy professor Gary Spraakman has traced the availability of accounting technologies by observing their presence and use in the Hudson's Bay Company Archives

Before going on to consider how records have been further reconceptualized in the electronic era, works by several archivists with a bearing on materiality and functional context should be noted. Influenced by the communication theories of Marshall McLuhan, Hugh Taylor frequently describes the value of understanding the materiality of records as integral to the messages they carry throughout his writing, suggesting in 1978:

We have taken our record very much for granted: ...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 itself. Information and the medium of record must together be confronted by the reader, at which point they both become a communication and pass from a static to a dynamic state.⁵⁹

Taylor also reflects repeatedly on the history of record creation and recordkeeping, from the oral tradition to electronic records: "the medium imposes its own meaning which cannot be separated from the document. We cannot recapture the act; all we have is the document, the residual instrument, and that is why the document *became* the act or deed."⁶⁰ Taylor advocates for a more holistic view of archival records as

(HBCA). Personal communication with Anne Morton, Archivist, HBCA, 15 December 2004. Spraakman's work includes Gary Spraakman and Julie Margret, "The Transfer of Management Accounting Practices From London Counting Houses to the British North American Fur Trade," *Accounting, Business and Finance History* 15 (July 2005): 278-292; and Gary Spraakman and Julie Margret, "Sir George Simpson: 19th Century Fur Trade Governor and Precursor of Systematic Management," *Management Decision* 43 (March 2005): 278-292.

⁵⁹ Taylor, "The Media of Record," 64. See also the quotation from "'Heritage' Revisited" in the Introduction to this thesis. In spite of the connection between the contextual milieu of records creation and material culture study, archival records have only very rarely been described as material culture in the archival literature.

⁶⁰ Hugh Taylor, "Transformation in the Archives: Technological Adjustment or Paradigm Shift?," *Imagining Archives: Essays and Reflections by Hugh A. Taylor*, ed. Terry Cook and Gordon Dodds (Lanham, MD and Oxford: The Scarecrow Press, 2003), 125, (originally published in 1987). Key papers devoted to these topics include "'My Very Act and Deed': Some Reflections on the Role of Textual Records in the Conduct of Affairs," 131-148, (originally published 1988-

cultural tools, or instruments “for the conduct of affairs or relationships,”⁶¹ calling for archivists to explore the relationships between records and other manifestations of social activities and to make “leaps of the imagination from documents to the artifacts of material culture.”⁶²

In a 1993 article James O’Toole calls for attention to “the *impractical* reasons for the creation of records”⁶³ to balance mainstream American Schellenburgian focus on the utilitarian purposes of record-making and recordkeeping. He argues that “appraisal decisions ... must be founded on a reasonably complete understanding of the nature of records and the roles they have played; if some of those roles are ignored, the appraisal will necessarily be flawed.”⁶⁴ O’Toole notes how several generations of family information, constructing a family unit through time and space, may be recorded in a Bible which is rarely read, but which still acts as a recordkeeping system. The form of family Bibles is more symbolic than practical: they are usually large and bulky, with thick heavy covers, bound in real or simulated leather, often gilded and embossed; frequently the pages do not open well or turn easily and the spine and joints are easily damaged. The physically impressive scale and appearance of ceremonial volumes or documents may represent the immutability of the text (sacred or secular), and the respect of the adherents. Records may be revered and enshrined (Constitutions, charters), or

89); “Chip Monks at the Gate: The Impact of Technology on Archives, Libraries, and the User,” *Imagining Archives*, 173-183, (originally published 1991-92); and “Opening Address to the ‘Documents That Move and Speak’ Symposium,” 184-195. All page references are to *Imagining Archives*.

⁶¹ Hugh Taylor, “‘Heritage’ Revisited: Documents as Artifacts in the Context of Museums and Material Culture,” *Archivaria* 40 (Fall 1995): 9.

⁶² Hugh Taylor, “Recycling the Past: The Archivist in the Age of Ecology,” *Imagining Archives*, 205, (originally published 1993).

⁶³ *Ibid.*, 238.

⁶⁴ James O’Toole, “The Symbolic Significance of Archives,” *American Archivist* 56 (Spring 1993): 237.

reviled and symbolically destroyed or negatively re-contextualized (records of oppressive administrations). O'Toole also looks at the symbolic importance of the act of record-making through copying devotional texts, signing documents attesting to one's presence or support, writing to our democratic representatives, and recording personal thoughts, activities and business in diaries and accounts.⁶⁵

In "We Make Our Tools and Our Tools Make Us: Lessons for Photographs for the Practice, Politics, and Poetics of Diplomats," Joan Schwartz considers the applications of analytical tools developed for textual documents for photographs. She makes evident the shift in attention from records' subject content to records' functional context of creation: "Photographs are documents, created by a will, for a purpose, to convey a message to an audience. To understand them as the product of actions and transactions, either bureaucratic or socio-cultural, we must return them to the action in which they participated. It is their functional context that transforms photographic images into archival documents."⁶⁶ (This principle is media neutral – any media could be substituted for "photographs," as the choice of media is itself a by-product of their context of creation.) Schwartz further emphasizes the need to understand the technologies, and the histories of those technologies of records as part of their functional context; it is functional context that gives rise to intrinsic and extrinsic form in records, and evidential

⁶⁵ O'Toole returns to this theme of the symbolic power of records in James O'Toole, "Cortes's Notary: The Symbolic Power of Records," *Archival Science* 2 (2002): 45-61. "It is a bias of literate people such as ourselves to suppose that records, books, manuscripts and other materials mean only what the words in them say. Closer examination reminds us that there is usually more to the story than that, that layers of meaning – practical, symbolic, cultural – are embedded in record making and the records made." (58)

⁶⁶ Joan Schwartz, "We Make Our Tools and Our Tools Make Us: Lessons for Photographs for the Practice, Politics, and Poetics of Diplomats," *Archivaria* 40 (Fall, 1995): 42. See also

value is contingent on functional context.⁶⁷ The material composition and construction of records is, therefore, understood as material evidence of functional context. In a later article, Schwartz discusses the effect of the routine disbinding of albums and the separation and removal of photographs in the name of preservation. She writes:

In the process, evidential value embedded in the physical structure of the album, its sequence of pages, the placement of images, the juxtaposition of words and images, and the larger documentary universe of which it is a part is sacrificed in a misguided effort to ensure the long-term physical stability of individual photographs. Both the meaning of the album, not simply as a housing for the images, but as a document in its own right, as well as the information it was compiled to communicate, are lost.⁶⁸

Brien Brothman is among the few archivists who have come close to discussing the sensory properties of records by identifying them as “cognitive memory artifacts, rather than as merely legal, evidence-bearing artifacts.”⁶⁹ Brothman differentiates between history and memory and their implications for the work of the archivists: “Memory’s archivist is interested in the past’s residue as material for promoting integrated knowledge, social identity, and the formulation of group consciousness; history’s archivist is interested in finding records and, in them, uncovering evidence to develop a linear narrative about a past that is ours, yet different from us.”⁷⁰ He recognizes that organizational memory resides “in multiple organizational memory systems. It resides in individuals, in groups, and in various physical embodiments – artifacts, records, and buildings.”⁷¹

⁶⁷ Ibid., 49, 51.

⁶⁸ Joan M. Schwartz, “Coming to Terms with Photographs: Descriptive Standards, Linguistic “Othering,” and the Margins of Archivry,” *Archivaria* 54 (Fall 2002): 157.

⁶⁹ Brien Brothman, “The Past that Archives Keep: Memory, History, and the Preservation of Archival Records,” *Archivaria* 51 (Spring 2001): 52.

⁷⁰ Ibid., 62.

⁷¹ Ibid., 73.

In “Touchstones: Considering the Relationship between Memory and Archives,”⁷² Laura Millar explores memory concepts and processes and their relationship to archives. She notes that the different manifestations of records and of archives, or “vehicles of memory,” spring from their cultural context.⁷³ She concludes that “records and archives find their place in the process of memory: as evidence, as memory triggers, as touchstones – acquired, preserved, articulated, and mediated by society in order to contribute to the construction of collective knowledge, identity, and, perhaps, wisdom.”⁷⁴ The role of an archives, therefore, is to “seek out the records of its society and make those records available so that the society may use them not just to document events but also to interpret, shape, and articulate memories.”⁷⁵ Brothman and Millar extend memory and cultural studies scholarship into archival studies and draw attention to non-written cognitive processes of communication related to memory. The materiality of records embodies their functional context, and direct sensory interaction with records activates the potential for a fuller understanding of their creation within a dynamic contextual milieu.

⁷² Laura Millar, “Touchstones: Considering the Relationship between Memory and Archives,” *Archivaria* 61 (Spring 2006): 105-126. For some other discussions of memory within archival literature, see for instance Barbara L. Craig, “Selected Themes in the Literature on Memory and Their Pertinence to Archives,” *American Archivist* 65 (Fall/Winter 2002): 276-289; Kenneth E. Foote, “To Remember and Forget: Archives, Memory, and Culture,” *American Archivist* 53 (Summer 1990): 378-392; and Michael Piggott, “Archives and Memory,” in *Archives: Recordkeeping in Society*, Topics in Australasian Library and Information Studies No. 24, eds. Sue McKemmish, Michael Piggott, Barbara Reed and Frank Upward (Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, 2005): 299-327.

⁷³ Millar, “Touchstones,” 122.

⁷⁴ *Ibid.*, 125.

⁷⁵ *Ibid.*, 122.

Opening Out a Soldiers Wallet 5 - Societal Context and Memory

In removing and examining the contents of Morrison's wallet we step into a fragment of his life. Uncovering and arranging photograph after photograph, we may consider them as mementos, reflecting how the subject, or the giver, wished to be thought of and what images, feelings, and ideas they wish to evoke in Morrison. The shine of the mirror signals its role and the adjunct role of the leather sheath in protecting the polish integral to its function. The instructions to soldiers in the pay book and diary provide a window into anticipated activities, surroundings and related dangers; the rhythm of his days can be followed through the diary entries to the end of the narrative at September 26, 1918. But Arthur Morrison never saw the "DEAD" stamp on the cover of his pay book, and he did not cut out his will and send it to his parents. We also step into fragments of the lives of those close to him, who must have thought about these belongings too, who kept all these elements together and who donated them to the Archives intact. The physical actions of revealing the components of Morrison wallet may be as important as their textual and image content in understanding the value of these records to society.⁷⁶

The items in the wallet show us Morrison as an individual – as a brother, son, man, citizen, soldier – as someone who recorded his thoughts and activities in a diary, someone who kept photographs. This assemblage of items is what he valued enough to carry with him through camps and battlefields; these records serve as his minimalist

⁷⁶ "Figuratively speaking, we put ourselves inside the bodies of the individuals who made or used these objects; we see with their eyes and touch with their hands. To identify with people from the past or from other places empathetically through the senses is clearly a different way of engaging them than abstractly through the reading of written words." Jules David Prown, "The Truth of Material Culture: Fact or Fiction?," in *History From Things: Essays on Material Culture*, eds. Steven Lubar and W. David Kingery (Washington and London: Smithsonian Institution Press, 1993), 17.

surviving material identity.⁷⁷ These traces of Arthur Morrison's life also function on a symbolic level. Canada's participation and losses in the First World War have been considered a defining moment in the nation's identity.⁷⁸ As the last few living veterans pass away, their wartime records become relics. Historian David Lowenthal has observed: "Relics saved enhance our sense of history, link us with our own and other people's pasts, and shed glory on nations, neighbourhoods, and individuals.... To halt demolition and stave off erosion approaches a precious permanence, a virtual immortality that defies the tooth of time."⁷⁹

Re-conceptualizing Records in the Digital Era

Until the last two decades of the twentieth century, traditional archival appraisal, arrangement, description and preservation practices largely focused on the subject content of records, their form or medium, and their single-creator provenance. Archives management practices, based in tangible paper-based systems, have required fundamental re-thinking in the electronic age.⁸⁰ Archives have customarily preserved the integrity of the fonds of each creator by physically arranging them on shelves in these groupings

⁷⁷ Archivist Catharine Hobbs suggests that the narrative value of personal records surpasses evidential and informational value and calls upon archivists to "think more of an archives of character than of achievement, more of documenting our complex inner humanity than our surface activities." Catherine Hobbs, "The Character of Personal Archives: Reflections of the Value of Records of Individuals," *Archivaria* 52 (Fall 2001): 135.

⁷⁸ For a discussion of the construction of memories of the First World War, see Jonathan Vance, *Death So Noble: Memory, Meaning, and the First World War* (Vancouver: UBC Press, 1997).

⁷⁹ David Lowenthal, *The Past is a Foreign Country* (Cambridge: Cambridge University Press, 1985, reprinted 1990), 389.

⁸⁰ See also 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 (November, 1994): 300-328. For Cook's critique of the practice of separately managing different media from the same creator, see "The Tyranny of the Medium: A Comment on 'Total Archives'," *Archivaria* 9 (Winter 1979): 141-149; and "Media Myopia," *Archivaria* 12 (Summer 1981): 146-157.

where possible, and by describing this arrangement in archival finding aids. Physically manifested expressions have been collected as archival records, and the bulk of archival holdings are paper-based, and written. Early definitions of archival records and acquisition strategies often specify particular media and genres of records as having archival qualities.⁸¹ So entrenched was this archival mental model, that “non-textual” records (such as those manifested as images or sound) are often grouped together as “special” media, and treated as exceptional.⁸² Nevertheless, while material records originate and persist in a single physical form (notwithstanding the often substantive physical changes they may undergo during their existence), electronic files, both those digitized from analogue sources and those “born-digital,” can only manifest themselves as representations assembled through the encoded interactions of hardware, software and computer operational systems. Electronic records can also include almost any and every kind of medium or genre of records. The steady advance of electronic record-making and recordkeeping has therefore catalyzed the theoretical shift away from subject-based and media-based analyses to appraisal based on functional context.

In “Archival Science and Postmodernism: New Formulations for Old Concepts,”

Terry Cook proposes that in order to be relevant and effective in the postmodern and

⁸¹ For instance, specific forms of records are listed in the definitions of “record” and “public records” in the 1987 revisions to both the *National Archives of Canada Act* and the *Legislative Library Act* (which covered the Provincial Archives of Manitoba), although the newest legislation for these archives do not list forms of records.

⁸² These records are also often called “media” records, suggesting that textual records are not equally manifested as a physical medium, or that their use by the modern mass communications industry is inherently more significant than the use of print, song or performance as mass communication media at other times or in other places. For a discussion of the negative effects of media-based segregation, see for instance Joan Schwartz, “Coming to Terms with Photographs,” Jim Burant, “Ephemera, Archives, and Another View of History,” *Archivaria* 40 (Fall 1995): 189-198; and Lisa Klopfer, “Oral History and Archives in the New South Africa: Methodological Issues,” *Archivaria* 52 (Fall 2001): 100-125.

electronic age, archivists must make a paradigm shift “away from viewing records as static physical objects, and toward understanding them as dynamic virtual concepts.”⁸³

Cook concludes by outlining how archival science might be affected by this paradigm shift. The conception of a record, for instance, “changes from being a physical object to becoming a *conceptual data ‘object,’ controlled by metadata, that virtually combines content, context, and structure to provide evidence* of some creator activity or function.”⁸⁴ The ideas indicated in italics are discussed below in relation to the materiality of records.

If Cook’s reconceptualization of records is extended to consider all the ways in which records fulfil their functions as culturally and socially conceived and constructed communication agents, it should also include all the visual, material, and other sensory clues embedded in the record. Therefore, a clear archival warrant exists for embracing the significance of records’ materiality and for calling for the preservation of all aspects of records which provide understanding of their functional context, and of the dynamic on-going changes which they have experienced over time. The perception of a record is the critical factor: if a record is understood not as a random and passive carrier of information, but as material culture (or as material evidence), then a record is inherently a conceptual data object, whether material or immaterial.

A record differs from data, or information, because it is a *combination* of its content (words, numbers, images), context (functional linkages to an event or transaction, creators, users, and related records) and structure (form, presentation, appearance,

⁸³ Terry Cook, “Archival Science and Postmodernism: New Formulations for Old Concepts,” *Archival Science* 1 (2001): 4.

⁸⁴ *Ibid.*, 22. Emphasis mine.

design).⁸⁵ While these requirements have been developed for use in identification of records in an electronic context,⁸⁶ they can also be used to assess the “record-ness” of physically manifested records. Physically manifested content in a letter, for instance, would include all the material components present (e.g. paper, inks, fasteners).

Physically manifested structure is the way these materials have been assembled (e.g. the inscription or printing of ink onto the paper, and stapling together of pages). Physically manifested context is the functions and meanings which can be drawn from the physical condition, proximities and interrelationships of the physical content and structure (e.g. recognition that a pair of holes in the upper left-hand corner of a page of a letter may suggest that something had been stapled to it in the past).

Example: Opening Out a Soldier’s Wallet 6 – Material Content, Context and Structure

Arthur Morrison’s wallet itself is physical content (the actual materials present: e.g. leather, lining textile and thread), which have been assembled into the physical structure of a wallet – a conceptual construct implying a storage and organization device

⁸⁵ These definitions are based on Terry Cook, “The Impact of David Bearman on Modern Archival Thinking: An Essay of Personal Reflection and Critique,” *Archives and Museum Informatics* 11 (1997): 24, and were first described in Bearman, *Electronic Evidence*, 148-9. While appearance or presentation/rendering may be considered a component of “structure,” others have argued that these should be considered as separate characteristics of records; see for instance Jim Suderman, “Context, Structure and Content: New Criteria for Appraising Electronic Records,” 2001, 5, available through <http://www.mybestdocs.com> (accessed 3 December 2005). Behaviour (interactive characteristics) has additionally been identified as a fifth characteristic of databases in Digital Preservation Testbed, *From Digital Volatility to Digital Permanence: Preserving Databases* (version 1.0) (The Hague: Digital Preservation Testbed, 2003): 8-9; also available at <http://www.digitalduurzaamheid.nl> (accessed 10 July 2007). While some may argue these are only subdivisions of “structure,” those who argue for their distinction imply a higher level of sensitivity to the interactions between records and users, and to the construction of records as communications, which are not adequately addressed in the existing definition.

⁸⁶ A number of large research projects have examined, and continue to examine, requirements for record keeping systems since the development of the University of Pittsburgh’s *Functional Requirements for Recordkeeping Systems*. The 1994 version of these requirements appears as an appendix in Bearman, *Electronic Evidence*.

for money and documents. The wallet currently functions as a recordkeeping system for the items it contains, providing the physical framework for the inter-relationships of these items. The relationship between the leather (content) sheath for the mirror, and the high polish (structure) for the steel (content) of the mirror provides the information required to recognize its signalling function (context); the hole at one end (structure) allows the mirror to be hung from a cord or nail (context), and provides a better grip when removing it from the sheath (context). The soft covers, cheap paper and stapled (content) forms of the diary and pay book reflect their wartime mass production origins. Paper (content) is sewn into book form to keep the pages aligned and together in a particular order (structure); the covers (structure) protect the paper, and the flap extension (structure) on the pay book keeps the booklet closed and protects the fore-edges of the pages from the infiltration of damp and dirt in the trenches (context). The Soldier's Diary is slightly less utilitarian with its silver titling and coloured printing (content): it is a small personal luxury in stark war conditions (context). The wood and indelible lead (content) pencil (structure), is stored within the diary's cover construction, and appears to be the tool (context) used for writing some of the entries (both intellectual and physical content). The silver-gelatine images on paper (content) as photographs (structure) have been annotated with ink (content) inscriptions or stamps denoting a post-card layout (structure). Where, when, and why the photographs were made is not identified; they rely entirely on their physical relationship to the wallet for their context. The physical content and structure of all these items contribute contextual information about Morrison's personal circumstances.

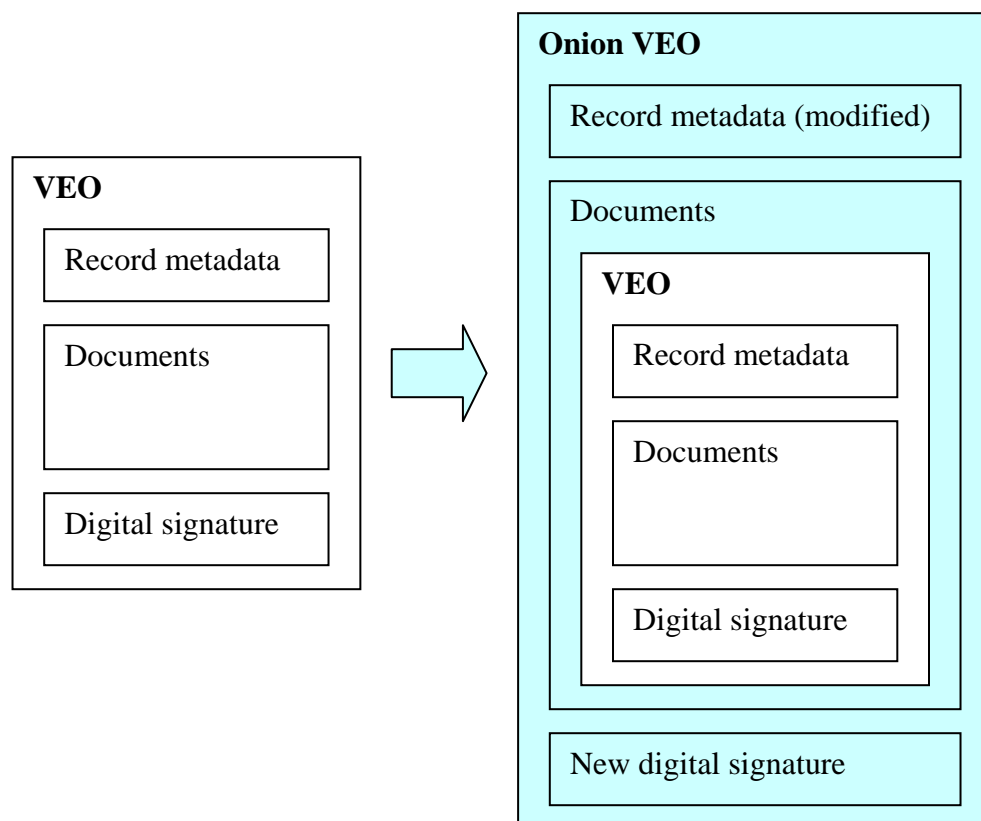
Because discrete views of electronic records are manifested from data stores onto monitor screens only as required and are not stored in the viewed form, preservation of both the functional context of their creation, and the structured rendering of their format and appearance, is critical to making the data content both intelligible and meaningful. Preservation strategies for electronic records, therefore, include the development of metadata so that individual records can persist beyond the obsolescence of software and hardware as “metadata encapsulated objects.” This approach recognizes that records require both data (the information or content) and metadata (documentation of the context and structure that makes the information meaningful). Both data and metadata must, therefore, be preserved to keep the records intelligible over time. In an electronic record, the data content of an electronic file and the metadata regarding, for instance, how its structure should appear on a screen (layout, formatting, fonts, colours, and so on), are clearly separate. The record and its context/functionality is also the subject of the metadata since the metadata enables the data to perform its function; without metadata the data is without context, and therefore incapable of providing reliable evidence of who created the records, when, where, how, in performing what functions or activities in connection with what other records, and so on.

The Public Records Office for the Australian state of Victoria has developed the Victorian Electronic Records Strategy (VERS) for creating and maintaining reliable electronic records through time.⁸⁷ Individual records are held or supported in accordance

⁸⁷ The information in this section is derived from Public Records Office Victoria (PROV), *Victorian Electronic Records Strategy*, <http://www.prov.vic.au/vers/vers/default.htm>, (accessed 20 October 2006). Standards for documenting government and business functions and transactions have been introduced at national and territorial levels in Australia, and in New Zealand, and these have informed development of the International Standards Organization's

with Specification 3, VERS Standard Electronic Records Format.⁸⁸ The record's content and its related metadata are saved, or “encapsulated,” together in onion-like layers and the integrity of these layers – the entire “object” or record – is protected by a digital signature. Each of these record units is called a VERS Encapsulated Object (VEO), and VEO's are created for both the documents and folders. This conceptual model appears as Figure 2.1.

Figure 2.1 Structure of VERS Encapsulated Objects⁸⁹



Standard on Records Management, ISO 15489 (October 2001), based on the Australian Standard AS 4390-1996: Records Management. The PROV is one of the leaders in these initiatives.

⁸⁸ There are separate specifications for the VERS Metadata Scheme, and VERS Long-term Preservation Formats for the content portion of the record.

⁸⁹ Diagram based on Public Records Office Victoria, *Victorian Electronic Records Strategy*, “Archives Advice 12: VERS Standard Electronic Record Format,”

http://www.prov.vic.au/vers/standard/advice_12/3-5.htm (accessed 20 November 2008). Used with permission of the Public Records Office Victoria.

Because the record and the context within which the record is used are continually changing, their metadata also continually changes. This model requires a new shell, or layer, of metadata to be created each time a change is made to the content of the document or to the relationship between the documents or the folders. The term “object” is used to encompass all kinds of record content, including e-mail, memoranda, brochures, photographs, audio files and video. Keeping the digital objects self-contained, with the metadata bound directly to the content, minimizes the amount of external information technology necessary to correctly re-construct these linkages, especially since the metadata code is written in non-proprietary, or “open,” computer languages. To avoid problems with the long-term viability of proprietary software, the object content is saved in non-proprietary formats, such as Portable Document Format (PDF), while EXtensible Markup Language (XML) is generally the preferred format for the VEO’s.

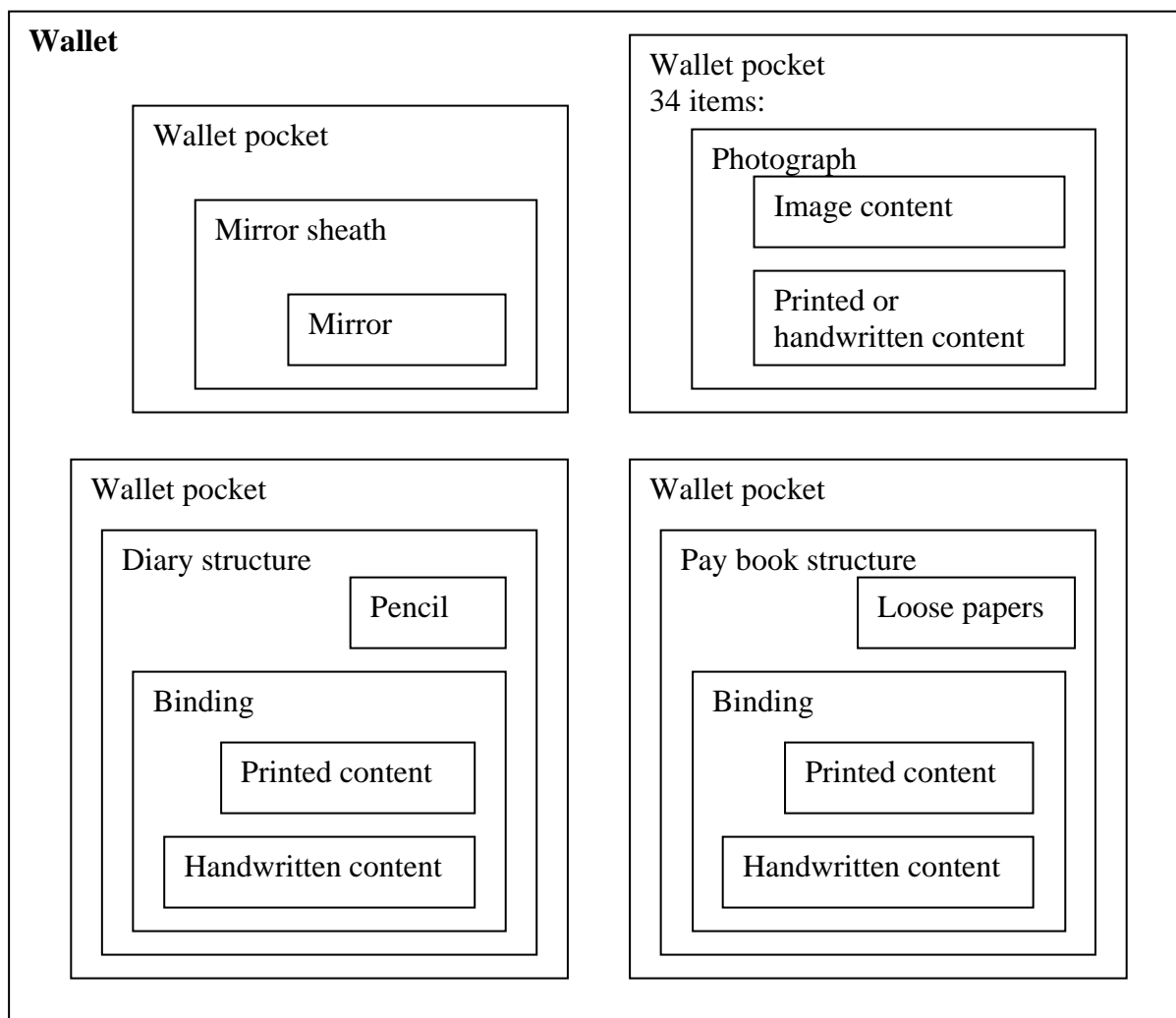
As data about data, metadata can be identified for any purpose, and different sets of metadata can be customised to serve different purposes. Where a high level of control is required, metadata sets will be standardized, as in the case of the VEO’s. For electronic records, the most common types of metadata are administrative, descriptive, preservation, technical and use.⁹⁰

Example: Opening Out a Soldier’s Wallet 7 - Materially Manifested Metadata

As discussed above, the materiality of physical records includes their physically manifested content, context and structure. The wallet components could be

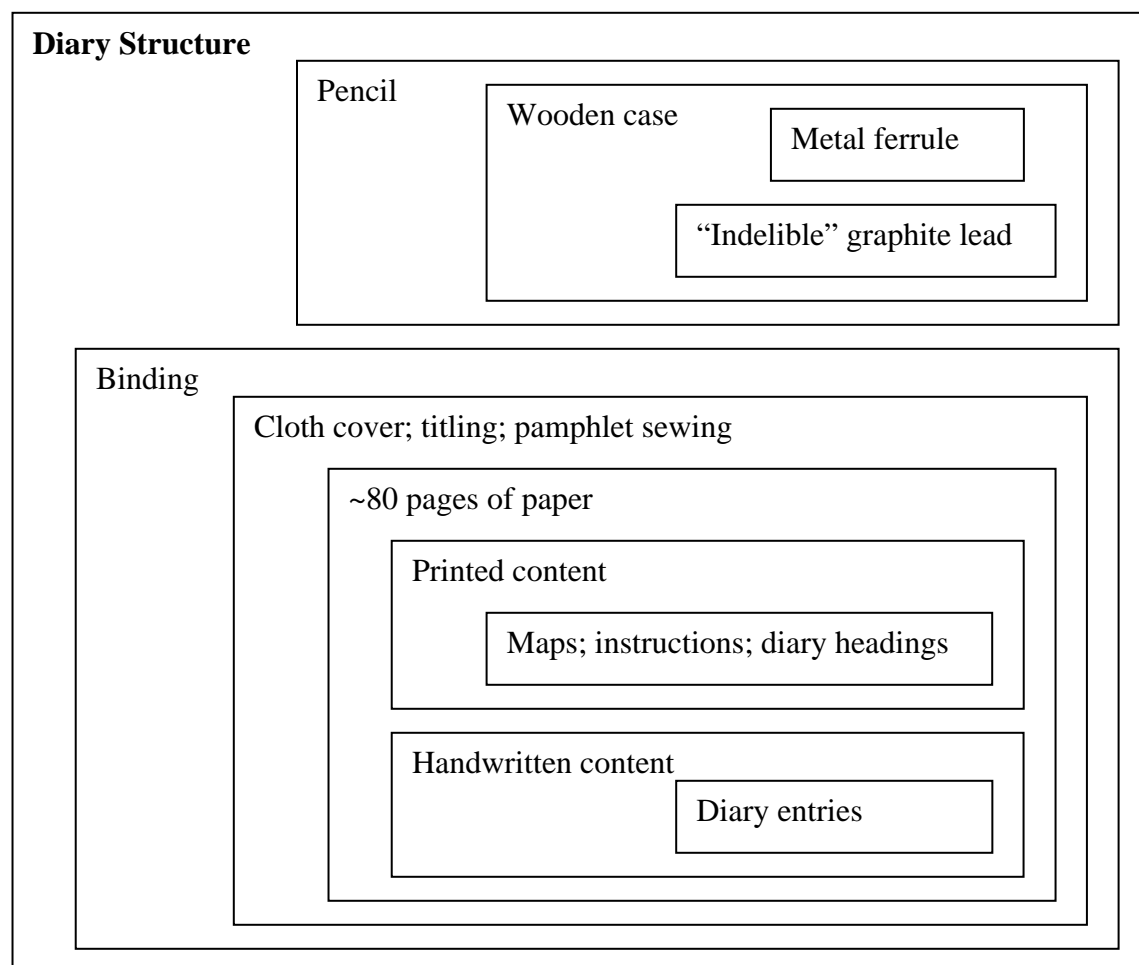
⁹⁰ Anne J. Gilliland Swetland, “Setting the Stage,” in *Introduction to Metadata: Pathways to Digital Information*, ed. Murtha Baca, available at http://www.getty.edu/research/conducting_research/standards/intrometadata/setting.html (accessed 3 April 2009).

deconstructed to highlight different structures, relationships and events in the stewardship or use histories of the components, either individually or as a group. Each such deconstruction of the physical evidence reveals the another way in which material culture is culturally and socially constructed. Figures 2.2-2.4 represent different material metadata. Figure 2.2a is a conceptual model showing the physical relationships between the components of the wallet, with the diary, pay book, photographs and mirror located within the pockets of the wallet, as well as the relationship between the data/content and metadata within each component. These relationships can be understood as structural metadata.

Figure 2.2a Structural Relationships within Morrison's Wallet

Increasingly higher levels of detail can be brought to bear on the relationships within individual components. As an example, Figure 2.2b focuses on the structure of the diary.

Figure 2.2b Structural Relationships within Morrison's Diary



It is possible to bring the physical analysis of the diary down to the origins of the paper fibres or to ink chemistry, but equally possible to place the diary within increasingly larger frameworks. Although Morrison's wallet has been discussed in this thesis as a single record, and the mirror, photographs, pay book and diary as components of that record, the wallet has never stood alone, but has always been – and continues to be – part of a larger physical as well as social-cultural context. Figure 2.3

indicates the functional origins of the individual components which make up the wallet and its contents, drawing attention to their interrelationships at the boundary between the personal and institutional.

Figure 2.3 Functional Relationships within Morrison's Wallet

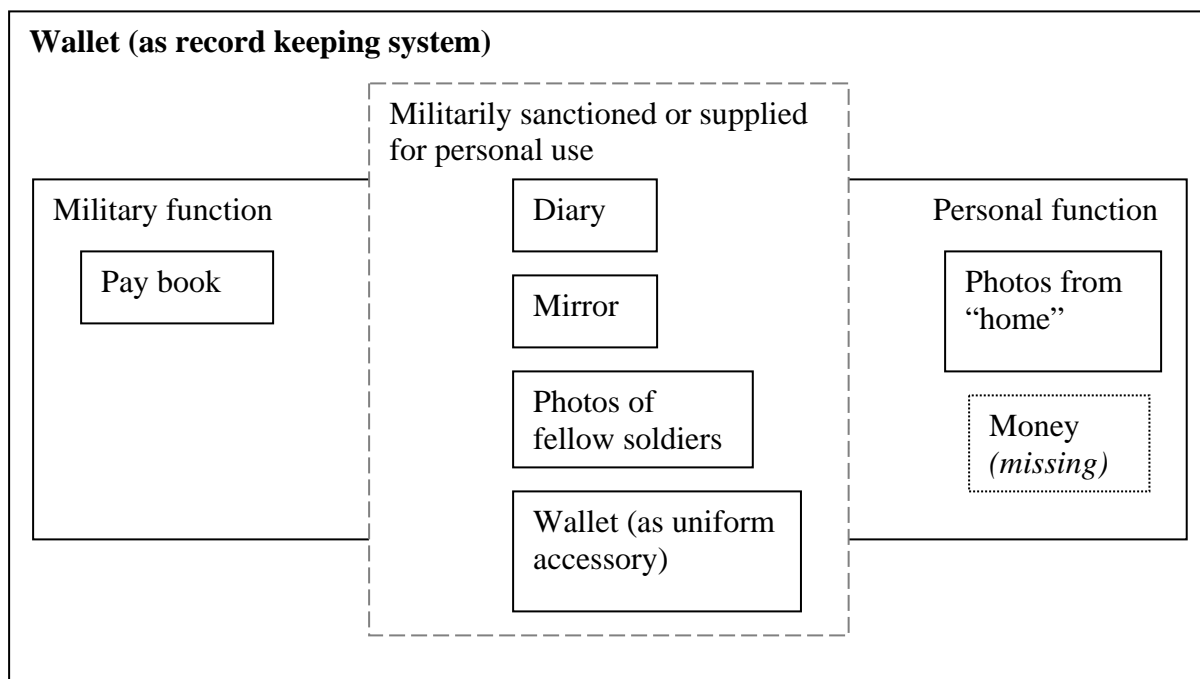
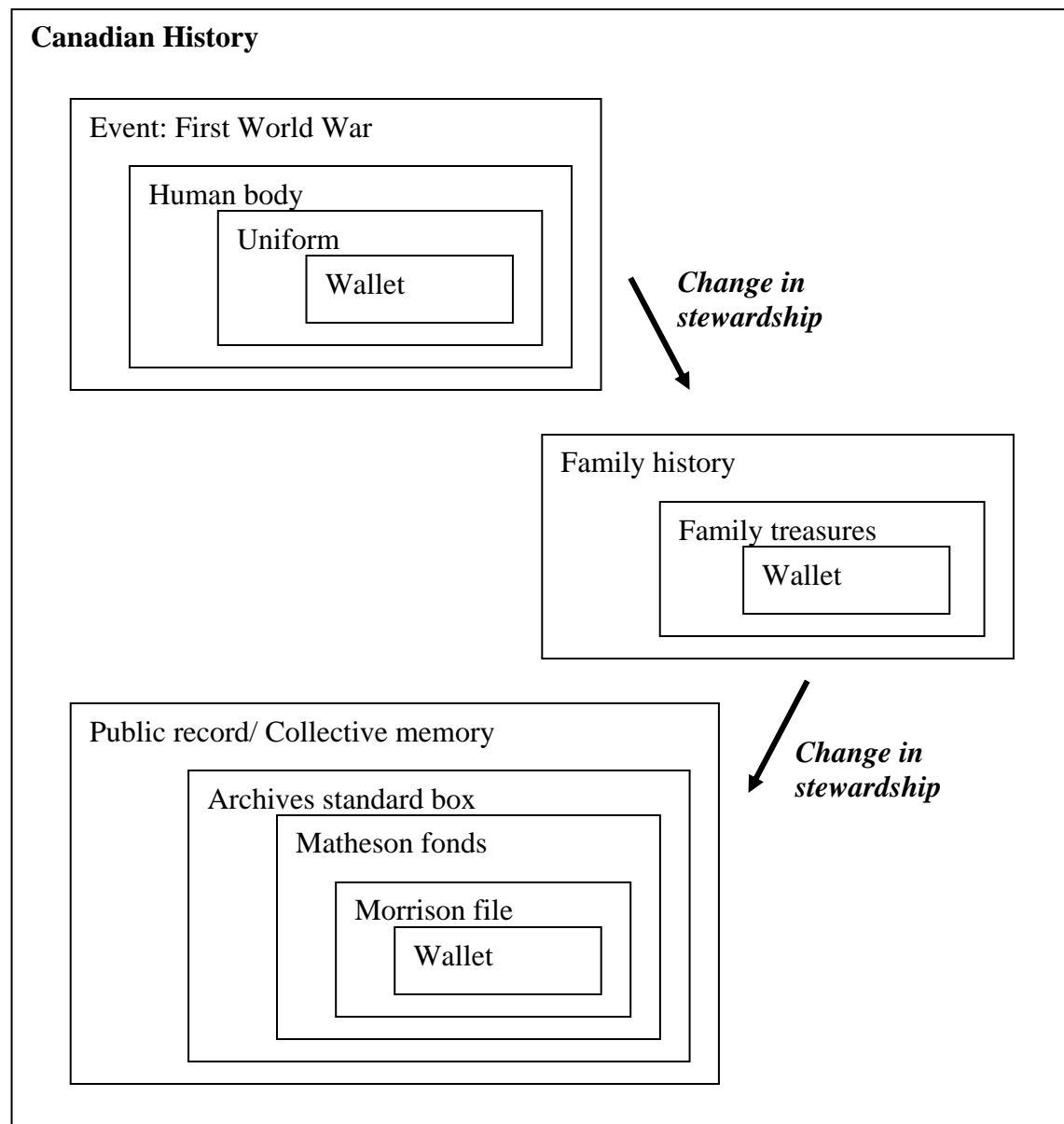


Figure 2.4 shows how the wallet has been part of several socio-cultural systems over time.

Figure 2.4 Temporal Shifts in Significance and Physical Context for Morrison's Wallet



The depth and breadth of metadata related to a material or immaterial "object" appear essentially limitless. Identification of critical metadata for preservation would be a

reasonable outcome of the archival appraisal process, and fits neatly with the broad functional analysis required by the macroappraisal theory and methodology.⁹¹

Materiality, Immateriality, and Electronic Records

Material culture theory arises from circumstances in which objects are a primary, and sometimes the only, information source regarding a society. It is not the physical things that are individually socially valuable, but the interpretation of the things and their interrelationships as evidence of social processes.⁹² Since records are a conceptual expression of their cultural and societal contexts, their modes of expression – whether oral, aural, performance, visual, or electronic, and whether materially manifested or not – are all significant in their own ways. Therefore, the preservation and interpretation of immaterial, or non-tangible, cultural expressions and how they function within their society are equally important to understanding a society; the choice to carve a message in stone, or to relay it over the telephone, are equally significant to the interpretation of that message.

In “Archives and the Intangible,”⁹³ Keli Rylance discusses the conceptual implications of the 1998 United Nations Educational, Scientific, and Cultural

⁹¹ The Documentation Strategy system of appraisal also includes functional analysis, as well as cooperative de-centralized acquisition by institutions (e.g. archives, museums, cultural centers) with different, but complementary interests in a particular subject to be documented. For an introduction to this approach, see Helen Willa Samuels, “Who Controls the Past,” *American Archivist* 49 (Spring 1986): 109-124; as well as Helen Willa Samuels, *Varsity Letters: Documenting Modern Colleges and Universities*, (Society of American Archivists and Scarecrow Press, Inc: Metuchen, NJ and London, 1992).

⁹² For this reason, an artifact looted from an archaeological site has been stripped of the context that makes it valuable as material culture. Decontextualized artifacts may actually increase in monetary value if they are “freed” from unpopular or unfashionable cultural associations, or from the possibility of competing cultural claims.

⁹³ Keli Rylance, “Archives and the Intangible,” *Archivaria* 62 (Spring 2006): 103-120.

Organization (UNESCO) *Proclamation of Masterpieces of the Oral and Intangible Heritage of Humanity* for archives, since in the past UNESCO has dealt almost exclusively with records as tangible objects and systematically excluded intangible cultural expression; the very concept of “records” suggest something recorded, and consequently fixed in time and space. Rylance proposes that while the goals of the *Proclamation* are shared by archives and support the mission of retaining societal value of records, archives are unprepared for this broader mission because their traditional “Medium-based taxonomy ... [is] inherently reductivist, often severing the object from the meaning(s) that drove its creation, that which its creator(s) envisioned for it when it was brought together with other objects.”⁹⁴ Rylance suggests archives look to the fields of anthropology and contemporary art for strategies for preserving and communicating the significance of intangible cultural expression.⁹⁵

While the material nature of tangible records appears self-evident (even if more complex than most archivists and users acknowledge), the material or immaterial nature of electronic records is less so. Every new technology carries within it something of the technologies it is meant to replace.⁹⁶ This is evident in how the word-processing software interface design references paper-based precursors through the use of terms such

⁹⁴ Ibid., 107.

⁹⁵ For a description of how some anthropological perspectives could benefit the discipline of archives, see Elisabeth Kaplan, “‘Many Paths to Partial Truths’: Archives, Anthropology, and the Power of Representation,” *Archival Science* 2 (2002): 209-220. Two examples of projects supporting the creation and preservation of art in ephemeral media are the Variable Media Network, (see <http://www.variablemedia.net/>, accessed 20 August 2007), and the Tate Modern Gallery’s Matters in Media Arts Research Projects (see <http://www.tate.org.uk/research/tateresearch/majorprojects/mediamatters/>, accessed 14 October 2008.)

⁹⁶ “When new media emerge in a society, their place is at first ill defined, and their ultimate meanings or functions are shaped over time by that society’s existing habits of media use (which, of course, derive from the experience with other, established media), by shared desires for new uses, and by the slow process of adaptation between the two.” Geoffrey B. Pingree and Lisa Gitelman, “Introduction: What’s New About New Media?,” in *New Media, 1740-1915*, xii.

as “file,” and “document,” as well as picture “icons” such as file folders, scissors, erasers, and garbage cans to make these systems more “user-friendly.”⁹⁷ Electronic records have tangible components: the surface of a monitor or keyboard, speaker, microphone, touch-screens, as well as the storage media, are all visible and tactile. While software code may function primarily to relay commands between machine interfaces, sooner or later the data must still be rendered intelligible to humans. At this point it must be perceptible to human senses, rendered into visual, aural, and even tactile communications.⁹⁸ The conceptual spectrum of materiality can be understood to encompass immateriality, since the material and tangible human brain is always a participant in human communication.

To what extent are these tangible and sensory aspects of the electronic communication relevant to the record? As Terry Cook has summarized: “The archival literature is pretty unanimous: preserve the software capabilities, with rich contextual metadata, across time, and you preserve the record: the physical carrier is ever-changing and thus irrelevant.”⁹⁹ For this reason electronic records are generally considered to be immaterial. But why should the tangible components of this means of cultural expression

⁹⁷ Gary Frost describes how the size and shapes of papyrus, parchment and paper books reflect their technologies and functions, noting “The iPhone, optimized for portability, is proportioned exactly to the half square of the papyrus codex. Likewise it reflects the nomadic and conceptually possessive character of its users.” “The Shape of the Page,” entry for July 14, 2007, available at <http://futureofthebook.com> (accessed 24 July 2008). Eric Ketelaar explores the process and product of writing with a stylus on a Personal Digital Assistant (PDA) screen as a technology of archiving in “Writing on Archiving Machines,” in *Sign Here! Handwriting in the Age of New Media*, eds. Sonja Neef, José van Dijck, and Eric Ketelaar (Amsterdam: Amsterdam University Press, 2006), 183-195.

⁹⁸ Haptic interfaces simulate touching three dimensional objects to enable, for instance, remote medical diagnoses or surgery. See for example the work of the Haptics Laboratory, in the Centre for Intelligent Machines at McGill University at <http://www.cim.mcgill.ca/~haptic/> (accessed 17 October 2008).

⁹⁹ Terry Cook, “Commentary: Materiality and Immateriality: Physical Form and Electronic Records,” unpublished paper presented at the Society of American Archivists conference, Boston, MA, 7 August 2004, 5. In contrast to this mainstream, Cook argues for increased consideration of the “virtual materiality” of electronic records.

be less relevant than those of more completely tangible records? The labels on diskettes used within an office may be in sizes, shapes, colours, or bear text significant to the creators and users of the diskettes. More importantly, information about the availability and use of new or used disks, hard drives or servers may be useful in documenting otherwise unseen aspects of systems administration in the organization. The ease with which electronic data moves between physical carriers is part of the technological system in which those carriers participate – the carrier is itself, thus, physically manifested contextual metadata. The degree of significance of a physical carrier (or other retrieval hardware) requires archival appraisal to determine whether it merits continued preservation as physical metadata (in its original form), or the extent to which it should be replaced by virtual metadata documenting its existence and disposal.

Material records are often perceived to be fixed, but in “Are Records Ever Actual,” Sue McKemmish suggests that “Both the relationships amongst documents in a recordkeeping system or accumulation of records, and between records and their contexts of creation and use, are multiple and dynamic The record is always in a process of becoming.”¹⁰⁰ While the mutability of electronic data is obvious, McKemmish credits Chris Hurley with the observation that the physical linkages between items in paper-based systems physically manifest a similar lack of fixity in spite of the apparent material

¹⁰⁰ Sue McKemmish, “Are Records Ever Actual?,” in *The Records Continuum: Ian McLean and Australian Archives First Fifty Years*, eds. Sue McKemmish and Michael Piggott (Clayton, Vic.: Ancora Press in association with Australian Archives, 1994), 200. Also available at <http://www.sims.monash.edu.au/research/rcrg/publications/smcktrc.html>, (accessed 23 March 2006). This notion of inevitable and continual change in records has most recently been discussed in Heather MacNeil, “Archivalterity: Rethinking Original Order,” *Archivaria* 66 (Fall 2008): 1-24.

nature of the record.¹⁰¹ Lack of fixity is not an obstacle to record-ness, however, since it is not the physical thing, but its context that is critical to documenting the functions and activities of records creators. As a participant in the transaction which created it, the record-object is an evidential trace of the action, and a site for interpretation of the action. David Bearman articulated this as seeing the records as dynamic transactions rather than as static outputs.¹⁰²

Writers about electronic communication have made similar observations about electronic records as part of on-going cultural and social processes, not something completely new. In *Scrolling Forward: Making Sense of Documents in the Digital Age*,¹⁰³ David Levy suggests that all documents are essentially “talking things” which continue to “speak thought text and sound, through still and moving images – the same basic communicative repertoire we had before computers appeared on the scene.” He suggests the new technology for storing and retrieving these communications “is a red herring. We are simply learning to throw our voice into new materials.”¹⁰⁴ Levy claims the relative instability or fluidity of digital material has been overstated since “paper documents, and indeed all documents – are static *and* changing, fixed *and* fluid. It also fails to see the importance of fixity in the digital world. There is a reason why text and

¹⁰¹ Ibid., 199. Examples of conceptual mobility of paper documents include physical movement of documents from one file to another, or stapling documents into different groups which then are considered a single document or file.

¹⁰² Bearman, *Electronic Evidence*, 284. For a consideration of perceptions of original states in moving images, see Steven Ricci, “Saving, Rebuilding, or Making: Archival (Re)Constructions in Moving Image Archives,” *American Archivist* 71 (Fall/Winter 2008): 433-455.

¹⁰³ David M. Levy, *Scrolling Forward: Making Sense of Documents in the Digital Age* (New York: Arcade Publishing, 2001).

¹⁰⁴ Ibid., 34-35. For a discussion of the relationships between fixity and fluidity in the digital world and Harold Innis’ notions of “time binding” and “space binding” media see John Seely Brown and Paul Duguid, *The Social Life of Information* (Boston: Harvard Business School Press, 2000), 197-201.

graphics editors have a Save button, after all.”¹⁰⁵ Levy argues that the “ability to keep talk fixed, to guarantee its repeatability, is a basic building block of human culture. ... It would be strange indeed if, in making talking things out of new materials, we were somehow to omit this crucial ingredient Most of the digital forms we are now creating and using already possess this property, to whatever limited degree, and it is crucial to their success.”¹⁰⁶

Materiality and Archival Theory

Archival theory shapes archival collections directly or indirectly. While Sir Hilary Jenkinson described the need to preserve the integrity of records’ materiality in order to preserve their evidential value, T.R. Schellenberg defined evidence more narrowly, emphasizing the evidential nature of the content of records, and arguing that archival records should also have informational value based on their content. A limited number of physical “qualities and characteristics” have been described as having intrinsic value in particular contexts, meriting retention in original form after a representation of the record is made in a format with greater storage capacity or longevity, such as microfilm. Arthur Morrison’s wallet would not be appraised as having archival value within these criteria.

Over the last thirty years, renewed and expanded visions of provenance as the functional context of records’ creation have recognized records as both products of socio-cultural processes and agents in socio-cultural processes of communication. Electronic records have challenged conceptions of records as tangible and fixed, and shifted

¹⁰⁵ Levy, *ibid.*, 36. Emphasis in original.

¹⁰⁶ *Ibid.*, 37-38.

attention away from their information content and back to their context of creation, and to their value as evidence of human activities, ideas, feelings and interactions. The materiality (and immateriality) of records contributes to their value as archival records because their materiality arises directly from their functional context of creation. Concepts developed for electronic records can be applied to “traditional” records to see and understand them in new ways: material records also have material content, context and structure; this material metadata is critical to maximizing understanding of material data. Morrison’s wallet can now be seen as evidence, not only of a particular individual, but of the whole dynamic contextual milieu within which Morrison, government agencies, and his family members acted and continue to act. As a relatively intact embodiment of this milieu, the wallet has archival value, and the materiality of Morrison’s wallet is integral to this value.¹⁰⁷

¹⁰⁷ While archival records may also have significant artistic, monetary, sentimental, and other kinds of value, this thesis considers only aspects of value explicitly described as archival .

CHAPTER THREE

MATERIALITY AND ARCHIVAL PRACTICE

Materiality, Preservation, Access, and the Management of Archives

In the Introduction to the published papers from the First International Conference on the History of Records and Archives, the conference organizers indicated that material history and material culture are an “integral part of records history that had received scant attention in the past” and that

the fruits of this research should be unapologetically situated to the core of archival interest... Materiality, machines, people, presumptions, and multiple layers of culture are part of the essential dimensions of any record – the intellectual challenge is to seek out and identify these intersections and to explore them as part of the process of archival management from appraisal to description to reference.¹

While Chapter Two demonstrated how archival theory has an increasing place for materiality and how materiality has significant dimensions to contribute to archival theory, this chapter looks at how materiality, and its potential contributions, has been considered in several areas of archival practice: acquisition; physical arrangement or processing; description; surrogate representation, access and outreach; and preservation.

Archival records are those appraised as worthy to be “preserved because of the enduring value contained in the information they contain or as evidence of the functions

¹ Barbara Craig, Philip B. Eppard and Heather McNeil, “Exploring Perspectives and Themes for Histories of Records and Archives.” The First International Conference on the History of Records and Archives, *Archivaria* 60 (Fall, 2005), 7.

and responsibilities of their creator.”² Logically then, archives have two equal and reciprocating primary goals: the preservation of this archival value (however defined by individual archives) for continued access, and providing continued access to the archival value preserved in records.³ Archival practice should, therefore, support both the preservation of the archival value of records and access to those aspects of records which contribute to their archival value. Given that the nature and locus of the archival value of records have shifted away from information and evidence *in* records to understanding records *as evidence of* their functional context of creation, if an archives is following the contextualist approach, the aspects of records which contribute to their archival value should include their materiality as physical evidence of their functional context(s) of creation.

The problem of value identification by archives underpins the function of appraisal, as discussed in the previous chapter. Appraisal determines what will be in an archives, and, as asserted above, materiality should be part of the value-formation appraisal process. This chapter turns to consider the role of materiality in the archival functions which follow appraisal – after certain records have been identified as “archival.”

² Richard Pearce-Moses, *Glossary of Archival and Records Terminology*, Society of American Archivists, 2005, available at http://www.archivists.org/glossary/term_details.asp?DefinitionKey=292 (accessed 4 August 2007).

³ Archival functions are usually separated into variations of appraisal, acquisition, arrangement/processing and description, preservation, reference access, outreach programming, and administration. Access and preservation can therefore be considered both as goals and as separable sub-activities within archives. This conflation of goals (what, why) and strategies (how) is both confusing and problematic since it implies discrete activities where overlap is inevitable.

Acquisition

Since Chapter Two discussed archival appraisal theory – why records have value – as well as some appraisal strategies, this section will consider the limitations of what is acquired based on that appraisal process, and then what is documented about acquisitions and acquisition decisions as they relate to archival value. Paul Conway indicates that “In the early years of modern archival agencies ... preservation simply meant collecting. The sheer act of pulling a collection of manuscripts from a barn, a basement, or a parking garage and placing it intact in a dry building with locks on the door fulfilled the fundamental preservation mandate of the institution.”⁴ This observation underscores the idea of preservation as acquiring and managing objects – initially material objects, but increasingly virtual objects. Conway’s description suggests indiscriminate collecting, but it is clear that only those things which can fit inside buildings would be collected and therefore considered archival. While designating records as having archival value would seem to be the first and least physically interventive of preservation activities, the practical aspects of managing objects directly influence their acquisition as well as the very definition of archival records, since it defines what is to be considered for preservation in archives and why.⁵

In the heritage preservation field, cultural property is often divided in two categories: movable and immovable. Buildings, or historic sites – such as the battlefields and military camps of Europe where Morrison wrote his diary entries or the

⁴ Paul Conway, *Handbook for Digital Projects: A Management Tool for Preservation and Access*, Northeast Document Conservation Centre, 2000, 43; available at <http://www.nedcc.org/digital/> (accessed 19 January 2006).

⁵ Archivist Sarah Tyacke discusses the role of archivists as gatekeepers for the historical record, judging what is to be preserved for the future, in “Archives in a Wider World: The Culture and Politics of Archives,” *Archivaria* 52 (Fall 2001): 17-18.

fur trade posts where the HBC's employees documented their transactions – are immovable and therefore impossible to collect and store off-site. While these physical sites are obviously part of the dynamic contextual milieu of records creation, the material and virtual objects that are considered archival records are almost always limited to movable cultural property, and the records of a single creator are defined in increasingly broad terms, in an upwards hierarchy, as a document, file, series, or fonds.⁶ The records held by archives often include the creator's file folders (unless they are replaced by "archival quality" file folders), but not the filing cabinet; the slide mount but not the slide tray or carousel; the folded letters, but rarely the envelopes, and not the hair ribbon or leather strap which held them together in a bundle; the curved cardboard mounts of stereoscope photographs but not the stereoscope.⁷

⁶ While a fonds is the whole of the *records* created by the creator, many archivists have questioned the accuracy or relevance of this concept. For a list of others who have considered this topic and a further advancement of this critique, see Laura Millar, "The Death of the Fonds and the Resurrection of Provenance: Archival Context in Space and Time," *Archivaria* 53 (Spring 2002): 1-15.

⁷ Archives often welcome donations of equipment for playing back moving and sound records, but would not consider this equipment to be part of the accession of records. Stereoscopes, magic lanterns, and slide viewers are also varieties of "playback" technologies, but are rarely collected since the subjects of the stereoscope cards and slides are visible with the unaided eye.

Figure 3.1 Separating Records from Non-Records in their Recordkeeping Context

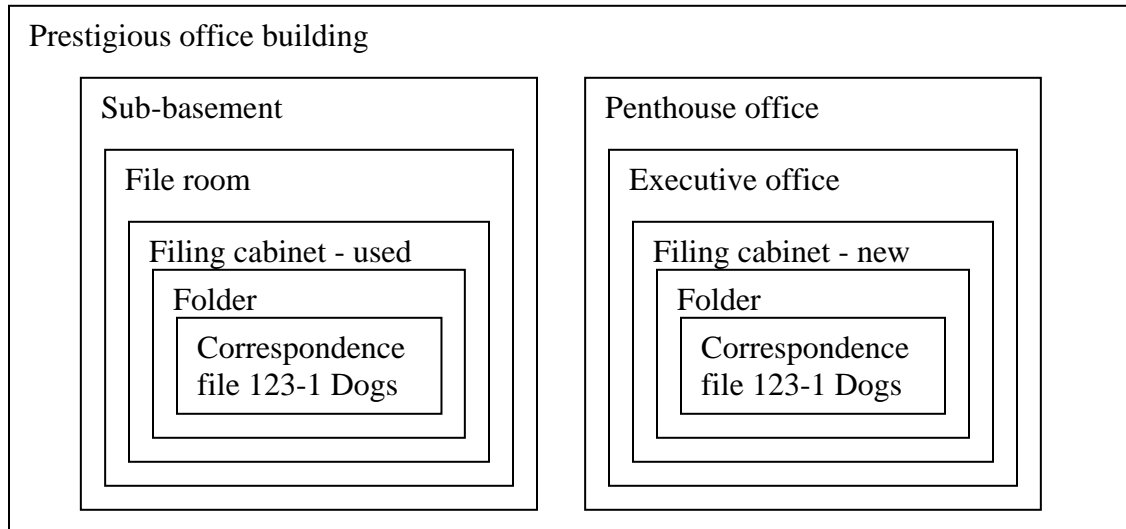


Figure 3.1 is a visual representation of two units of business “correspondence” which have the same physical recordkeeping structures and furnishings, and even the same file title and number, but their differing storage circumstances within the same building may offer significant contextual evidence of variable or shifting status of particular records within the organization, and thus may explain quite different content in very similar-appearing files.⁸

These determinations of where records begin and end as records (having content, context *and* structure) rather than as discrete documentary objects, have seldom been discussed in the archival literature, and their implications for the preservation of recordness or of archival value have not been examined. For instance, a manual of archival management directs that “Bound records that are too large to fit in the deepest drawers, or with deteriorated bindings, can be rebound in post-binding format. ... The record is not

⁸ Decorative elements on bindings, ornate wooden filing cabinets, and whether a record keeping system was visible to clients, may indicate the value and meaning of the records to the organization and their intended role in communicating with clients: for instance, instilling confidence through visible signs of order, neatness, economy and prosperity.

altered at any time during this process....”⁹ This passage appears without any suggestion that the archivist should assess and record the information the binding might provide about the creators and custodians of the records, or document the materials, labels and annotations (through text or images) prior to discarding it, or consider the binding as part of the metadata of the textual information within. For the author of the passage, the record is not altered because he has not considered the binding as part of the record but perhaps only as a protective device, now inconveniently sized and therefore extraneous as well as irrelevant.

In contrast to this “traditional” approach, Geoffrey Yeo has considered the nature of record-ness in his exploration of prototype records and boundary objects. Yeo suggests that prototype theory is a useful way of considering how archivists categorize objects as records or “not-records,” noting that mental models (prototypes) of records are primarily textual and paper-based, although electronic documents are increasingly perceived to fit the prototype of records.¹⁰ As an example of the effects of this categorization, Yeo indicates that audiovisual records’ “distance from the record prototype is reflected in records management textbooks, which often provide introductory statements emphasizing that records can employ ‘any media’ but largely ignore audiovisual records in later chapters, where the systems expounded almost always assume that records are textual.”¹¹ Yeo cautions that as archives strive to be more inclusive of “underprivileged groups and noninstitutional communities,” they will need to

⁹ John A. Dyer, “Managing Cartographic and Architectural Records,” in *Managing Archives and Archival Institution*, ed. James Gregory Bradsher (London: Mansell Publishing, 1988; Chicago: University of Chicago Press, 1991), 101.

¹⁰ Geoffrey Yeo, “Concepts of Record (2): Prototypes and Boundary Objects,” *American Archivist* 71 (Spring/Summer, 2008): 122.

¹¹ *Ibid.*, 123.

understand and capture “objects on the periphery of the universe of records.”¹²

Additionally, some of these objects may be boundary objects – simultaneously of value and interest to multiple communities – as in the example of a twentieth-century government policy file which in a museum context “would also be an example of ... the ‘material culture’ of that century,” albeit closer to the prototype of records than of cultural artifact.¹³

If we accept that the line between records and non-records is contingent, we can examine some of the factors in decisions regarding what to accept as records. At one end of the acquisition spectrum is the passive acceptance of all the records packed for transfer to the archives by the donor; at the other end are the contextualist efforts to work directly with the donor or transferring office to understand their organizational culture and to enable the archivist to appraise or choose as archival only those records that best reflect the most important activities and programs of that creator. While there are always practical limitations to the scope of a functional analysis, a survey of record storage sites would not likely be considered a priority. Identification of the most concentrated expression of the dynamic contextual milieu of records creation means it is also likely that records storage furnishings will not be acquired by many archives. Nevertheless, there are suggestions for documentation of the contextual evidence destroyed in the process of acquisition. Laura Millar proposes analogies with archaeological provenience or “findspot” to be applied to enhance archival descriptions,¹⁴ and Terry Cook advocates

¹² Ibid., 140.

¹³ Ibid., 132.

¹⁴ Millar, “The Death of the Fonds and the Resurrection of Provenance,” 8-9.

“negative” entries in descriptions of institutional records to indicate what records were not acquired and how that decision was made.¹⁵

Having decided what to acquire, what is to be recorded about an acquisition? Sir Hilary Jenkinson’s *A Manual of Archive Administration* instructs archivists to maintain registers to enable them to provide an “Archives History” including “*where it came from*; ... whether any part of it is known to be *missing*; ... what is the nature and state of its *make-up*.”¹⁶ In *The Management of Archives*, T. R. Schellenberg limits the scope of an accessions register to the source of the material and terms of access.¹⁷ In an 1968 survey of twenty-one archival agencies, Dennis R. Bodem claims that all accession forms “are concerned with providing a record of provenance as well as evidence of professional preservation and organization of a record group before shelving.”¹⁸ Maynard J. Brichford suggests, in *Archives and Manuscripts: Appraisal and Accessioning*, that archivists document their recommendations related to managing the arrangement, description and preservation measures related to an accession, and that accession information be recorded on a form that will act as the permanent record of receipt.¹⁹ In *Selecting and Appraising Archives and Manuscripts*, F. Gerald Ham discusses strategic use of field reports and case files. These case files can include “notes on provenance, content, and organization of the collection: information on whether parts of the collection were donated elsewhere,

¹⁵ Terry Cook, “Fashionable Nonsense of Professional Rebirth: Postmodernism and the Practice of Archives,” *Archivaria* 51 (Spring, 2001): 34.

¹⁶ Hilary Jenkinson, *A Manual of Archive Administration*, new and revised edition (London: Percy Lund, Humphries & Co Ltd, 1937), 133. Emphasis in original.

¹⁷ T.R. Schellenberg, *The Management of Archives* (New York: Columbia University Press, 1965), 200.

¹⁸ Dennis R. Bodem, “The Use of Forms in the Control of Archives at the Accessioning and Processing Level,” *American Archivist* 31 (October 1968): 368.

¹⁹ Maynard J. Brichford, *Archives and Manuscripts: Appraisal and Accessioning*, Basic Manual Series (Chicago: Society of American Archivists, 1977), 20.

destroyed, or otherwise missing; ... and any other material relating to the potential accession.”²⁰ Once the records concerned are accessioned, “some repositories convert the donor case file, along with the lead file information, into a collection accession file where it will be needed by the archivists arranging and describing the records.”²¹ In his chapter on accessioning, Ham suggests that information gathered through identification, appraisal, and accessioning activities, and later used in arranging and describing the records, can be linked in a database for central “process control” of these functions as well as for storage, preservation, and generating administrative statistics.²²

Example: One Post Journal Narrative, Two Contexts 2 – Acquisition Files

The records created by the HBC were already part of its assets when the Archives department was established, so the official Moose Factory post journal, B.135/a/76, did not require appraisal or acquisition. The acquisition of the rough journal, E.372, is documented in the HBCA’s Acquisitions Files. The contents of this file document contacts with the donor and details of the purchase of the journal, physical and textual comparisons of the rough journal with the corresponding official journals, and notes pertaining to the establishment of fair market value of the rough journal. The textual comparison identifies the writers of sections of the texts and their significance in relation to the events at the post; it identifies that, since pages are missing from the journal but there are no gaps in the text, an “old book” was used for the rough journal; and it notes the location of the official versions of the accounts which form the cover. The physical

²⁰ Gerald Ham, *Selecting and Appraising Archives and Manuscripts*, Archival Fundamentals Series (Chicago, Society of American Archivists, 1993), 40. This publication superseded Britchford’s.

²¹ Ibid.

²² Ibid., 88-90.

*comparison describes many features already discussed in Chapter One and a Records Examination Report recommends documentation and stabilization of the broken binding.*²³

Some of the information in the acquisition file clearly informs the publicly available information about the journal. The journal's writers and missing pages are noted in the one-page description of this record available in the Archives' research room. In the internal correspondence in the file, the archivist notes how the materiality of this record provides insight into the recordkeeping realities at the post, but these observations are absent from the publicly available information regarding these records.

*While the HBCA's acquisition file is not intended to be an accession file as described by Ham, the Archives does not have a more central location for recording decisions regarding records since the workgroups responsible for different functions maintain separate files. There is, therefore, nowhere to go to gain an understanding of what it was about these records that was considered to be valuable, and to provide a basis for managing the preservation of those properties which contribute to this value.*²⁴

Arrangement and Processing

Records often arrive at archives in a variety of sizes and shapes of containers.

Poor storage conditions may have left them dusty, mouldy or encrusted in rodent or bird

²³ Archives of Manitoba, Hudson's Bay Company Archives, Acquisitions File 2002/13. Permission to view this file was granted in accordance with *The Freedom Of Information and Protection of Privacy Act*. The physical comparison and the examination report and recommendations were written by the author. The archivist responsible for this acquisition has since retired.

²⁴ For instance, if notations on file folders contribute to the value of the records, then this information must be communicated to ensure that the file folders are not simply replaced during processing or subsequent holdings management – inadvertently destroying part of the records in the cause of preserving the contents of the folders.

droppings. The files may be out of sequence, or without any discernable organization principle. To prepare the records for storage and for use, the archives may need to arrange the records in some coherent order, ideally the “original order” used by the creator, but sometimes new relationships may need to be created, such as organizing correspondence chronologically, or alphabetically by correspondent. Such conceptual groupings or re-orderings are physically reinforced through folders and boxes, or the groupings may be entirely or partially defined by physical size, or by medium, or even by storage locations or facilities. In a 2005 review of processing practices, Mark A. Greene and Dennis Meissner indicate that archival literature and practice is “inconsistent and even schizophrenic about defining the parameters of processing.”²⁵ They note that most archival manuals suggest that routine arrangement should go only to the folder level – enough to provide an overview of contents and possibly a list of file titles – rather than requiring item-by-item handling, but that many archives go beyond boxing or re-boxing, or foldering or re-foldering, to such item-level tasks as folding or unfolding, rolling or unrolling, disbinding, and removing each staple or paperclip fastening together pages of letters, reports, and so on.²⁶ Three-dimensional records, and audio-visual records and electronic records, are often separated out for separate storage or further processing.

These technologies of stewardship extend to “archival supplies” – the commercially available boxes, folders and cabinets marketed for this purpose. The colours of “archival” supplies are neutral (white, grey and tan), the forms uniform and utilitarian, implying the archives’ selection and stewardship of these resources as equally orderly, dispassionate and unbiased.

²⁵ Mark A. Greene and Dennis Meissner, “More Product, Less Process: Revamping Traditional Archival Processing,” *American Archivist* 68 (Fall/Winter 2005): 227.

²⁶ *Ibid.*, 213-214.

Example: One Post Journal Narrative, Two Contexts 3 – Arrangement

At the Archives of Manitoba most of the records housed in the main building downtown are stored in standard “archival boxes:” five inches wide, ten inches high and fifteen inches long, and made of materials meeting internationally recognized standards for long-term storage of cultural property.²⁷ The official post journals are stored in sequence, in these standard boxes, each in its own labelled folder. The rough journal shares its storage box with other privately acquired records of similar size, and is located at a physical remove from the official journals.

Practical considerations of space management, as well as improving preservation and accessibility, motivate archives to alter the physical interrelationships between records. These interventions are not routinely documented, however, so physical evidence manifested in the physical spatial relationships and attachments between records may be masked or destroyed in this process, and the archive’s role in this diminution of contextual evidence is neither disclosed nor challenged.

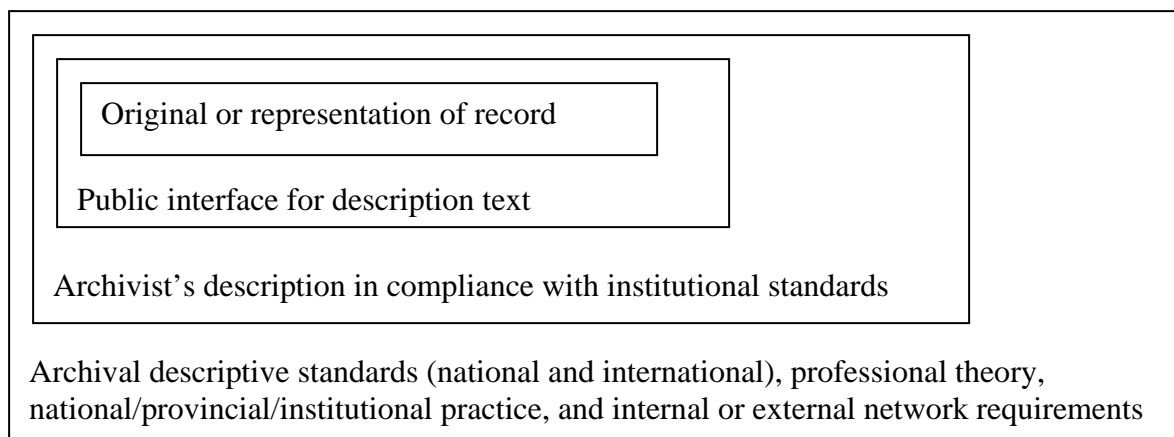
Description

Most researchers first become aware of particular records through archival descriptions presented to researchers following the principle of provenance, which foregrounds (and privileges) the relationship between the records and their creator or

²⁷ Records destined for storage at the Manitoba Government Records Centre are packed in ordinary cardboard cubic foot-sized boxes for higher density warehouse storage, and to endure being stacked 4 or 5 boxes high for handling by forklift. While this kind of warehouse storage is most cost-effective for the high volumes of government records which form the bulk of public administration, it is not an image associated with stewardship of memory and is not openly promoted by archives.

donor. The description frames the records in a standardized format intended to provide context for the records and to help the researcher decide which records may best serve their needs. Wendy Duff and Verne Harris observe: “The power to describe is the power to make and remake records and to determine how they will be used and remade in the future For the form of narrativity – like all forms – is not merely a neutral container. It shapes, even determines, the narrative content in significant ways.”²⁸ In creating these narratives, following their various descriptive systems and templates, archives and archivists determine what researchers can know about the records, as represented visually in Figure 3.2.

Figure 3.2 Levels of Mediation: Archival Description of Original



Traditional models of archival description are based on discrete creators and discrete units of records. Nevertheless, records with multiple creators, and which take part in multiple activities, are increasingly the norm in an electronic environment. Use of computer systems for retrieval of electronic records, for digitized representations of non-

²⁸ Wendy M. Duff and Verne Harris, “Stories and Names: Archival Description as Narrating Records and Constructing Meanings,” *Archival Science* 2 (2002): 272 and 276.

electronic (material or analogue) records, and for searching on-line finding aids, has challenged archivists with creating access tools that meet both researcher and internal management needs. These tools may allow archivists to reflect these multiple, or blurred, provenance relationships more accurately. Barbara Reed observes that “all our traditional records and archives control systems are metadata management systems: that is, they are designed to manage information about records”²⁹ She suggests three possible purposes for capturing information about records: creation of surrogate representations; representation of information about recordkeeping processes; and long-term management of records.³⁰ While effective recordkeeping systems for electronic records must meet these objectives, the objectives are applicable to all media. David Bearman has been critical of the object orientation³¹ of traditional archival description, with their focus on surrogate representations of physical units of records,³² and, like Reed, he has advocated development of documentation systems based on the newer contextual understanding of the archival principle of provenance, as discussed in Chapter Two.

The Canadian standard, *Rules for Archival Description (RAD)*,³³ follows the “traditional” description model and has been widely adopted by archives across Canada.³⁴

²⁹ Barbara Reed, “Metadata: Core Record or Core Business,” *Archives and Manuscripts* 25 (November 1997): 219. For a more polarized view of metadata and description see *Archivaria* 39 (Spring 1995), which includes: David Wallace, “Managing the Present: Metadata as Archival Description,” 11-21; Heather McNeil, “Metadata Strategies and Archival Description: Comparing Apples to Oranges,” 22-32; and Wendy Duff, “Will Metadata Replace Archival Description: A Commentary,” 33-38.

³⁰ Reed, “Metadata,” 220-221.

³¹ Metadata approaches have been classified as object oriented, process oriented, or a combination of these. Reed discusses the University of British Columbia’s template from the Preservation of the Integrity of Electronic Records project as an example of an object-oriented system, and the University of Pittsburgh’s Business Acceptable Communications model from the Functional Requirements for Evidence in Recordkeeping project as an example of a process-oriented model in Reed, *ibid.*, 218-241.

³² David Bearman, “Documenting Documentation,” *Archivaria* 34 (Summer, 1992): 34.

³³ Canadian Council of Archives, *Rules for Archival Description*, revised version July 2008, available at <http://www.cdnaouncilarchives.ca/archdesrules.html> (accessed 8 November 2008).

Chapter One of *RAD* provides the basic rules for description of material at the fonds level (although the same principles are to be used as series, file and item levels, as required), while the subsequent chapters provide details for dealing with each specific “class of material.”³⁵ The “Prescribed sources of information” for description of records is specified to be “all the materials” in the aggregate of records, and at the file and item levels the sources are specified to be the titles or labels on the records. Even for “Graphic materials,” textual sources of information are preferred to “the item itself” (rule 4.0B1.4[b]). An incorrect written interpretation of the material evidence might therefore be privileged over embodied primary material evidence itself as an information source for the description.³⁶

RAD specifies description of physical aspects of records only within the Physical Description area (1.5).³⁷ Only the “Extent of descriptive unit including specific material designation” (1.5B) element is mandatory, so a *RAD*-compliant physical description of each of the Moose Fort journals might be as brief as: *textual records: 1 volume*. An optional element is provided for “other physical details” (3.5C1), but in the chapter for

³⁴ Compliance with *RAD* has been identified by Library and Archives Canada and the Canadian Council of Archives as a strategic priority and is supported with grant funding through the National Archival Development Program (NADP). See documents at http://www.cdncouncilarchives.ca/NADP_09-10.html (accessed 12 November 2008).

³⁵ The “Classes of material” are for the most part media-based, not function or context-based (i.e. textual records, sound recordings, architectural and technical drawings). The “Records in Electronic Form” class, however, is based on storage media since it includes both digitized analogue records and born-digital records, and the identification of the form the electronic data takes when rendered (text, sound, cartographic image) is optional (9.1C). Conversely, a chapter is devoted to philatelic records which could be seen as a function based sub-category of graphic materials.

³⁶ Joan Schwartz has discussed the limitations of *RAD* as a text-biased model, poorly suited to meaningful description of visual images as records, in Joan M. Schwartz, “Coming to Terms with Photographs: Descriptive Standards, Linguistic “Othering,” and the Margins of Archivry,” *Archivaria* 54 (Fall 2002): 142-171.

³⁷ As the numbering of the sections is the same for both the General Rules and the media-specific Rules, and to facilitate comparisons of Rules application across media chapters, only the sections rather than page numbers will be cited.

textual records the examples are limited to supports “other than paper, the presence of seals, illustrations, maps, or the type of binding;” a paper support is not itself significant enough for notice, and no mention is made of the writing medium. These directions and the examples provided might shape the official Moose Fort Journal description to read:

textual records: 1 volume: watermarks; pamphlet-bound; 32cm x 20 cm approx..

The Physical Description of records is separated from the “Archival description area” (1.7), which includes elements for the administrative and custodial history of the records creator. No part of the physical description field calls for systematic identification of the material composition and technologies involved in the creation, or of evidence of physical changes to the state of the records since their creation (other than damages still present).³⁸ While the inclusion of seals and bindings in the examples above suggest this is the place to record their presence, their context as integral organizational – let alone functional – devices is lost. There is also no requirement to identify how the unit being described participated in recordkeeping systems. While accurate information regarding record materials, technologies, and condition over time would enhance description for, and access by researchers, this information is also necessary for effective management of their preservation.

³⁸ An optional Notes area (1.8) includes elements for Physical Condition and Conservation. The Physical Condition element (1.8B9a) is only to be used if “that condition materially affects the clarity of legibility of the records.” The Conservation element (1.8B9b) is only for indicating the nature of any “conservation treatment” the unit has received; since these terms are not defined, it is difficult to determine whether the scope is limited to conservation treatments carried out by a professional conservator, or to all repairs by custodians over time (including those which have since failed or caused additional damage), or if it should include the common interventions carried out during arrangement and processing, such as flattening, or re-housing.

Example: One Post Journal Narrative, Two Contexts 4 - Description

Archival records may be described at the fonds, series or item levels. The official journal, B.135/a/76, fits into the Post Journals sub-sub-series (a), of the Moose Factory sub-series (135), of the series of post records (B), of the HBC fonds. The 195 Moose Factory post journals in the HBCA cover the years 1730-1941. These are described together in the 1955 HBCA catalogue³⁹ through a list of the reference numbers, post locations and dates. As indicated earlier, the description of the rough journal prepared after its acquisition indicates its writers, as well as physical details such as the missing pages, and it highlights the unusual binding construction. The 1955 catalogue and the 2002 description are only available as hard copies in the Archives' research room.

The online finding aids for the HBCA include brief descriptions of the written content of the different types of post records; their materiality is presumably implied by the term "journal."⁴⁰ The RAD-compliant physical description of the Moose Fort post journals in the Archives Descriptive Database is limited to the total number of items in this series. The Scope and Content fields indicate that the series includes "rough copies of journals, from which official copies were made and sent to London, for the years 1789 to 1791," and the Custodial History field indicates that the "the rough journals for 1789-1791 (E.372/1)" were purchased from the donor.⁴¹ No indication is given that these "journals" for 1789-91 are a single bound structure with continuous entries, that it was not physically constructed as a unit until sometime after 1793, or that it physically differs from the official journals in any way. The materiality of the records is not represented in

³⁹ HBC Catalogue of Archives, Section B, vol. 1, Post Journals 1705-1870, p. 76.

⁴⁰ Available at http://www.gov.mb.ca/chc/archives/hbca/resource/post_rec/types.html (accessed 31 December 2007).

⁴¹ Available at <http://198.163.9.120/scripts/minisa.dll/975/6/17/1a89?RECORD> (accessed 31 December 2007).

this description, yet it is important to understanding the different roles the official and rough journals played in the life of the fort and of the HBC.

At the Archives of Manitoba, researchers and staff are encouraged to use the on-line descriptions. Researchers working on-site will also normally be expected to use microfilmed representations of original HBCA records, although they can also request the original versions for use.⁴² The limited description of the materiality of the records will not be a barrier if the original is available for research; however, the description is the entry point for off-site access to surrogate representations of the records, such as inter-library loan of microfilm, and in future, for digital images of the records.

By relegating materiality to mainly optional fields, and by separating physical description from description of the records' contexts of creation and use, *RAD* represents the physical qualities of records as distinct from, and of less significance than, their "archival" nature. The physical manifestations of the histories of creation, use and care of the records are excluded from the core elements of standard archival description.⁴³ While many of the chapters for individual media highlight a wide variety of material features for those forms of records, these details are inconsistent and are not based in the principle of provenance. They highlight the matter, not the mind behind their creation: they appear to start with the question "What is it" (form) rather than "What does it do" (function) followed by "How does it do what it does" (form).

⁴² Since the Archives' research room does not have humidification in the winter, vellum-bound records are not available for consultation during the heating season. Special arrangements may be made for viewing these records in alternate humidified areas. The rough journal has not been microfilmed, so only the original is available.

⁴³ Laura Millar has proposed that the importance of provenance in *RAD* should be elevated and expanded beyond creatorship and custodial history to also consider creator history and records history, in Miller, "Death of the Fonds," 12-13.

Access, Visual Surrogates and Outreach Programs

Archival descriptions are a critical access tool for both on-site and remote access to records. Time, travel, and financial constraints may prevent researchers from physically entering an archives to consult records, and not every archives allows access to the original forms of records, usually citing restrictions due to preservation or security concerns.⁴⁴ In these cases researchers may be limited to visual surrogate representations of the original records, and may not be aware of how these surrogates themselves shape what can be known about the records they represent.⁴⁵

While publication of transcriptions was the earliest way to multiply and disseminate text content of archival records, printed facsimiles could also be created, although these required the crafting of a reverse image as an intermediary step. The development of photographic processes in the second half of the nineteenth century made photographically created and reproduced facsimiles possible, eliminating the human error introduced by the manual transcriber, and reducing the amount of interpretation required of the printer. Microfilming was developed to sequentially capture and store small-scale photographic images of records. To manage the huge volume of archival government records produced during the First and Second World Wars, some archives started large-scale “reformatting” of the records – reproducing them on microfilm, sometimes without

⁴⁴ Library and Archives Canada, Archives of Ontario and the British Columbia Archives rarely grant research access to original records when a surrogate representation is available.

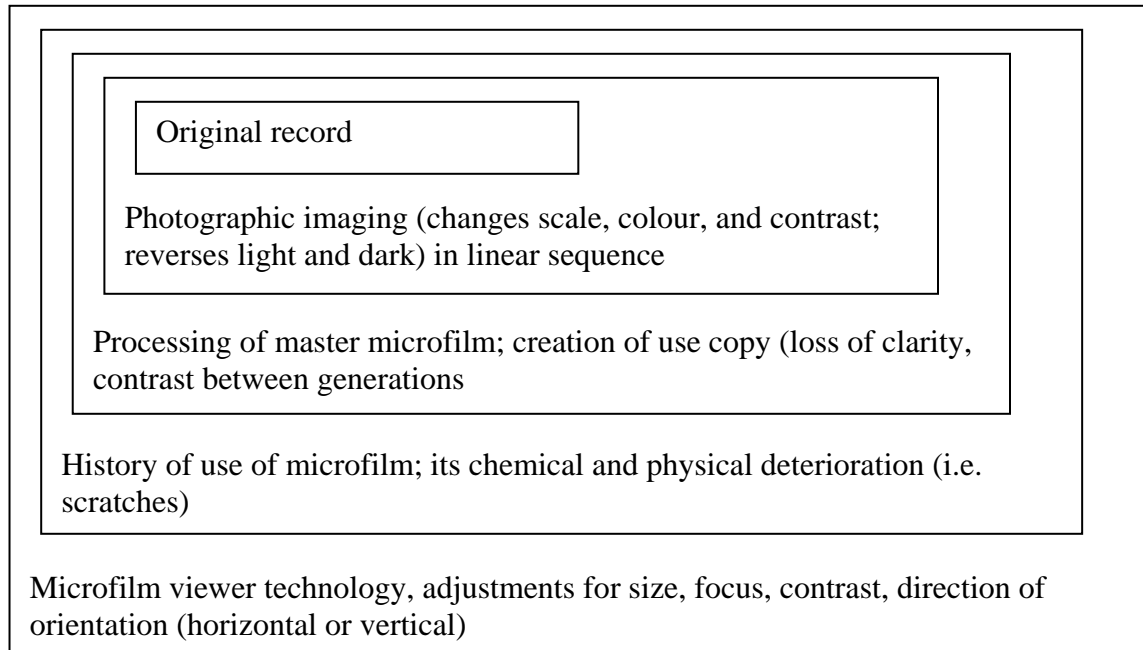
⁴⁵ Martha Howell and Walter Prevenier caution that the historian must understand the context in which copies of records have been created, and that it is the responsibility of a text editor to identify any differences from the original text, in *From Reliable Sources: An Introduction to Historical Methods* (Ithaca, NY and London: Cornell University Press, 2001),” 63-64. Howell and Prevenier only refer to differences in the written text, however, and do not discuss changes in materiality between originals and copies of records, nor do they mention any other means of representing records.

retaining the original source records.⁴⁶ While microfilm is limited in its ability to capture the colours and to differentiate details of source records, it is easily reproducible, and easy to sell or loan to research facilities or individual researchers with access to microfilm readers. Microfilm can also be converted now to digital images to facilitate use of these images in digital publications and websites.

Microfilm has been relatively undisputed as a tool to broaden access to records, but, as digitized representations of original analogue records become increasingly available, a few critical voices have drawn attention to what is lost in this translation from the source record. Archivist Joanna Sassoon has suggested that while mechanical reproduction technologies, such as digital imaging, can be seen as democratic because they are used to improve access, these technologies can also be repressive because they control “what is made accessible, and with criteria as to what is appropriate to be made public through digitising rarely being discussed.”⁴⁷ The mediations between the original document and the microfilm image observed by the researcher also obscure the materiality of the source records, represented visually in Figure 3.3.

⁴⁶ Public controversies regarding destruction of microfilmed source documents and newspapers have indicated deeper emotional and social ties to records as historic artifacts. See for instance Carolyn Heald, “Are We Collecting the ‘Right Stuff’?,” *Archivaria* 40 (Fall 1995): 186. For a popular critique of the practice of microfilming and then destroying the source newspapers, see Nicholson Baker, *Double Fold: Libraries on the Assault on Paper* (New York: Random House, 2001); for a rebuttal of Baker’s arguments, while acknowledging that archives need to make their decisions and actions more transparent, see Richard Cox, *Vandals in the Stacks?: A Response to Nicholson Baker’s Assault on Libraries* (Westport, CT: Greenwood Press, 2002).

⁴⁷ Joanna Sassoon, “Photographic Meaning in the Age of Digital Reproduction,” *LASIE (Library Automated Systems Information Exchange)* (December 1998): 9.

Figure 3.3 Levels of Mediation: Interaction with Microfilm of Original Record***Example: One Post Journal Narrative, Two Contexts 5 – Microfilmed Images***

HBCA records have been systematically microfilmed since the 1950s, but the rough journal has not yet been microfilmed. Microfilm scans of the cover and pages of the official journal corresponding with Figures 1.2-1.4 in Chapter One are found in Figures 3.4- 3.6. A single reel of microfilm 1M89 carries images of the official Moose Factory journals from 1785 to 1796.⁴⁸ The high-contrast black-and-white images of the journal are preceded by a page identifying the journal reference number, its ownership by the HBC, copyright and representation restrictions, and a scale rule. No information appears, either on the film or in the related archival description, regarding the administrative or technical processes and standards which informed the microfilming. The thickness of the journal is not captured in this imaging. The cover was photographed

⁴⁸ Archives of Manitoba, HBCA, Moose Factory post journals, 1M89.

as a single page and appears close to full scale on a microfilm reader screen. The open journal pages have been photographed as double-page images so while the page-to-page relationships are effectively retained, the pages are reduced in size on the screen.

Figure 3.4 Cover of B.135/a/76 as it Appears on Microfilm 1M89. Note the appearance of the film sprocket holes in the image. Archives of Manitoba, HBCA, 1M89.

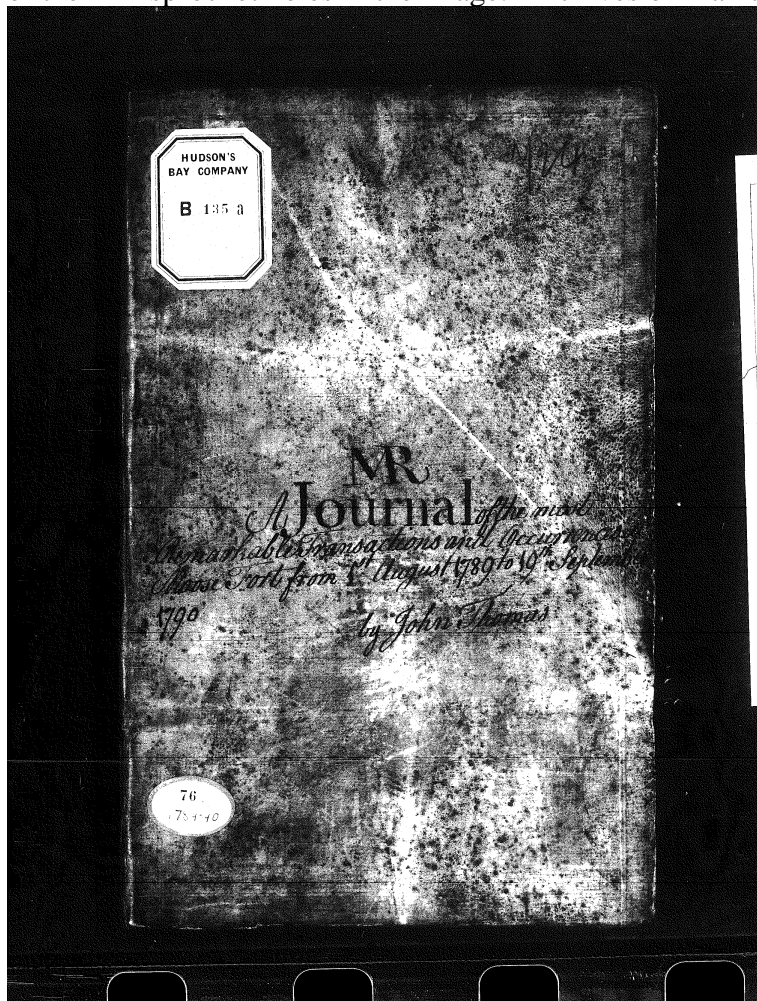


Figure 3.5 First Page of Journal Entries in B.135/a/76 as it Appears on Microfilm 1M89. Note fingertip of camera operator holding the journal open at bottom left.

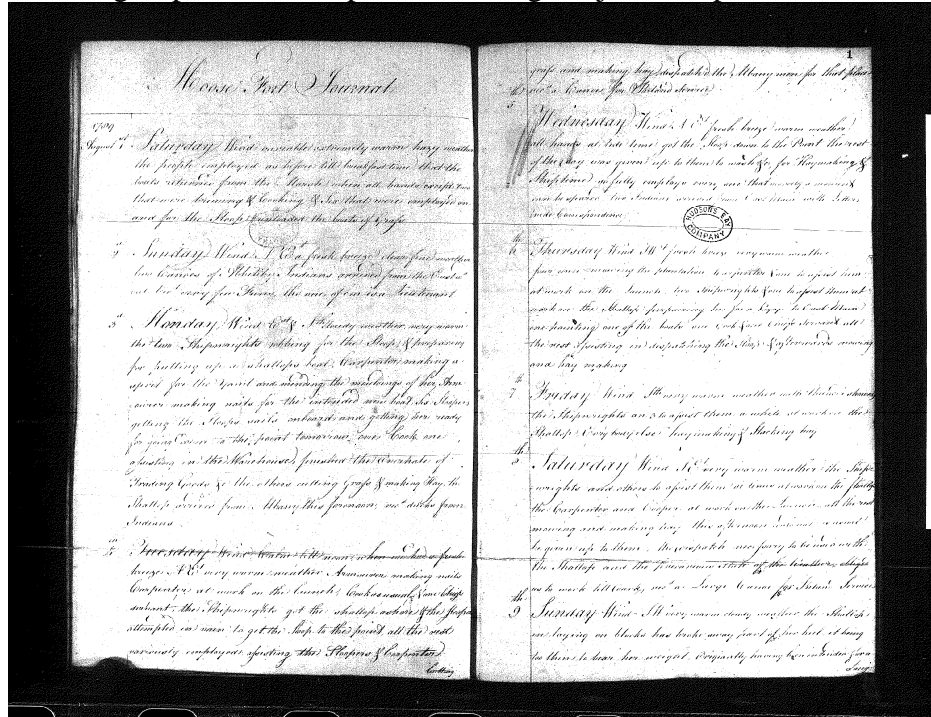
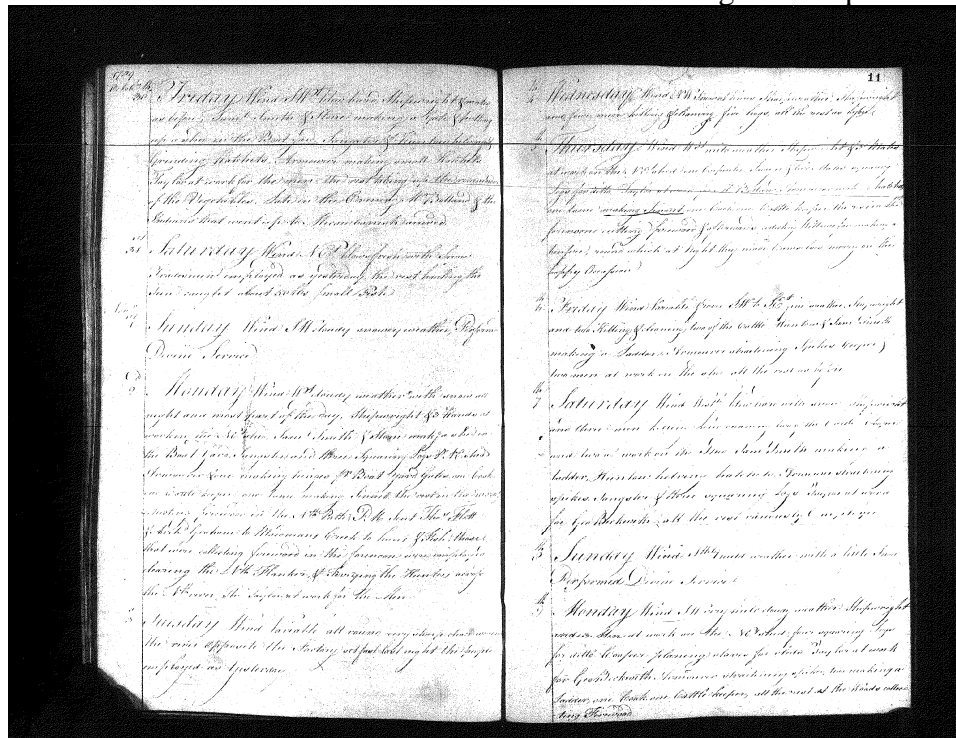


Figure 3.6 Page of 11 of Journal Entries in B.135/a/76 as it Appears on Microfilm 1M89. Note black horizontal line of scratch across image near top.



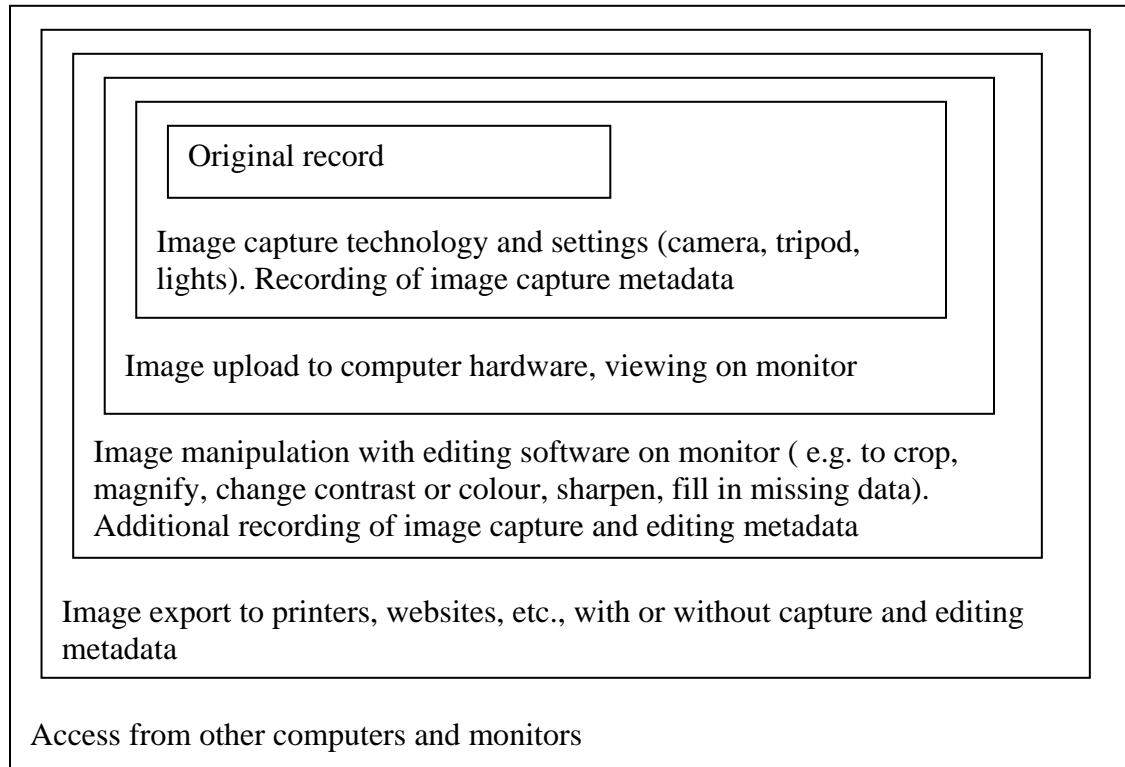
At the Archives, microfilmed images can be printed from a reader/printer, or they can be scanned as digital files and saved or printed from a microfilm scanner. Digital scanning and printing further increase the contrast between the light and dark areas of the image, and the thinnest pen strokes are barely visible. Stains and shadows appear darker in the microfilm image, creating a different visual balance. Horizontal scratches on the surface of the film appear in the scans, but because these are as black as the background and they appear in the same compressed visual plane as the image, some of these lines may be interpreted as marks on, or folds in, the pages of the journal. These create additional sources of uncertainty and potential error in interpreting the materiality of the reproduced images. When reading the text of the original manuscripts, the human mind can give higher priority to the colour and orientation of the writing, and lower priority to other visual information, such as stains and shadows. The mind can also shift attention to other physical properties of a record, such as contrasting hues and tones of colours, texture of pages, appearance of the stains and other non-text phenomena, the crisp sound of the turning pages and the smell of the materials.

While the page images are more visually accurate representations of the journal's structure than any transcriptions could be, the materiality – and especially the mechanical action – of the original journals is displaced by the new materiality of the microfilm form. The action of loading and viewing a microfilm involves threading the plastic film onto the metal and glass apparatus, and cranking a small handle to pull the film through the machine. The image appears backlit on a flat glass screen. The scrolling action of the microfilm is more analogous to a long electronic document than a book. The microfilm technology enhances the linear sequencing of the official journals

as a standardized corporate narrative, but obscures the communicative action more directly manifest in the materiality of the individual journals. The flat static images of the microfilmed pages are fundamentally different in character from the physical qualities of the journal, and the researcher's dynamic interaction with the three-dimensional journal is replaced by interaction with the microfilm reader or computer interface.

Digital images made from the original records, rather than from microfilm of the records, have more potential for accurate visual representation of some qualities of archival records, such as colour.⁴⁹ There is, however, also potential for misrepresenting these qualities (whether intentionally or not) at the points of image capture, editing, printing or screen rendering as represented visually in Figure 3.7.

⁴⁹ The limitations of later generations of images will be readily apparent to readers of the electronic versions of photographically illustrated theses through the Thesis Canada Portal (<http://collectionscanada.ca/thesescanada/index-e.html>). They will be looking at a digital copies made from microforms of printed theses, even when the thesis may have been created electronically, and may find the images almost incomprehensible.

Figure 3.7 Levels of Mediation: Interaction with Digital Image of Original (speculative)

Microfilm, being a tangible linear sequence of images perceivable to the eye, would show evidence of tampering with the sequence or content of the images, and is therefore more reliable as source for historic evidence than photographic or digital images. Individual chemical photographs and photocopies rely on metadata added by their creators to preserve reliable context, but tampering with the physically visible content would still take some effort. Digitized images can potentially be altered without leaving visual (or electronic) traces and are easily recontextualized; even when posted as digital resources on archives' websites, they usually appear with limited or no context to attest to their authenticity and reliability. Researchers working with less mediated, or more transparently mediated, records can be informed by a broader and more reliable range of observations and experiences than if they had been limited to surrogate images.

Archivists working with visual images have looked to art history, anthropology and other interdisciplinary sources to develop a better understanding of how non-textual records communicate. Joanna Sassoon advises that significant meaning is lost or distorted in the process of digitizing archival photographs: the change in format creates “new discursive systems which may obliterate previous meanings,” resulting in the “dematerialising, dehistoricising and decontextualising” of the historic photographs as they are conflated with their digital images.⁵⁰ While the creation and dissemination of digitized images of photographs increases access to the image content, the context and materiality of the original photograph are lost.⁵¹ Sassoon limits herself to discussing photographs in this article, but it appears clear that the context and materiality of source documents in any medium will always be different from the context and materiality of the representations of those documents. More recently, Sassoon has cautioned archives to consider the implications of digitization of archival records for the evidential value of those records.⁵² Additionally, she has called for archives to expose, and for historians to call archives to make evident, their roles in “pre-cooking the raw materials of history.”⁵³

⁵⁰ Sassoon, “Photographic Meaning in the Age of Digital Reproduction,” 13.

⁵¹ *Ibid.*, 12.

⁵² Joanna Sassoon, “If Digitization of Archival Records is the Answer, What on Earth is/are the Questions?,” lecture sponsored by the Association for Manitoba Archives, 2 October, 2007, Archives of Manitoba, Winnipeg, Manitoba. Historian James Opp has called for archives to better document the connections between the materiality of original photographs and their later iterations, including the digitized images of the photographs made by archives, in “The Colonial Legacies of the Digital Archive: The Arnold Lupson Photographic Collection,” *Archivaria* 65 (Spring 2008): 3-19.

⁵³ Joanna Sassoon, “Beyond Phantoms of Remembrance,” paper presented as part of the University of Manitoba Department of History colloquium series, 3 October 2007, University of Manitoba, Winnipeg, Manitoba. Some related comments also appear in Joanna Sassoon, “Beyond Chip Monks and Paper Tigers: Toward a New Culture of Archival Format Specialists,” *Archival Science* 7 (2007): 133-145.

The scope of what is considered outreach programming can vary greatly between institutions. As described above, archival description and surrogate representations – especially when used in physical or “virtual” exhibitions accessible outside the archives’ building – can be seen as modes of public programming. Other programs may include those developed for student groups or communities, such as orientations for genealogists or other researchers.

Original records, rather than representations, are almost always preferred for such programming. These programs are opportunities for the archives to present specific messages about the role of archives as stewards of records, as well as practical information about the kinds of records archives hold and the kinds of research that can be done in archives. These encounters with “the real thing” are heavily mediated with storylines intended to engage audiences or, at least, to inform them in particular ways: though live presentations by archivists, through sequences of website pages which may lead to on-line descriptions or web exhibits, or through museum-style exhibitions dealing with particular topics. These too are “discursive systems,” as noted by Sassoon, with the potential to alternately highlight or obscure, to contextualize or decontextualize, records and their materiality.⁵⁴

⁵⁴ For several general perspectives of archives and public programming, see *Archivaria* 31 (Winter 1990-91), which was devoted to this topic. More recent publications tend to focus on Internet-based programming and especially user studies for development of descriptive interfaces; see, for instance: Wendy Duff, Barbara Craig and Joan Cherry, “Finding and Using Archival Resources: A Cross-Canada Survey of Historians Studying Canadian History,” *Archivaria* 58 (Fall 2004): 51-80. For a discussion of the strategic use of original material or surrogate representations in exhibitions, see Catherine Nicholls, “Exhibiting Evidence: A Case Study,” *Archivaria* 55 (Spring 2003): 27-42.

Archival Preservation and the Preservation of Archival Value

While one might expect archives to be in the business of preserving the archival value of the records which they have identified as worthy of preservation and therefore have acquired, such fundamental principles as provenance, original order, functional context, or other aspects of records, which obviously contribute to their archival value, are not mentioned the *SAA Glossary*'s definition of preservation.⁵⁵ Information is singled out for protection in this definition, in keeping with the Schellenbergian conception of archival value, while evidence of creators' functions and responsibilities are notably absent. There is also an underlying assumption that changes to records are undesirable, and the possibility that deterioration or damage are themselves potentially meaningful and informative is not considered. Schellenberg includes a chapter on "Preservation Practices" in his book, *Modern Archives: Principles and Techniques*. He notes that for "the modern archivist the perishable quality of his materials is a matter of real concern," suggesting that the archivist "must employ methods that will preserve, either in their original or some other form, the materials that are inherently perishable."⁵⁶ To this end he describes appropriate storage and repair facilities, and describes microphotographic representation as an "Alternative to Repair." Schellenburg's focus is mainly with material records as matter, and not as contextual evidence of mind, and this remains the main concern in the *SAA Glossary* definition.

All things, including all records, are subject to the laws of physics, so they are continuously changing. The rates at which the various components of records deteriorate

⁵⁵ Pearce-Moses, *Glossary*, http://www.archivists.org/glossary/term_details.asp?DefinitionKey=78 (accessed 23 February 2006).

⁵⁶ T. R. Schellenberg, *Modern Archives Principles and Techniques* (Chicago: University of Chicago Press, 1956), 161.

can be changed significantly by altering the variables related to these rates,⁵⁷ but deterioration cannot be prevented, only slowed down by tens or even hundreds of years. Records designated archival (selected for preservation) last week have experienced another week of deterioration: another week in which the some of the chains of cellulose molecules which make up paper fibres became shorter; in which the computer software and hardware came closer to obsolescence; in which the carrier of the oral records came closer to death. Life goes on for the record identified for preservation, but it has acquired an additional week of deterioration in a particular environment.⁵⁸ Preservation of archival records in an unchanging state is impossible, so either this goal must either be compromised by downgrading expectations to minimizing the changes to material records, or the value of records' materiality may be avoided altogether by redefining records as information *about* rather than evidence *of* something.

In "On the Idea of Permanence," James O'Toole indicates that the concept of "archival" records is often considered synonymous with "permanent" records.⁵⁹ O'Toole suggests that a conceptual distinction between "the permanence of the archival documents themselves and the permanence of the information they contained," as previously discussed in Chapter Two, is a stage in the history of collecting which was

⁵⁷ Extensive research in this area has been done for material records. An excellent example of how this primary research has been interpreted and applied to archival materials is Stephan Michalski, *Guidelines for Humidity and Temperature for Canadian Archives*, Canadian Conservation Institute Technical Bulletin #23 (Ottawa: Minister of Public Works and Government Services, 2000).

⁵⁸ Common usage of "preservation" confuses further: if something is said to have been preserved, then a preservation activity has been completed and no further action is needed, for if further action was needed, it could not be said to be preserved. Preservation may also be expressed as a continuum, as in a relative "state of preservation."

⁵⁹ James O'Toole, "On the Idea of Permanence," *American Archivist* 52 (Winter 1989): 14.

carried through into the twentieth century.⁶⁰ Mass technological “solutions” to the “problem” of rendering physically impermanent records permanent, or of at least extending their useable life, have been marketed by entrepreneurs to address dissatisfaction with surrogate representation as a preservation method.⁶¹ The realization of the impossibility of preserving records permanently in their original forms coincided with the archival profession’s reassessment of the concept of permanent value, and opened the door to potential re-appraisal of archival records.

In this article, O’Toole brings valuable perspectives to current approaches to archival preservation practice and its underlying theory. Records become archival by being designated by archivists as having archival value; archival value is considered permanent unless re-appraisal or retro-appraisal finds the previous archival valuation to have been incorrect or lost. Because valorization is a socio-cultural activity, specific to a time and place, the permanence of value can never be absolute, and can change within decades. Some material things will certainly “outlive” the concept of permanence, but artifacts can only be physically durable; they cannot remain intact and unchanged.⁶² Permanence has probably always been a rhetorical goal, rather than an expected outcome, of preservation activities. Indeed, current standards for “permanent paper” specify only

⁶⁰ Ibid., 16.

⁶¹ Ibid., 18-20 *passim*. Examples of these “solutions” include lamination and de-acidification, as well as wholesale re-housing of records in “acid-free” “archival” file folders and boxes. O’Toole refers several times to conservators making claims to enabling permanence of archival records. Time and space limitations preclude investigation of the authors of O’Toole’s sources for this chapter, but it bears noting that there are no restrictions on who can call themselves a “conservator” in Canada or in the United States. In my fifteen years as a professional conservator, I have never come across such extreme claims in peer-reviewed conservation literature or in publications written, or endorsed, by professional conservators. Since these claims defy both logic and science, one wonders what information was provided to back them up, and how critically these claims were examined by archivists at the time.

⁶² Even petroglyphs carved in granite bedrock require care to reduce the rate of erosion by precipitation and biological growth – the glyphs may last thousands of years, and the underlying rock, millions.

material composition and not expected longevity.⁶³ O'Toole indicates that the conceptual separation of records into "physical" and "intellectual" components is an outcome of the failure of artifacts to be permanent, or to be retroactively rendered permanent. Since the archival value of a record may be expected to endure longer than the format life (or the useful life) of significant components of its material composition, it follows that the life of some aspects of the record can be extended through their reproduction as part of another artifact, or "re-formatting" – transferring "information" from one format to another – as discussed in Chapter Two.⁶⁴

This separation continues to inform the preservation literature in the United States, Australia and Canada, which focuses almost exclusively on methodology and does not question what is to be preserved and why.⁶⁵ The implied goal of the preservation

⁶³ A comparison of the permanent paper standards ANSI Z39.48-1992, ISO 9706, and ISO/DIS 11108 can be found in Library of Congress, "Appendix 3: Comparison of Permanent Paper Standards," *Final Report to Congress on the Joint Resolution to Establish a National Policy on Paper*, available at http://www.loc.gov/preserv/pub/perm/pp_x3.html (accessed 20 December 2008). The frequently endorsed Permalife paper is marketed with information relating to these standards, as well as the claim that it did not yellow or become brittle in "tests simulating usage for 300+ years." (See for example <http://www.carrmclean.ca> for an example of this information.)

⁶⁴ "Format life is the length of time which, given reasonable care, the information contained in the records will remain usable in its original format. Materials should be reformatted when the format life has expired, if the information in them has continuing value." David Bearman, "Retention and Preservation," *Archival Methods*, Archives and Museum Informatics Technical Report 3, no. 1 (Pittsburg: Archives and Museum Informatics, 1989), 21. After reformatting the source, records may be destroyed as redundant. Records appear to have been defined so that what is being destroyed is distinct from what is to be preserved.

⁶⁵ Works examined for this chapter include Canadian Council of Archives, *Basic Conservation of Archival Materials*, revised edition 2003, available at http://www.cdncouncilarchives.ca/public_free.html (accessed 12 December 2008); Paul Conway, "Archival Preservation Practice in a Nationwide Context," *American Archivist* 53 (Spring 1990): 204-222; Kenneth W. Duckett, "Physical Care and Conservation," *Modern Manuscripts: A Practical Manual For Their Management, Care, and Use* (Nashville: American Association for State and Local History, 1975), 86-112; G.E. Gorman and Sydney J. Shep, eds., *Preservation Management for Libraries Archives and Museums* (London: Facet Publishing, 2006); Verne Harris, "Preservation," in *Exploring Archives: An Introduction to Archival Ideas and Practice in South Africa* (Pretoria: National Archives of South Africa, 2000), 46-52; Ross Harvey, "Preservation," in *Keeping Archives* (second edition), ed. Judith Ellis, 74-107 (Melbourne: Thorpe in association with the Australian Society of Archivists, 1992); Nancy Marrelli,

activities described is to preserve information as written, image, and aural content.

Because this information is bound to material substrates, archival preservation texts have focussed largely on managing the longevity of that matter (at least until re-formatting is necessary or possible). In a review of writings on archival preservation which appeared in the *American Archivist*, Richard Cox observes that since essays on preservation first started to appear in that journal in the 1950s, “The literature has been oriented toward conservation techniques with a few articles focusing on broader issues of research, disaster recovery, integration of preservation management throughout an archival program’s functions, or education.”⁶⁶ Cox’s article includes a chart showing the number of articles in the decades from 1950 to 1990, with 1970-1979 as the peak years. While Cox does not discuss this distribution, it appears to bear out O’Toole’s observations of this period representing a peak of preservation as a “crisis,” and the rise of re-formatting as a major preservation strategy or “solution” to that crisis.

There have been occasional critical evaluations of archival preservation practice. In 1992 Richard Cox identified nine preservation challenges or issues related to preservation of “America’s documentary heritage.” Of particular interest among these is the explicit link between appraisal and preservation which leads back to larger questions

Implementing Preservation Management: A How-To Manual For Archives (Montreal: Réseau des archives du Québec, 1996); National Association of Government Archives and Records Administrators (NAGARA) *Guide & Resources For Archival Strategic Preservation Planning (GRASP) Manual* (Atlanta: NAGARA, 1990); Sherelyn Ogden, *Preservation Planning: Guidelines For Writing a Long-Range Plan*, Professional Practice Series (Washington: Technical Information Service, 1997); Mary Lynn Ritzenthaler, *Archives and Manuscripts: Conservation: A Manual on Physical Care and Management*, Basic Manual Series (Chicago: Society of American Archivists, 1983); and Mary Lynn Ritzenthaler, *Preserving Archives and Manuscripts*, Archival Fundamentals Series (Chicago: Society of American Archivists, 1993).

⁶⁶ Richard J. Cox, “Archival Preservation Interests and Issues: An American Perspective,” in *Advances in Preservation and Access*, vol. 1, eds. Barbra Buckner Higginbotham and Mary E. Jackson (Westport, CN and London: Meckler Corporation, 1992), 229.

of the nature of records and of value: “the resolution of this debate [between evidential and informational value] has tremendous implications for the selection of records for preservation in the future. Evidential value may well place greater stress on preserving original formats, while informational value favors reformatting approaches.”⁶⁷ Cox advocates the development of archival preservation theory, but notes that American archivists have generally avoided theory, with the result that research in this area is not supported. He calls for archivists “to consider the underlying principles of preservation practice and the universality of the principles’ application. This will test assumptions, lead to new concepts, and improve practice.”⁶⁸ In 1996 Tyler Waters reviewed the literature related to how archives select records for preservation interventions and recommends that “Only when the values and ideas in appraisal theories are better understood and the decisions-flow processes rationalized and modeled, should archivists set their sights on creating implementation tools to assist them in their selection for preservation decisions.”⁶⁹ Walters proposes two prerequisites to development of better preservation selection tools: the application of modern appraisal approaches such as macro-appraisal and documentation strategy that “identify and illuminate the archival value in records;” and “rationalizing further how archivists derive information about their collections’ physical condition, as well as the intensity and nature of their use.”⁷⁰ While rooted in the Schellenbergian appraisal criteria of informational and evidential value and potential for research use, both Cox and Walters set a context for potentially embracing

⁶⁷ Cox, “Archival Preservation Interests and Issues,” 235.

⁶⁸ Ibid.

⁶⁹ Tyler O. Waters, “Contemporary Archival Appraisal Methods and Preservation Decision-Making,” *American Archivist* 59 (Summer 1996): 336.

⁷⁰ Ibid., 337.

records' materiality as contextuality, but there has been no further development in this area in the archival literature.

In a 2005 article Mark A. Greene and Dennis Meissner reviewed archival preservation and processing literature and conducted surveys to determine what preservation work is done by archives to prepare records for storage and use.⁷¹ They confirm that the literature directed archives staff to carry out such item-level preservation activities as removing metal fasteners (i.e. staples, paperclips), replacing acidic or brittle material with photocopies, and interleaving or isolating acidic or coloured material in acid-free paper folders or clear plastic sleeves,⁷² and that at least one of these activities is carried out routinely by at least 58 per cent, and as many as 88 per cent, of the archival repositories surveyed.⁷³ They indicate that the SAA's Archives and Archivist's Listserv is "dominated" by discussion regarding the minutia of relative merits of varieties of "archival" paperclips,⁷⁴ and suggest that the benefits of these very common and very time-consuming activities have not been quantified in terms of extending the life of records.⁷⁵ As a result, Greene and Meissner dismiss such preservation work as "a disjointed and haphazard dedication to certain preservation rituals," and "housekeeping compulsions,"⁷⁶ and conclude that such item-level work should only be justified for exceptional cases and that good storage environments are a more effective preservation strategy.⁷⁷ This critical evaluation of preservation practices appears to be unique in the

⁷¹ Greene and Meissner, "More Product, Less Process," *American Archivist* 68 (Fall/Winter 2005): 208-263.

⁷² *Ibid.*, 117-222.

⁷³ *Ibid.*, 230-231.

⁷⁴ *Ibid.*, 221, note 46.

⁷⁵ *Ibid.*, 231, note 231.

⁷⁶ *Ibid.*, 230, 237.

⁷⁷ *Ibid.*, 250-251.

archival literature, and highlights the need for clear relationships between preservation goals and preservation strategies, as well as the importance of archival theory and the resulting broader conceptions of records. It is clear that an institution whose preservation goals include the preservation of archival records as contextual evidence would actively be destroying some of their evidential value through such routine (and undocumented) changes to physical structures and interrelationships.

Example: One Post Journal Narrative, Two Contexts 5 – “Preservation”

As already noted, some aspects of the HBC journals have been preserved through each of the functions described above. Other than the condition assessment and stabilization recommendation provided for the rough journal at the time of appraisal, and housing in separate folders, the journals have not experienced the item-level interventions described by Greene and Meissner. HBC records at the Archives of Manitoba are stored in secure and environmentally controlled vaults, with conditions designed to slow the rate of chemical deterioration of the material components of the records as much as practical within the limitations of the local climate, equipment capabilities and operating costs.

Given that the majority of archival preservation methodology and publications originate in the United States, it is not surprising that they reflect the Schellenbergian tradition. Recent publications from the dominant archival institutions or organizations in Australia, South Africa, and Canada – countries where at least some more strongly contextual approaches have been adopted – also have not reflected substantial shifts in

thinking about preservation strategies and practices. The two pages devoted to preservation in *Archives: Recordkeeping in Society*, the state-of-the-art text from Australia, describe post-custodial models for preservation of electronic records, but do not consider the implications of the new approaches for dealing with non-electronic records.⁷⁸ The brief “Preservation” chapter of South African Verne Harris’ *Exploring Archives* is largely devoted to the activities described above, (albeit with some scepticism as to their effectiveness), and simply concludes by noting that shifts in the nature of preservation activities will inevitably follow the general shift in emphasis to the context of records creation.⁷⁹ The Canadian Council for Archives’ *Basic Conservation Manual for Archives*⁸⁰ remains strictly devoted to methodology, despite the activity of many of the leaders of the contextualist approach, including Hugh Taylor, Tom Nesmith, Joan Schwartz, and Terry Cook, within the national community.

Terry Cook proposes that the dynamic records of the postmodern and electronic age, will require that

Preservation will ... no longer focus on repairing, conserving, and safeguarding the physical medium that was the record, but instead concentrate on continually migrating or emulating the concepts and interrelationships that now define virtual records and virtual fonds to new software programmes. (Of course traditional repair and conservation will continue for the documentary legacy of past centuries.)⁸¹

⁷⁸ Sue McKemmish, Barbara Reed and Michael Piggott, “The Archives,” in, *Archives: Recordkeeping in Society*, Topics in Australasian Library and Information Studies No. 24, eds. Sue McKemmish, Michael Piggott, Barbara Reed and Frank Upward (Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, 2005).

⁷⁹ Harris, *Exploring Archives*,” 46-52.

⁸⁰ Canadian Council of Archives, *Basic Conservation of Archival Materials*.

⁸¹ Terry Cook, “Archival Science and Postmodernism: New Formulations for Old Concepts,” *Archival Science* 1 (2001): 23.

The “traditional repair and conservation” of this last sentence is the dominant archival preservation model, focused on the physical matter. In this model, evidence of recordkeeping systems can be discarded and replaced by “archival” file folders and boxes in the name of preservation and of extending the life of the substrates. It is not clear why this “traditional repair and conservation” model should suffice for *any* records if the goal has shifted to preservation of “the concepts and interrelationships that now define ... records and ... fonds.”⁸²

Chapter Summary: Materiality and Archival Practice

Terry Cook and Joan Schwartz argue that the script for the performance of archival practice springs not only from understandings of archival theory, but also from ritualized norms based on generations of past practices, and that the effects of these practices – of these “badges of professional identity” – have largely been unchallenged within the profession in spite of their profound role in shaping societal memory.⁸³ They suggest that this kind of archival performance developed because the “primary audience

⁸² The term “conservation,” rather than “preservation,” appears both in the title of the Canadian Council of Archives manual and in the quotation from Cook. Although archival sources often claim their definitions of preservation to encompass “conservation” (and usually limit conservation to restoration-type treatments), in practice the terms are used interchangeably or contradictorily. I have limited myself to using the term “preservation” only as defined in the archival literature. Some of the terminological preferences may be regional. The few Canadian archives large enough to employ specialists tend to employ conservators trained to work in a broad range of potential heritage contexts, prepared to fill preservation management gaps as required, and who may not even be aware of how narrowly their scope of responsibility is perceived in the archival literature. Thus professional misunderstanding or gaps may be larger in theory than in practice within these archives, although the absence of a national discussion of preservation theory and practice and acknowledgement of these differences reinforces isolation of the handful of conservators specializing in preservation of archival records across the country.

⁸³ Terry Cook and Joan Schwartz. “Archives, Records, and Power: From (Postmodern) Theory to (Archival) Performance.” *Archival Science* 2 (2002): 173, 175. A study of the application of appraisal theory to archival practice in the United Kingdom has indicated that most repositories claimed not to be influenced by archival theory; see Caroline Williams, “Studying Reality: The Application of Theory in an Aspect of UK Practice,” *Archivaria* 62 (Fall 2006): 77-101.

during the formative years of the profession expected an objective, neutral archive as the basis for objective, scientific, fact-based history then being written.”⁸⁴ Now, the scholarly audience of archives is increasingly multi-disciplinary and no longer presumes neutrality of archives. Elizabeth Kaplan suggests archives are themselves a form of representation “of people, of cultures, of events, and ultimately of history and of memory,”⁸⁵ and challenges archivists to respond to the postmodern environment by critically engaging the profession and its practice.⁸⁶

In her article “Archival Representation,” Elizabeth Yakel includes a wide range of archival activities within the scope of ever-evolving “archival representation.”⁸⁷ This idea provides a useful framework for highlighting the physical and intellectual mediations performed in the course of archival practice and their (potential) effects on the materiality of records and on their initial and enduring archival value. The extent of records’ reliability as evidence is contingent on the editor’s/ archivist’s/ creator’s conscious or unconscious choices of what to reveal about the records, on how they have shaped the records through their own mediations, and on their understandings of all the previous mediations and re-shapings of the records. Each archival practice, however routine, shapes records and what can be known about records.

These ideas of performance and representation are apparent in the archival practices described in this chapter. Archivists identify records which they feel effectively

⁸⁴ Cook and Schwartz, *ibid.*, 175. See also Joan Schwartz and Terry Cook. “Archives, Records, and Power: The Making of Modern Memory.” *Archival Science* 2 (2002): 1-19; and Eric Ketelaar, “Tacit Narratives: The Meaning of Archives,” *Archival Science* 1 (2001): 131-141.

⁸⁵ Elisabeth Kaplan, “‘Many Paths to Partial Truths’: Archives, Anthropology, and the Power of Representation,” *Archival Science* 2 (2002): 211.

⁸⁶ *Ibid.*, 218-219.

⁸⁷ Elizabeth Yakel, “Archival Representation,” *Archival Science* 3 (2003): 1-25. Aspects of this theme are also developed in Heather McNeill, “Picking Our Text: Archival Description, Authenticity, and the Archivist as Editor,” *American Archivist* 68 (Fall/Winter 2005): 264-278.

represent (serve as evidence of) their creators' activities, and which fit within the institutional mandate. The appraisal and selection will be shaped by conceptions of what records can *be* and what they can be valued *for*, and by what can be physically accommodated by the institution. The archives' decisions regarding acquisition of potential donations and transfers may or may not be represented in its own internal administrative documentation, which may or may not be available to researchers. The selected records are physically relocated and arranged (and often re-arranged) to fit within the institutional level of adherence to accepted (and sometimes standardized) stewardship ideals for storage and access, superseding the previous physical arrangements. The physical interrelationships between records may be altered through separation of pages, separation of differing media, flattening, and similar "minor" interventions in the name of preservation, to say nothing of their separation from their original contexts in file rooms, offices, or homes, or from their relationships with other records in information systems (since the vast majority of bureaucratic modern records are destroyed as non-archival). Records are described in standardized written formats which give limited and inconsistent attention to materiality, undermining its significance to understanding records. While descriptions are intended to provide context for the researcher, they are not designed to document or reveal these mediations. Indeed, their very standardized and professionalized formats and standards implicitly deny that any mediations occurred. Surrogates for records, such as microfilmed or digital images, may be generated for dissemination outside the archives, and sometimes for consultation within the archives in lieu of the original records (preservation from access), with little acknowledgement of the limitations of what can be reliably conveyed about the

materiality of the source records through the surrogate versions. These mediations or interventions of standard archives practice profoundly shape access to, and understanding of, archival records.

Are current archival practices effective, then, in preserving and providing access to the archival value of records? The answer must be “no.” If the goal were still merely the preservation of information “content,” then the written and image content of individual items would not be considered to be altered unduly by these many interventions, and thus the records could be said to be preserved. While archivists on the whole have been slow to adjust from a primarily positivist to a primarily postmodern world-view, progressive archival theory, however, always gave primary attention to the contexts of creation and use of records. If context and structure are as important as content, and if metadata is as important as data, then archival practices are clearly not effective for preserving these very aspects of records which contribute so significantly to their archival value. If the contribution of materiality to archival value is not recognized and preserved, access to this aspect of the records cannot be effectively supported. Archival preservation theory has not developed in conjunction with appraisal theory, so current archival practices appear to be based on outdated paradigms that, at best, ignore the relationship between materiality and archival value, and at worst, actively (if inadvertently) obstruct, diminish, or destroy qualities meant to define archival value.

CONCLUSION:

RECONNECTING MIND AND MATTER IN ARCHIVAL PRACTICE

This thesis has argued that the materiality of archival records goes beyond physical form or material composition to include connections with the non-material processes which have shaped records, such as their relationships and associations with people, events, places of origin and other objects. As such, they are historical evidence of actions arising from within particular contexts, and they also remain participants in present human activity, acting as sensory connections to past human activity. Archivists and archives' users can develop skills to recognize and interpret meaning from beyond surface text or image in order to more fully understand the societal context which produced records (or representations of records), and to critically consider how different representations of records shape both the questions that can be asked of records and the stories the records can tell.

In "traditional" archival theory, the materiality of records has usually been assumed to be incidental to, and largely disconnected from, their "intellectual" or "information" value, but over the last three decades archival theory has been re-oriented around the concept of records as evidence of the dynamic contextual milieu of their creation. This thesis has shown how this contextualist shift in understanding records supports an increased and overt acknowledgement of materiality as integral to their archival value: materiality is integral to the context, content and structure which together

define records as records, and records as evidence. Materiality provides unique physical and sensory information about records' context of creation and ongoing use, as well as information about the written, image or aural content conveyed by the records.

This thesis has also outlined the inadequacy of current archival practice for addressing and protecting the evidential possibilities within records' materiality, since these practices have not developed to fully reflect the contextualist perspective and to support access to, or preservation of, materiality as part of the preservation of archival value. If only content is conceived to carry value, then metadata and meaning embedded in the materiality of records will not routinely be appraised, documented, or considered in other archival functions or management decisions. Methodologies cited as best practices in mainstream archival preservation literature are object-oriented rather than context-oriented: they are focussed on managing the longevity of the individual material components of records without consideration of the relationship between materiality and archival value. By attempting to manage matter separately from the mind behind their creation, both these relationships and the evidential possibilities of records' materiality and (by extension) their archival value, is at risk of loss.

While this thesis has provided an overview of these issues, a more thorough discussion of the development and evolution of archival theory and practice, exploration of examples from a wider variety of media and larger volumes of records, and development and testing of new practices are beyond the scope of this project. However, these limitations may be addressed through future research regarding how mind and matter might be reconnected and integrated more effectively in archival practice. Some suggestions for such directions are described below, and would ideally be developed in

conjunction with specialists in each area of archival practice, including archives' users, and applied to representative scenarios and records to ensure the viability of the new practices.

The first step in reconnecting mind and matter would be to develop greater awareness of materiality – to develop “material literacy,” akin to media literacy or visual literacy skills – among both archivists and users of archives.¹ Awareness of the range of communication pathways present in records – including touch, sound and smell – opens both archivists and users to different ways of identifying, experiencing and interpreting evidence in records and in representations of records. Since Western business and education cultures favour reading/writing presentations, it is not surprising that archival practice considers textual records and text-oriented tools such as *Rules for Archival Description* as the norm, even though text-oriented, reading/writing-based access services and tools clearly do not serve all members of society, or all media within archives, equally well. Archivists can better serve a wider variety of clients and research interests by developing access tools which address a wider variety of ways of knowing (learning behaviours) and actively highlight the many ways in which records can perform their communications functions. Reading records more deeply and more broadly increases the possibilities of telling richer stories and engaging wider audiences with the same limited archival resources.

¹ Yakel and Deborah A. Torres identify three dimensions of knowledge needed for effective use of primary sources: “archival intelligence,” “domain knowledge,” and “artifactual literacy.” Although they concentrate on “archival intelligence” and provide only a brief definition of “artifactual intelligence,” their work suggests the importance of materiality to the understanding of primary sources. Elizabeth Yakel and Deborah A. Torres, “AI: Archival Intelligence and User Expertise,” *American Archivist* 66 (Spring/Summer 2003): 51-78.

Once materiality is recognized as an integral and valuable aspect of both mind and matter, it can be purposefully managed and preserved. If archives strive to preserve and to provide access to the archival value (mind) of records (context, content and structure), rather than just to their surface matter or content, then these goals must inform each archival function. Additionally, the mechanisms for managing the preservation of records must be practical for the huge volumes of modern records, especially for born-digital computer records. While the examples chosen for this thesis demonstrate the depth and breadth of evidence available through the materiality of records, and the potential effects of archival practice on materiality, they do not demonstrate the magnitude of the preservation challenges faced by archives which need to appraise, describe and preserve thousands of linear metres of records each year, or their electronic “equivalents” in thousands of gigabytes.

Macroappraisal of archival records is designed to assess large volumes of records to enable selection of those with the highest societal value, and therefore the most archival value.² The functional analysis step could be designed to explicitly consider and document phenomena related to materiality, such as patterns in use of record-making and recordkeeping materials (paper, binders, file folders); patterns in use of record-making equipment (e.g. computer software, printers and plotters, typewriters, mimeographs) present at the site and when they were used; patterns of storage locations and furnishings within an organization; procedures for record-making and recordkeeping and use of records within the organization, as well as for tracking use of records within the

² Generally, between one and five percent of organizational records are retained because of their archival value. This thesis does not question the need for selection and destruction of records in the normal course of their management, but advocates for active consideration of materiality in these decisions.

organization. These patterns may provide further contextual insight regarding the records' evolving status and functions over time, and might be recorded using techniques such as oral accounts, or videotaped tours of the worksite, in addition to written accounts. Even if the original records are reformatted, or are not retained, these patterns can be preserved through this documentation.

Context is critical to the archival value of records, and is equally critical to managing archival records in ways that preserve that value for continued access. Centralized documentation files for records could trace an archives' interactions with donors, creators, and users, as well as the archives' physical and intellectual interventions or mediations (before and after acquisition) regardless of which functional area or workgroup was responsible for the action. These "history of the record" files – external metadata about the records – might provide "snapshots" of various states of the records, such as the appraisal reports incorporating the archivist's research into the records' contexts and the resulting recommendation of which records to acquire and why, the results of condition surveys or photographs of the records at all points in their "lives," as well as indications of alterations made by the archives (e.g. pagination, foldering and re-foldering, framing and un-framing, re-arranging), or of changing understandings of records (e.g. descriptions and changes in them over time, uses in publications and public programs, when microfilmed or digitized).³ Staff throughout the archives could refer to

³ Examination and documentation of physical evidence is highly valued in the museum community and is an ethical requirement in the conservation profession. As a rough measure of importance, documentation has more space in the *Code of Ethics of the American Institute for the Conservation of Historic and Artistic Works* than any other concept, including treatment. The purpose of conservation documentation is to enhance transparency, providing the context for the decisions that were made, as well as describing the specific alterations, to enable retrieval of as much contextual information as possible to aid in future interpretation and treatment of the

these files to ensure that their plans will have minimum negative effects on the archival value of the records as previously assessed and described in the documentation. Rather than ignoring, denying or hiding the potential significance of these evolving histories of the records, or aspects of records, archives can make evident and transparent their practical considerations in managing records by making their policies and procedures publicly available and by cross-referencing them in the documentation and in descriptions and the related tools prepared for, and used by, researchers. Management of archival value would be better informed within all functions, and the archives' decisions and actions would be more transparent and accountable to stakeholders, including researchers.⁴

The critical connection between archival appraisal, documentation and preservation is clear for electronic records, and can serve as a starting point for developing context-oriented preservation goals and strategies directly related to archival value for all media. Object-oriented descriptive tools, such as *RAD*, can be enhanced

records. Available at <http://aic.stanford.edu/about/coredocs/coe/index.html> (accessed February 1, 2009).

⁴ Richard Cox suggests that "A researcher might be just as much or more interested in *how* the records got to the archives than in the records themselves. And, as an extension of the idea of provenance, this is really an intrinsic part of the evidence." Richard Cox, "The End of Collecting," *No Innocent Deposits: Forming Archives by Rethinking Appraisal*, (Lanham MD and Oxford: Scarecrow Press, 2004), 42. Archivists who have published concerns that archivists' actions and alterations are inadequately documented include Terry Cook, "Fashionable Nonsense or Professional Rebirth: Postmodernism and the Practice of Archives," *Archivaria* 51 (Spring, 2001): 32-34; Terry Cook, "Archival Science and Postmodernism: New Formulations for Old Concepts," *Archival Science* 1 (2001): 12; David Bearman, *Archival Methods*, Archives and Museum Informatics Technical Report 3, no. 1 (Pittsburg: Archives and Museum Informatics, 1989); Brien Brothman, "Orders of Value: Probing the Theoretical Terms of Archival Practice," *Archivaria* 32 (Summer 1991): 86; and Tom Nesmith, "Still Fuzzy, But More Accurate: Some Thoughts of the 'Ghosts' of Archival Theory," *Archivaria* 47 (Spring 1999): 146.

with metadata “crosswalks,”⁵ for example, to more comprehensive information in collections management databases for accurate representations of materials and technologies, condition, and preservation-related activities carried out over time, in order to provide additional contextual information to researchers and to support management of the records’ materiality.⁶ Descriptions could also include links to documents created by the archives to contextualize and make evident archival mediations by explaining, for instance, the history of changes in the archives’ policies, procedures and practices which might have a bearing of what records might be present in the archives or why the records look the way they do.⁷ Other documents or external links might provide the histories of particular record-making and recordkeeping technologies to place disparate records into a local, national or international technological context.

To contribute effectively toward preserving mind, as well as matter, archival preservation practice must move beyond passively following generic “best practices” or “standards,” especially when these practices could potentially compromise context, and, by extension, archival value. A risk assessment-based approach would actively consider risk scenarios, probabilities, and consequences at all stages of managing records, in order to allocate resources where they will have the greatest benefits for the preservation of archival value – for mind as well as matter. Strategies for managing the identified risks

⁵ “Crosswalks” between metadata standards enable linkages through common elements. For instance the Physical Description field in a *RAD* description could include a link to a database with more technical information.

⁶ In a paper initially delivered to archivists, curator Steven Lubar notes that metadata “is the key to understanding the archives. Foucault is famous for arguing for the centrality of discourse, not the centrality of things and artifacts; and it is in metadata that we find discourse, and it is in discourse that we find culture.” Steven Lubar, “Information Culture and the Archival Record,” *American Archivist* 62 (Spring 1999): 20.

⁷ Tom Nesmith has described such essays to complement existing descriptive systems in Tom Nesmith, “Reopening Archives: Bringing New Contextualities into Archival Theory and Practice,” *Archivaria* 60 (Fall 2005): 271-274.

must be integrated throughout all archival functions, for instance, by using documentation to preserve metadata and to provide context for further decision-making.⁸ Strategies to manage the physically embodied evidence of records' creation, use and care may include surrogate representation, stabilization and repair, strategic storage environments, development of integrated policies and procedures, and staff and researcher training.

Archives can review policies of limiting access to original records to verify if risks of damage or theft truly outweigh the loss of materiality for researchers, or if these risks could be mitigated through stabilization of fragile records, or improved training and procedures for handling by staff and researchers, or improved security training for staff supervising research rooms. Where original records cannot be made available, archives could also offer "discovery" or "touch" collections of records with no archival value to simulate or contextualize the archival records' technologies. Those who have access only to an image of a record have access to significantly less materially manifested evidence than those who can use the original records. Nevertheless, the evidence lost in

⁸ David Bearman's analysis of transition points during which electronic records are most vulnerable to loss of their "record-ness" could be applied to non-electronic records; see David Bearman, "Moments of Risk: Identifying Threats to Electronic Records," *Archivaria* 62 (Spring 2006): 15-46. Approaches used in the wider heritage conservation field and which could be adapted to archival contexts include Robert Waller, *Cultural Property Risk Analysis Model: Development and Application to Preventive Conservation at the Canadian Museum of Nature*, Goteborg Studies in Conservation, Goteburg Acta Universitatis Gothoburensis 13 (Goteburg: Acta Universitatis Gothoburensis, 2003); and Jonathan Ashley-Smith, *Risk Assessment for Object Conservation* (Oxford: Butterworth Heinemann, 1999). Contrary to what has been implied in the archival preservation literature, conservators do not put matter ahead of mind: the "purpose of conservation is to study, record, retain and restore the *culturally significant qualities* of the cultural property as embodied in its physical and chemical nature, with the least possible intervention." The Canadian Association for Conservation of Cultural Property (CAC) and of the Canadian Association of Professional Conservators, *Code of Ethics and Guidance for Practice of the Canadian Association for Conservation of Cultural Property and of the Canadian Association of Professional Conservators*, 3d ed. (Ottawa: CAC and CACP, 2000), available at <http://www.cac-accr.ca/pdf/ecode.pdf> (accessed 3 February 2009). Emphasis added.

microfilming, digitization, or other imaging methods, can be at least partially restored through improved access tools for documentation and dissemination of records, for instance, by adding the capacity to zoom in on high-resolution images of records, or displaying the images next to versions enhanced to highlight or “restore” aspects of their materiality such as compensating for yellowed or faded images. Surrogate representations can thus be used as a strategy for enhancing access to, and documentation of, records’ materiality, as long as archives reveal both the context for creation of the representations and the limitations of the representations as an access or documentation or preservation tool.⁹ Outreach programming could actively draw attention to the mind behind materiality, and offer opportunities to increase sensitivity to why records, look, smell, feel and move the way they do.

Rethinking archival practice along the lines discussed above may not only reconnect matter with mind (or materiality with context of creation and use), but can also improve the metadata managed or created by archives, in order to enable more effective and transparent description and management of records. Additionally, if archives embrace a larger conceptual view of the definitions, functions, values, and uses of records, they can work more productively and collaboratively with other professionals in

⁹ The Library of Congress includes descriptions of the sources for digital images, and the technical set-ups and processing for each segment of their “digital collections. See for instance: <http://memory.loc.gov/ammem/arndthtml/build.html>; and <http://memory.loc.gov/ammem/doughtml/dougdig.html> (accessed 16 April 2008). Emulation is a strategy currently used for preservation of the “look and feel” of the “original” views of computer-generated documents. Although this research is driven by computer gaming, it has also been investigated for application to archival electronic records through projects such as CAMiLEON. See David Holdsworth and Paul Wheatly, “Emulation, Preservation, and Abstraction,” *RLG Diginews* 5 (August 15, 2001), available at <http://worldcat.org/arcviewer/1/OCC/2007/08/08/0000070511/viewer/files3149.html> (accessed 2 February 2009).

related areas of knowledge and memory, and build upon broader existing models for preservation of, and access to, the documentary and cultural record.

Hugh Taylor predicted that archives will work with cultural heritage organizations to “make leaps of the imagination from documents to the artifacts of ‘material culture,’ to art and (why not?) literature and theatre.”¹⁰ Archives are sites for access to records as sources for interpreting and understanding past activities and experiences, sites for enabling communications from past to present and from present to future, sites for preserving (even enhancing) our common humanity across time. If the context of records is critical to records’ archival value, then archives need to be stewards of all the aspects of records which assist members of society in understanding that functional context. Recognizing the co-existence of different kinds of evidence, and multiple pathways of acquiring knowledge from records, enhances the ability of archives to serve more effectively as institutions of social memory.¹¹

¹⁰ Hugh Taylor, “Recycling the Past: The Archivist in the Age of Ecology,” in *Imagining Archives: Essays and Reflection by Hugh A. Taylor*, Terry Cook and Gordon Dodds (Lanham, MD and Oxford: The Scarecrow Press, 2003), 207. Many smaller museums already include archival programs, and recently several larger institutions have amalgamated, or have begun to share structure or services with archives. For instance, the National Archives of Canada and National Library of Canada are now Library and Archives Canada; the Royal British Columbia Museum and the British Columbia Archives are now managed as a single Crown corporation; and the Provincial Archives, Museum and Gallery of Newfoundland all share space in one complex known as “The Rooms.”

¹¹ An interesting example of an inclusive organization for preservation of social memory is the Nelson Mandela Memory Programme; see the descriptions of the work of the Programme, and of the permanent exhibition – designed to include the crunching sound of gravel underfoot – at: <http://www.nelsonmandela.org/index.php/memory/index.php> (accessed 2 February 2009). A description of the Mandela Archive includes prison cells and historic sites associated with Mandela and songs and stories about him. Available at <http://media1.mweb.co.za/ommd/view.asp?pg=introduction> (accessed 12 March 2007).

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