3

Archival science and postmodernism: new formulations for old concepts

TERRY COOK
*University of Manitoba, 2138 Hubbard Crescent, Gloucester ON K1J 6L2, Canada.
E-mail: terry.cook@sympatico.ca*

Abstract. Process rather than product, becoming rather than being, dynamic rather than static, context rather than text, reflecting time and place rather than universal absolutes – these have become the postmodern watchwords for analyzing and understanding science, society, organizations, and business activity, among others. They should likewise become the watchwords for archival science in the new century, and thus the foundation for a new conceptual paradigm for the profession. Postmodernism is not the only reason for reformulating the main precepts of archival science. Significant changes in the purpose of archives as institutions and the nature of records are other factors which, combined with postmodern insights, form the basis of the new perception of archives as documents, institutions, and profession in society.

This essay explores the nature of postmodernism and archival science, and suggest links between the two. It outlines two broad changes in archival thinking that underpin the archival paradigm shift, before suggesting new formulations for most traditional archival concepts.

Keywords: archival science, governance, postmodernism, social memory

The role of archival science in a postmodernist world challenges archivists everywhere to rethink their discipline and practice.[1] A profession rooted in nineteenth-century positivism, let alone in earlier diplomatics, may now be adhering to concepts, and thus resulting strategies and methodologies, that are no longer viable in a postmodern and computerized world.[2] Even "archival

---

[1] While honoured to be invited by the editors of this journal to offer for this inaugural issue my views on the state of archival science, the short time-frame involved renders this paper a personal reflection rather than a sustained piece of original research. I have drawn on such research as I have previously done and as has appeared elsewhere, and indicated this in subsequent notes, from which sources much fuller citations can usually be found. The present work remains an essay on archival science and postmodernism; there is no pretense of having researched exhaustively all that has been written on the subject, even in the English language. I wish to thank Tim Cook of the National Archives of Canada for useful comments on this essay, as well as the helpful input from two anonymous reviewers for *Archival Science*; any errors and all interpretations remain my own.

[2] On positivism and archives, see Verne Harris, "Claiming Less, Delivering More: A Critique of Positivist Formulations on Archives in South Africa," *Archivaria* 44 (Fall 1997): 132–141; as well as, implicitly at least, all the sources by archivists writing about the postmodern revolution and its impact on the profession, many of which are outlined in note 13

science," as a term and a body of knowledge, raises conceptual problems, quite aside from the impact of postmodernism, that need clarification in the new realities in which we live and work. Do these changes amount to a paradigm shift, as the editors invited me to address, or is the profession merely adapting its principles, as it has before, to new media and new record-creating techniques? In this essay, I confirm my answer elsewhere that an archival paradigm shift is indeed occurring, and will grow in intensity in the new century to challenge how archivists think and thus how they do their work.[3]

At the heart of the new paradigm is a shift away from viewing records as static physical objects, and towards understanding them as dynamic virtual concepts; a shift away from looking at records as the passive products of human or administrative activity and towards considering records as active agents themselves in the formation of human and organizational memory; a shift equally away from seeing the context of records creation resting within stable hierarchical organizations to situating records within fluid horizontal networks of work-flow functionality. For archivists, the paradigm shift requires moving away from identifying themselves as passive guardians of an inherited legacy to celebrating their role in actively shaping collective (or social) memory. Stated another way, archival theoretical discourse is shifting from product to process, from structure to function, from archives to archiving, from the record to the recording context, from the "natural" residue or passive by-product of administrative activity to the consciously constructed and actively mediated "archivalisation" of social memory.[4]

---

below. Special attention is drawn to the thorough critique of positivist formulations of archival theory and archival science by Preben Mortensen, "The Place of Theory in Archival Practice," *Archivaria* 47 (Spring 1999): 1–26.

[3] See Terry Cook, "What is Past is Prologue: A History of Archival Ideas Since 1898, and the Future Paradigm Shift" *Archivaria* 43 (Spring 1997): 17–63 (a shorter, and less complete version is also published as "Interaction of Archival Theory and Practice Since the Publication of the Dutch Manual," *Archivum* (1997): 191–214); the essay was reprinted in P.J. Horsman, F.C.J. Ketelaar, and T.H.P.M. Thomassen (eds.), *Naar een nieuw paradigma in de archivistiek. Jaarboek 1999 Stichting Archiefpublicaties* ('s-Gravenhage 1999), 29–67. Both originated as a plenary address to the Thirteenth International Congress on Archives held in Beijing, China, in 1996. I used the "paradigm" term once before, in a precursor article almost two decades earlier, to suggest that renewed research and sustained scholarship by archivists into the history and context of records, as opposed to the professional focus then on methodological and technological issues, would allow archivists and, more importantly, users of archives to discover knowledge and humanist understanding in the sea of information in archival holdings; see Terry Cook, "From Information to Knowledge: An Intellectual Paradigm for Archives," *Archivaria* 19 (Winter 1984–1985): 28–49.

[4] On archivalisation and its exposition by Jacques Derrida in *Archive Fever*, see Eric Ketelaar, "Archivalisation and Archiving," *Archives and Manuscripts* 27 (May 1999): 54–61; and (without the term) Tom Nesmith, "Still Fuzzy, But More Accurate: Some Thoughts on the

In such a changing world, core archival principles will only be preserved by discarding many of their present interpretations, strategic implementations, and practical applications. It may at first seem contradictory to assert a paradigm shift while also suggesting that archivists should remain focused in their scholarly research and theoretical formulations on traditional core principles – those centred around the "provenance, *respect des fonds*, context, evolution, interrelationships, [and] order" of records.[5] Reference to "traditional core principles" does not sound like a radical paradigm shift! Yet the results from research by archivists concerning this traditional core are now so different from the assumptions that have dominated the profession during most of the past two centuries that I believe a paradigm shift is indeed occurring.

Thomas Kuhn articulated the idea of a paradigm shift in *The Structure of Scientific Revolutions* in 1962. He argued that radical changes occur in the interpretive framework for any scientific theory, which he called a paradigm shift, when answers to the research questions no longer explain sufficiently the phenomena being observed (in the archival case, recorded information and its creators) or when the practical methodologies based on the theory from such observation no longer work (as they certainly do not for many archival activities, and not only coping with electronic records). The questions and research focus, therefore, may remain "traditional in a paradigm shift;" the answers do not. And so it is with archives.

This essay will explore the nature of postmodernism and archival science, and suggest links between the two. It will then briefly outline two broad changes in archival thinking that underpin the archival paradigm shift, before suggesting new formulations for most traditional archival concepts. All three dimensions of this essay are different perspectives on the same changing paradigm of archival science.

Postmodernism and archival science

The postmodern mindset affects archives in two ways. We live in a postmodernist era of theoretical discussion, whether we like it or not. Starting in architectural analysis and evolving from post-Sartre French philosophy and literary criticism, postmodernism has grown to influence almost every discipline, from history to literature to psychoanalysis to anthropology, from

'Ghosts' " of Archival Theory," *Archivaria* 47 (Spring 1999): 136–150; as well as many of the sources in note 13 below on the postmodern archive. The fullest published analysis of Derrida by an archivist is Brien Brothman, "Declining Derrida: Integrity, Tensegrity, and the Preservation of Archives from deconstruction," *Archivaria* 48 (Fall 1999): 64–88.

5 Cook, "From Information to Knowledge: An Intellectual Paradigm for Archives," 49.

cartographic analysis to film, photograph, and art studies, to say nothing of influencing feminist and Marxist theory that in turn have changed many disciplines. Archival educator Terry Eastwood has observed that "one must understand the political, economic, social and cultural milieu of any given society to understand its archives," adding that "the ideas held at any given time about archives are surely but a reflection of wider currents in intellectual history."[6] Following this logic, the dominant intellectual trend of this age is postmodernism, and it will thus necessarily affect archives. Archivists had best begin to speculate how and why, and change their formulations of archival science accordingly.

The second, and more direct, impact of postmodernism rests on its speculation about the nature of historical and other texts. The greatest living postmodern thinker, Jacques Derrida, published *Archive Fever* in 1995/96 to address explicitly the archive and its significance in society, and a wave of studies have followed in Derrida's wake.[7] Postmodernism is thus concerned about the creation and nature of records and their designation, survival, and preservation as archives. Many postmodernist commentators also explicitly address archives as institutions and their role in the formation of the official or sanctioned memory of the state. It is important to distinguish here the impact of postmodernism and of the computer revolution on records, and ultimately on archival science. Derrida would certainly say that the more radical questions now being asked about "the archive" under the stimulus of electronic records and virtual environments are equally applicable to the entire tradition of Western writing and record-making: the instability of text and of text-author relations, or the ghostly shadow of the trace of past activity, is perhaps more apparent with electronic media, but in fact has been a persistent reality since language and writing came into use.

---

[6] Terence M. Eastwood, "Reflections on the Development of Archives in Canada and Australia," in Sue McKemmish and Frank Upward, eds., *Archival Documents: Providing Accountability Through Recordkeeping* (Melbourne, 1993), 27. See also Barbara Craig, "Outward Visions, Inward Glance: Archives History and Professional Identity," *Archival Issues: Journal of the Midwest Archives Conference* 17 (1992): 121. The fullest argument for archivists researching, writing, and reading and knowing their own history is Richard J. Cox, "On the Value of Archival History in the United States" (originally 1988), in Richard J. Cox, *American Archival Analysis: The Recent Development of the Archival Profession in the United States* (Metuchen, N.J., 1990), 182–200. See also the arguments (and examples) throughout Cook, "What is Past is Prologue: A History of Archival Ideas Since 1898."

[7] Jacques Derrida, *Archives Fever: A Freudian Impression* (Chicago and London, 1996, originally in French in 1995, from 1994 lectures). Two issues of the journal, *History of the Human Sciences*, 11 (November 1998) and 12 (February 1999), are devoted to essays by almost twenty scholars on "The Archive." None are archivists, and very few writings by archivists about archives are cited.

The problem with postmodernism is of course one of definition. It affects so many aspects of society today that it can mean almost anything depending from which perspective and discipline a particular commentator speaks. The postmodernist field is filled with paradoxes and ironies, from Michel Foucault anchoring texts in socio-political-historical power realities in order to understand systems of organized knowledge and their discursive hegemonies, to Jacques Derrida deconstructing or dismantling those very same systems, indeed the very language on which they rest. Information theory under the postmodernist umbrella is complicated by encompassing philosophy, linguistics, semiotics, structuralism, hermeneutics, and iconology, as well as Marxism and feminism. But at the risk of gross simplification, here are some generalized postmodernist formulations, emphasizing of course for this journal their implications for archives, and thus their impact on archival science.

The postmodern distrusts and rebels against the modern. The notions of universal truth or objective knowledge based on the principles of scientific rationalism from the Enlightenment, or from employing the scientific method or classic textual criticism, are dismissed as chimeras. Using remorseless logical analysis, postmodernists reveal the illogic of allegedly rational texts. The context behind the text, the power relationships shaping the documentary heritage, and indeed the document's structure, resident information system, and narrative conventions are more important than the objective thing itself or its content. Fact in texts cannot be separated from their ongoing and past interpretation, nor author from subject or audience, nor author from authoring, nor authoring from context. Nothing is neutral. Nothing is impartial. Nothing is objective. Everything is shaped, presented, represented, re-presented, symbolized, signified, signed, constructed by the speaker, photographer, writer, for a set purpose. No text is a mere innocent by-product of action as Jenkinson claimed, but rather a consciously constructed product, although that consciousness may be so transformed into semi- or even unconscious patterns of social behaviour, organization process, and information presentation that the link to external realities and power relationships is quite hidden. Texts (which include images) are all a form of narration more concerned with building consistency and harmony for the author, enhancing position and ego, conforming to organization norms and rhetorical discourse patterns, than they are evidence of acts and facts, or juridical or legal frameworks. And there is not one narrative in a series or collection of records, but many narratives, many stories, serving many purposes for many audiences, across time and space.

The postmodernist tone is one of ironical doubt, of trusting nothing at face value, of always looking behind the surface, of upsetting conventional

wisdom. Postmodernists try to de-naturalize what society unquestionably assumes is natural, what it has for generations, perhaps centuries, accepted as normal, natural, rational, proven – simply the way things are. The post-modernist takes such "natural" phenomenon – whether patriarchy, capitalism, the Western canon of great literature, or archives – and declares them to be "unnatural," or "cultural," or "constructed," or "man-made" (using "man" advisedly), and in need of deeper research and analysis.[8]

Some of these generalizations about postmodernism are supported from a growing literature on the history of archives – sadly usually not written by archivists. Jacques LeGoff notes (in translation) that "the document is not objective, innocent raw material but expresses past [or present] society's power over memory and over the future: the document is what remains." What is true of each document is true of archives collectively. By no coincidence, the first archives were those connected to power in ancient Mesopotamia, Egypt, China, and pre-Columbian America – whether the power centres of religion, temples, and priests; of business, trade, and accounting; or of kings, emperors, and pharaohs. The capital city in these and later civilizations becomes, in Le Goff's words, "the center of a politics of memory" where "the king himself deploys, on the whole terrain over which he holds sway, a program of remembering of which he is the center." First the creation and then the control of memory leads to the control of history, thus mythology, ultimately power.[9] Feminist scholars, such as Gerda Lerner in her pioneering works, convincingly demonstrate that such power behind the very first documents, archives, memory, was remorselessly and intentionally patriarchal: women were de-legitimized by the archival process in the ancient world, a process that has continued well into this century.[10] Many examples are now

---

[8] There seems no point to citing here a shelf-full of postmodernist books. However, in addition to Foucault's own analysis and historical methodology, and Derrida's seminal volume, my understanding of postmodernism owes much to an early exposure to the work of the Canadian scholar, Linda Hutcheon: *The Politics of Postmodernism* (London and New York, 1989), and *A Poetics of Postmodernism: History, Theory, Fiction* (New York and London, 1988); and of course to the writings of those few archivists (happily growing in number) who have explored rather than ignored postmodernism, as outlined in note 13 below.

[9] Jacques Le Goff, *History and Memory*, translated by Steven Rendall and Elizabeth Claman (New York, 1992), pp. xvi–xvii, 59–60, and *passim*. Interestingly enough, a key challenger of archival orthodoxy and a leading advocate of virtual archives, and of cross-institutional perspectives, entitled her first major exposition in a manner that is very reminiscent of Le Goff's themes: see Helen Willa Samuels, "Who Controls the Past," *American Archivist* 49 (Spring 1986): 109–124.

[10] Feminist scholars are keenly aware of the ways that systems of language, writing, information recording, and the preserving of such information once recorded, are social- and power-based, not neutral, both now and across past millennia. For example, see Gerda Lerner, *The Creation of Patriarchy* (New York and Oxford, 1986), pp. 6–7, 57, 151, 200, and

coming to light of archives collected – and later weeded, reconstructed, even destroyed – not to keep the best juridical evidence of legal and business transactions, but to serve historical and sacral/symbolic purposes, but only for those figures and events judged worthy of celebrating, or memorializing, within the context of their time.[11] But who is worthy? And who determines worthiness? According to what values? And what happens when the values and the determiner change over time? And who is deemed unworthy and forgotten, and why? Historical examples, in summary, suggest that there is nothing neutral, objective, or "natural" about this process of remembering and forgetting.

Ultimately, postmodernists have a deep ambivalence about the document or record. While doubting the truth of history, while seeing archives as mere traces of now missing or destroyed universes of records and activity, while viewing records themselves as trick mirrors distorting facts and past realities in favour of the narrative purpose of the author/audience, they nevertheless often resort, paradoxically, to history and historical analyses. Michel Foucault has done important historical studies of mental illness, criminology, and human sexuality, for example. One postmodernist argues, displaying this very paradoxical ambivalence,

> that all documents or artifacts used by historians are not neutral evidence for reconstructing phenomena which are assumed to have some independent existence outside them. All documents possess information and the very way in which they do so is itself a historical fact that limits the documentary conception of historical knowledge. This is the kind of insight that has led to a semiotics of history, for documents become signs of events which the historian transmutes into facts. They are also, of course, signs within already semiotically constructed contexts, themselves dependent upon institutions (if they are official records) or individuals (if they are eye-witness accounts) ... the lesson here is

passim; and Riane Eisler, *The Chalice & The Blade* (San Francisco, 1987), pp. 71–73, 91–93. Lerner's more recent study, *The Creation of Feminist Consciousness: From the Middle Ages to Eighteen-seventy* (New York and Oxford, 1993), carefully details the systemic exclusion of women from history and archives, and the attempts starting from the late nineteenth century of women to correct this by creating women's archives: see especially chapter 11, "The Search for Women's History." See also Bonnie G. Smith, *The Gender of History: Men, Women, and Historical Practice* (Cambridge MA and London, 1998).

[11] See, for example, Patrick J. Geary, *Phantoms of Remembrance: Memory and Oblivion at the End of the First Millennium* (Princeton, 1994), pp. 86–87, 177, and especially chapter 3: "Archival Memory and the Destruction of the Past" and *passim*. For other examples and numerous citations, see Cook, "What is Past is Prologue," 18, 50. We have the painful case in our own time of deliberate records destruction in Kosovo and Bosnia to efface memory and marginalize peoples.

that the past once existed, but that our knowledge of it is semiotically transmitted.[12]

The record is a sign, a signifier, a mediated and ever-changing construction, not some empty vessel into which acts and facts are poured. The positivist model based on the integrity of a scientific resurrection of facts from the past and the record as an impartial, innocent by-product of action has been utterly discredited. And some archivists are now starting to explore the implications of these postmodern ideas for their profession.[13] Postmodernism is not neces-

---

[12] Hutcheon, *Poetics of Postmodernism*, 122.

[13] The first mention of postmodernism (at least in English) by an archivist in an article title was by Terry Cook, in "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): 300–329, upon which much of the previous few paragraphs is dependent. The themes were continued in his "What is Past is Prologue," already cited. Two pioneering postmodern archivists before Cook were also Canadian, Brien Brothman and Richard Brown. Among other works, see Brien Brothman, "Orders of Value: Probing the Theoretical Terms of Archival Practice," *Archivaria* 32 (Summer 1991): 78–100; "The Limits of Limits: Derridean Deconstruction and the Archival Institution," *Archivaria* 36 (Autumn 1993): 205–220; and his probing review of Jacques Derrida's *Archive Fever*, in *Archivaria* 43 (Spring 1997): 189–192, which ideas are very much extended in his "Declining Derrida: Integrity, Tensegrity, and the Preservation of Archives from deconstruction," *Archivaria* 48 (already cited); and Richard Brown, "The Value of 'Narrativity' in the Appraisal of Historical Documents: Foundation for a Theory of Archival Hermeneutics," *Archivaria* 32 (Summer 1991): 152–156; "Records Acquisition Strategy and Its Theoretical Foundation: The Case for a Concept of Archival Hermeneutics," *Archivaria* 33 (Winter 1991–1992): 34–56; and "Death of a Renaissance Record-Keeper: The Murder of Tomasso da Tortona in Ferrara, 1385," *Archivaria* 44 (Fall 1997): 1–43. In addition to the incisive articles by Preben Mortensen, "The Place of Theory in Archival Practice," and Tom Nesmith, "Still Fuzzy, But More Accurate: Some Thoughts on the 'Ghosts'" of Archival Theory," both cited above from *Archivaria* 47 (Spring 1999), other Canadian archivists reflecting postmodernist influences, at least in published form in English, include Bernadine Dodge, "Places Apart: Archives in Dissolving Space and Time," *Archivaria* 44 (Fall 1997): 118–131; Theresa Rowattt, "The Records and the Repository as a Cultural Form of Expression," *Archivaria* 36 (Autumn 1993): 198–204; Joan Schwartz, "We make our tools and our tools make us": Lessons from Photographs for the Practice, Politics, and Poetics of Diplomatics," *Archivaria* 40 (Fall 1995): 40–74; and Lilly Koltun, "The Promise and Threat of Digital Options in an Archival Age," *Archivaria* 47 (Spring 1999): 114–135. Non-Canadian postmodern archivists include Eric Ketelaar, "Archivalisation and Archiving," and Verne Harris, "Claiming Less, Delivering More: A Critique of Positivist Formulations on Archives in South Africa," both already cited, as well as Verne Harris' complementary "Redefining Archives in South Africa: Public Archives and Society in Transition, 1990–1996, *Archivaria* 42 (Fall 1996): 6–27, and implicitly at least some of the writing of Americans Margaret Hedstrom, Richard Cox, and James O'Toole, and Australians Frank Upward, Sue McKemmish, and Barbara Reed. Planned symposia and publications scheduled for the next year to investigate archives and the construction of social memory will do much to expand the numbers and nationalities of archivists involved in considering the implications of postmodernism for their profession.

sarily antithetical to archival science, but a new kind of archival science – or paradigm – will be necessary to bring about a happy marriage of the two. Let us turn first to archival science.

What is "archival science"? At one level, the term and its meaning are invisible or illusive; at another, they are sometimes formulated in ways quite incompatible with postmodern thinking. Both these issues should concern archivists. Eric Ketelaar refers to "the Tower of Babel of the archivists" across countries, languages, and national archival traditions, and across divisive deeper archival "cultures," and notes that "any discourse presupposes understanding and comprehension." Part of that understanding requires bringing these differences to light, rather than denying them or seeking to impose a universality that does not exist, except maybe in some traditional theorists' minds.[14] In no area is this more necessary than in "archival science," and thus another good reason for the existence of this new journal!

To North American and Australian archivists, the term "archival science" is so foreign that it finds no place in their extensive published glossaries, and, until very recently and under the impact of imported European ideas, rarely has been mentioned in their professional discourse.[15] Conversely, for many European archivists, "archival science" is deeply ingrained as part of their professional mindset. For example, three leading archivists from three European countries, who have used "archival science" in the title of recent articles designed to explore aspects of the meaning of archival science, do not really define the term, or even explain it, but simply assume that their readers will know what they mean.[16] The term sometimes seem to encompass in such

---

[14] Eric Ketelaar, "The Difference Best Postponed? Cultures and Comparative Archival Science," *Archivaria* 44 (Fall 1997): 142–148, reprinted in Horsman, Ketelaar, and Thomassen (eds.), *Naar een nieuw paradigma in de archivistiek. Jaarboek 1999 Stichting Archiefpublicaties*, 21–27.

[15] See Lewis J. Bellardo and Lynn Lady Bellardo, *A Glossary for Archivists, Manuscript Curators, and Records Managers*, Society of American Archivists (Chicago, 1992); Glenda Acland, "Glossary," in Judith Ellis, ed., *Keeping Archives*, second edition (Port Melbourne, 1993), 459–481. While these are glossaries directed to practitioners, they reflect input from theorists and reflect the state of professional literature at the time. "Archival science" has recently gained greater acceptance as a term in North America based on wider availability and appreciation of European archival literature in the past decade, and the influence of Luciana Duranti, a Canadian archival educator from Europe, and some of her students. Nevertheless, for many, the term still strikes a discordant note.

[16] Of course, the articles as a whole do implicitly explain aspects of "archival science," for that is why they were written, but they do not explicitly explain the term itself or what aspects of archives it encompasses. See Paola Carrucci (Italy), "Archival Science Today. Principles, Methods and Results," in Oddo Bucci. ed., *Archival Science on the Threshold of the Year 2000* (Macerata, 1992): 55–68; Bruno Delmas (France), "What is the Status of Archival Science in France Today," *The Concept of Record: Report from the Second Stockholm Conference on Archival Science and the Concept of Record 30–31 May 1996* (Riksarkivet, Sweden,

writing, to this untrained North American eye, all the professional knowledge that forms the intellectual discipline of archives, including archival theory, archival history, archival strategy, archival methodology, even diplomatics or aspects of records management. But archival science seems most often equated by these writers with what North Americans think of as "archival theory," and, more specifically, with concepts concerning the arrangement and description of archives in order to protect their provenance or contextual integrity.

For Oddo Bucci, a European archival theorist who does define archival science very clearly, "archival knowledge" and "archival science" are not the same thing. Archival knowledge is the articulated form of daily practice for various times, places, uses, media, and "values" of archives, whereas archival science is "the conceptual and systematic construction" of archival knowledge into disciplinary integrity. Bucci continues:

> ... in performing its task of theoretical elaboration, archival science works to channel, to structure, to organize systematically, and to establish order in the subject matter of archival knowledge. The latter paves the way to archival science but is not yet in itself archival science. The terms are not, however, destined to remain separate without ever meeting. A dialectical relationship runs between the two. It is necessary for archival knowledge to transform itself constantly into archival science, just as it is necessary for archival science to elaborate archival knowledge within itself.

This dialectic means that archival science is neither universal nor immutable. While traditional archival science "gave the discipline its empirical slant, constructed it as a descriptive science, and applied to it the imperative of positivist historiography, which aimed at the accumulation of facts rather than at the elaboration of concepts," such positivist historiography and fact-based empiricism have been discredited by postmodernism. Recognizing this, Bucci asserts that new societal changes "undermine habits and

1998): 27–35; and Eric Ketelaar (Netherlands), "The Difference Best Postponed? Cultures and Comparative Archival Science," already cited. I advance these examples only to be suggestive, from three well-known writers whose works were on my bookshelf; in the time available to preapre this article, I have done no systematic research into the various uses of "archival science" by European writers. Bruno Delmas of France might be mentioned as the father of the distinction between practical, descriptive and functional archival science (and maybe Angelika Menne-Haritz of Germany as its stepmother). The most recent overview of European archival science, that both analyzes the concept and traces its development over time, is Theo Thomassen, "The Development of Archival Science and its European Dimension," *The Archivist and the Archival Science* (Landsarkivets i Lund Skriftserie 7) (Lund 1999): 75–83.

norms of conduct, involving a break with principles that have long governed the processes whereby archival records are created, transmitted, conserved and exploited." He concludes "that radical innovations in archival practice are becoming increasingly incompatible with the continuance of a doctrine seeking to remain enclosed within the bulwarks of its traditional principles" and that "it is necessary for archival science to come out of its isolation, to open itself up to society, and to seek in a theory of society the guarantees of [disciplinary] unity that the theory of the state is no longer capable of providing. ... A theory of society may instead prove capable of offering unified categories within which the whole gamut of archival problems can be easily lodged."[17] A number of archival writers support Bucci in seeing the social, organizational, and functional context of record creating and record keeping as essential to the discipline of understanding archives, so as, in Bucci's terminology, to inform archival knowledge and better direct archival practice. The focus is externally on what I have called the "creative act or authoring intent or functional context behind the record" rather than internally on the record itself.[18]

Luciana Duranti disagrees. An archival theorist who straddles the European and North American worlds, Duranti is precise in her definitions of archival science, although her definitions are the antithesis of Bucci's in terms of the nature and significance of archival science.[19] Archival science to Duranti is "the body of knowledge about the nature and characteristics of archives and archival work systematically organized into theory, methodology, and practice." In contrast to the "science" of diplomatics which concerns systematic knowledge about the nature and characteristics of individual documents, archival science applies to series and fonds, although she also equates it with the "history of administration and its documentation and the history of law." The link with diplomatics is clear, as archival science "constitutes the necessary mediation between diplomatic theory and

---

[17] Oddo Bucci, "The Evolution of Archival Science and its Teaching at the University of Macerata," in Bucci, ed., *Archival Science on the Threshold of the Year 2000*, 18, 34–35; and "Preface," 11.

[18] Cook, "What is Past is Prologue," 48. Other major writers in the "social" or "societal" or "archivalisation" school of archival thinking, in addition to Eric Ketelaar evidently, and myself, include, most prominently, Hans Booms, Helen Samuels, Hugh Taylor, David Bearman, Margaret Hedstrom, Rick Brown, Brien Brothman, Tom Nesmith, Frank Upward, and Verne Harris. On the social as opposed to statist basis for archival theory, see Cook, "What is Past is Prologue," 30–36, and below in this essay.

[19] See Luciana Duranti, "Diplomatics: New Uses for an Old Science [Part One]," *Archivaria* 28 (Summer 1989): 8–11 for quoted ideas; and her "Archival Science," in A. Kent, *Encyclopedia of Library and Information Science* 59 (1996), 1, 5, 12. For a fuller characterization and critique of Duranti's "scientific" views, see Mortensen, "The Place of Theory," 2–3, and *passim*; his analysis is based on wide reading in the history and philosophy of science.

its application to concrete, real cases. ..." Duranti is not oblivious to the
social environment surrounding records creation, but to her it is one narrowly
defined by the "legal doctrine" and juridical mores of the creator's context.
Much more problematic than this juridical narrowness, however, is Duranti's
positivist view of "science," whether archival science or diplomatic science.
Their principles and concepts, she believes, are "universally valid" and bring
"objectivity" to archival research into documentary contexts, which charac-
teristics she equates with having "a higher scientific quality." The precepts
of archival science "find their validity in ... internal logic and consistency,
rather than in their historical, legal, or cultural context." Archival science is
"a self-referential system, fully autonomous from the influences of political,
juridical, or cultural conceptions." This is archives as logical positivism.

Such notions of universality, logical autonomy, interiorization, and anti-
historicity are the complete opposite of postmodernism. Between Bucci and
Duranti's views on archival science lies a gulf wider than that separating the
general views towards archival science of the Europeans on one hand, and
North Americans and Australians on the other. It is the gulf between premod-
ernism and postmodernism. Yet many archivists cling to these premodernist
notions from Jenkinson, without perhaps the conscious precision of Duranti's
articulation, but still believing (or hoping?) that the archivist should remain
a kind of neutral, disinterested, ideally impartial mediator between record
creators and record users.[20]

---

[20] I recognize that there is debate in many disciplines about what "modernism" is, and thus
it is rather important here to state my position, if what I mean by premodernism (and postmod-
ernism) is to make sense to the reader. For some, modernism is contrasted with medievalism
and has its birth in the Renaissance; for others, modernism is situated in the rationalism of
the Enlightenment and its rejection of the religious passions of the previous century. I take the
narrower view that modernism is the mindset and values dominant in many disciplines and
arts in the first half or two-thirds of the twentieth century, as contrasted to Victorianism. On
this distinction, and for a stimulating intellectual history of the West in the past century, see
Norman Cantor, *The American Century: Varieties of Culture in Modern Times* (New York,
1997). This approach is complementary (although not exactly parallel) to Theo Thomassen's
useful distinctions (in "The Development of Archival Science and its European Dimension,"
already cited) of pre-paradigm archival science (Victorianism), classic archival science from
the Dutch Manual of 1898 until recent years (modernism), and now the prospect of a new
paradigm for archival science (postmodernism). I believe that the three phases are somewhat
different: premodern archival science encompasses the Victorian values (as Cantor sets them
forth) evident in diplomatics, the Dutch Manual, and on up to Jenkinson; modernist archival
science is represented by Schellenberg and the impact of organizational/managerial thinking
on archives; and postmodern archival thinking is, as Thomassen says, the new paradigm, the
nature and impact of which is the subject of this essay. Put another way, premodernists had
faith in the document as reflecting empirical acts and facts and in historical science of the
von Ranke school as capable of interpreting such documents to get at the objective reality
of the historical past; modernism questioned the objectivity of history, realizing that there

Such traditional views of "science" may be faulted on two scores. First, it confuses "science" with "scientism." Social critic Neil Postman writes of pseudo-sciences like psychology and sociology or management – might one add library science, information science, and archival science? – that attempt to legitimize their work by applying the research methods and logical analysis of the physical sciences' observations of natural objects (or phenomena) to social, human, or similar non-natural subjects (or phenomena) – such as information systems? – for which they are inappropriate.[21] This is often done, perhaps subconsciously, in the hope of winning for these new professions the status, respect, power, and cachet once accorded to chemists, biologists, or physicists, especially in university settings. While two atoms of hydrogen and one of oxygen under the same physical conditions at any place on earth at any time will always produce one molecule of water, two records creators, one function, and the need to record evidence of some identical task or transaction in different countries in different centuries will never produce the same archival record. Archival science patterned after the objective, universal laws of the physical sciences would take the human, historical, and idiosyncratic out of a social process (record keeping) in which they are inexorably connected.

And the second fault is that the traditional physical sciences, since Popper and Kuhn, to say nothing of the more recent postmodernist onslaught, have long ago abandoned claims to objectivity, neutrality, impartiality, autonomy, and universality to which some archival scientists – and more archival prac-titioners – still hold. For any science, its choices of projects, methods, and practitioners, its educational criteria, its standards of acceptance, and reasons for exclusion and failure, all reflect current needs and interests, and deeper social, gender, linguistic, ideological, political, economic, and emotional patterns and power struggles.

Our perception of the arrangement, organization, and classification of information that is central to archival science, Michel Foucault reveals, reflects the traditional Western notions of scientific rationalism and logical positivism. Such systems of organizing information confront archivists not only during their appraisal activity in the offices of records creation or contemporary use, but are imposed by archivists themselves in their internal descriptive practices. The seemingly rational logic of the categorization of information in such systems, Foucault explains, can beguile observers (including archivists) into assuming that neutral data or facts or "truth" are

were different historical interpretations possible from the same set of documents describing the same subject or event; postmodernism questions the objectivity and "naturalness" of the document itself.

[21] Neil Postman, *Technopoly: The Surrender of Culture to Technology* (New York, 1993), 144–163, and *passim*.

being conveyed. Yet the structuring of such systems can obscure or devalue the mind behind the matter, the intelligence behind the fact, the function behind the structure, the rich context, ironically, that archivists are dedicated to protecting behind the surface informational content. The postmodernist analyses the language, metaphors, and discourse patterns of the words, or the document, or the entire information system, in the context of its time and place, to reveal the underlying mind, motivations, and power structures of the records creator using these patterns. Archives for Foucault are anchored in contextual social theory rather than in scientific positivism.[22]

With the constant need to re-evaluate, de-construct, and accept the evolution of archival theory and practice, archivists in the new century should accept rather than deny their own historicity, that is, their own participation in the historical process. They should reintegrate the subjective (the mind, the process, the function) with the objective (the matter, the recorded product, the information system) in their theoretical constructs. And like those contemporary scientists at the very forefront of the new physics, they should abandon the atomistic (record-focused) approach of the old science for "a new science based on the primacy of process," where the "contextual dependence" of the whole is more important than the autonomy of the parts, and where science is situated in its historical and ideological contexts.[23]

---

[22] For Foucault, his key works for archivists are *The Order of Things: An Archaeology of the Human Sciences* (New York, 1970, originally in French in 1966) and especially *The Archaeology of Knowledge* (New York, 1972, originally in French in 1969). A good introduction to his thought is Gary Gutting, *Michel Foucault's Archaeology of Scientific Reason* (Cambridge, 1989); see especially pages 231–244 for analysis of Foucault on documents. For a pioneering example of applying some of these postmodernist insights to the documentary record, see J.B. Harley, "Deconstructing the Map," *Cartographica* 26 (Summer 1989): 1–20. Harley explores the powerful social context behind the map, as well as seeing in the map metaphorical and rhetorical elements where before scholars only saw measurement and topography. He demonstrates that cartography is less "scientific" than assumed, and reflects the functional predilections of its sponsor as much as the earth's surface. For a similar analysis and conclusion for another archival medium, see Joan Schwartz, "We make our tools and our tools make us": Lessons from Photographs for the Practice, Politics, and Poetics of Diplomatics," already cited.

[23] Evelyn Fox Keller, *Reflections on Gender and Science* (New Haven and London, 1985) pp. 11–12, 5–9, 130, and *passim*. See also Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (New York, 1980, 1990), pp. xvii–xviii. She demonstrates that the new thermodynamics and chaos theory also support similar conclusions about contextual, interdependent, process-based thinking. For an archival examination of these issues regarding the ideological nature of science, which also explores the implications this has for archival work, see Candace Loewen, "From Human Neglect to Planetary Survival: New Approaches to the Appraisal of Environmental Records," *Archivaria* 33 (Winter 1991–1992): 97–98, 100, and *passim*. Her ideas are reflected in part in Hugh A. Taylor, "Recycling the Past: The Archivist in the Age of Ecology," *Archivaria* 35 (Spring 1993): 203–213. The

Despite the analysis above, postmodernism and archival science need not be opposites. Postmodernism's concern with the "semiotically constructed contexts"[24] of records creation reflects the long-held archival concern for contextuality, for mapping the provenance interrelationship between the creator and the record, for determining context by reading through and behind text. In this way, archivists may have unknowingly been the first postmodernists – and decades before the term was even invented! Beyond this initial level of comfort, however, postmodernism should make archivists uneasy with many traditional formulations about archival science. Postmodernism by implication questions certain central claims of the profession: that archivists are neutral, impartial custodians of "Truth," in Jenkinson's words;[25] that archives as documents are disinterested or innocent by-products of actions and administrations; that provenance is rooted in the office or place of origin rather than the process and discourse of creation; that the "order" and language imposed on records through archival arrangement and description are value-free recreations of some prior reality; that our fixed, physical, structure-focused orientation need not change when faced with a destabilized, virtual, de-centred postmodern world. Unless archival science can adapt to these postmodern realities, unless it can be centred on social theory and historical contextuality, its relevance for the profession will be increasingly remote.

I suggest that archival science should view archival ideas, strategies, and methodologies over the past centuries, and from here on into future centuries, as concepts that are constantly evolving, ever mutating, continually adapting, because of radical changes in the nature of records, record-creating structures, organizational and work cultures, societal and institutional functions, individual and personal record-keeping predilections, institutional record-keeping systems, contemporary record uses, and the wider cultural, legal, technological, social, and philosophical trends in society. Archivists need to be able to research, recognize, and articulate *all* these radical changes in society and then deal conceptually with their impact on archival theory, methodology, and practice. That articulation forms our collective discourse as a profession, the meta-narrative that animates our daily practice, and thus is properly the focus of an archival science in the new century.

---

rich notes in both Loewen and Taylor's pieces can guide interested readers to many other supportive sources. Among many historical analyses showing that "science" is as much a product of ideology as of disinterested observation, see David F. Noble, *A World Without Women: The Christian Clerical Culture of Western Science* (New York, 1992) or Margaret Wertheim, *Pythagoras' Trousers: God, Physics, and the Gender Wars* (London, 1997).

[24] See note 12 above.

[25] See discussions and citations in Cook, "What is Past is Prologue," 23–26.

Changes in archival thinking

Postmodernism is not the only reason for reformulating the main precepts of archival science. Significant changes in the purpose of archives as institutions and the nature of records are other factors which, combined with postmodern insights, form the basis of the new perception of archives as documents, institutions, and profession in society.[26]

There has been a marked change in the very reason why archival institutions exist – or at least public and publicly funded archives: private business or corporate archives admittedly do not share fully in these changes. There has been a collective shift during the past century from a juridical-administrative justification for archives grounded in concepts of the state, to a socio-cultural justification for archives grounded in wider public policy and public use. This broad shift reflects in part the dominance during the century until very recently of historians as the driving force within the profession and in the training of archivists, and in part the changing expectations by citizens of what archives should be and how the past should be conceived and protected and made available. Archives traditionally were founded by the state, to serve the state, as part of the state's hierarchical structure and organizational culture. Archival science not surprisingly found its early legitimization in statist theories and models, and from the study of the character and properties of older state records. The resulting theoretical concepts have since been adopted by virtually every other kind of archival institution around the world, including even private collecting archives.

At the beginning of the twenty-first century, public sanction for archives in democracies has changed fundamentally from this earlier statist model: archives are now, in Eric Ketelaar's memorable phrasing, of the people, for the people, even by the people.[27] While the maintenance of government accountability and administrative continuity, and the protection of personal rights, are still rightly recognized as important purposes for archives, the principal justification for archives to most users, and to the tax-paying public at large, as also reflected in most national and state archival legislation, rests on archives being able to offer citizens a sense of identity, locality, history, culture, and personal and collective memory. Simply stated, it is no longer acceptable to limit the definition of society's memory solely to the docu-

---

[26] These following discussions reflect my analysis of the history of archival ideas since the Dutch Manual, as presented in ibid. I will not repeat here the extensive reference notes given there that support these summary conclusions.

[27] Eric Ketelaar, "Archives of the People, By the People, For the People," *South Africa Archives Journal* 34 (1992): 5–16, reprinted in Eric Ketelaar, *The Archival Image. Collected Essays* (Hilversum, 1997): 15–26.

mentary residue left over (or chosen) by powerful record creators. Public and historical accountability demands more of archives, and of archivists.

Archivists mainly working in national or institutional archives need to start thinking in terms of the process of governance, not just of governments governing.[28] "Governance" includes being cognizant of the interaction of citizens with the state, the impact of the state on society, and the functions or activities of society itself as much as it does the inward-facing structures of government and its bureaucrats. The archivist in appraisal, and all subsequent actions, should focus on the records of governance, not just government, when dealing with institutional records. This perspective also complements better the work of archivists dealing with personal papers or private "manuscript" archives. This citizen-state interactive relationship, I should note here, would be reflected in other jurisdictions by interaction of members with their church or union, students with a university, customers with a company, and so on – this broader "governance" perspective is not only for government archivists, but all archivists.

The challenge for archival science in the new century is to preserve recorded evidence of governance, not just of governments governing. And the task also now includes taking archives to the people, or encouraging them to come to use archives. Archives are not a private playground where professional staff can indulge their interest in history or their personal interaction with historians and other scholars or, equally, their inclinations to be part of the public policy and information infrastructures of their jurisdictions; archives are a sacred public trust of preserving society's memories that must be widely shared. Archivists serve society, not the state, even though they may work for an agency found within the state's bureaucracy.

The second major archival change relates to the record, and specifically how archives and archivists have tried to preserve authentic, reliable records as evidence of ideas and transactions. At its core, archival science has sought to understand records by illuminating their context or provenance or their order within a series or system, more than their subject content. Archivists first accomplished this protection of context by preserving, within the archives building, in unbroken custody and in the original (or restored) order of their initial classification scheme, all surviving records no longer needed by their parent administration. Such records were most often entire closed series

---

[28] See Ian E. Wilson, "Reflections on Archival Strategies," *American Archivist* 58 (Fall 1995): 414–429. For archivists merely (and meekly) to do what they think their government sponsors want regarding their own institutional records, or what archivists think will please these sponsors and thus show that archivists are good corporate "players" worthy of continued funding, is, as Shirley Spragge says, too easy an abdication of the archivist's mission and responsibilities. See her "The Abdication Crisis: Are Archivists Giving Up Their Cultural Responsibility?", *Archivaria* 40 (Fall 1995): 173–181.

from defunct organizations, or were old, isolated, prestigious documents. Appraisal was unknown or discouraged. Defending the original physical context was considered a critical part of this protection. Indeed, until the mid century, archivists often recreated the actual original physical order of departmental registry systems in the archival stacks by interfiling new accessions of records in the correct places among their predecessors already in the custody of the archives.

The focus has now switched from preservation of evidence to its creation and appraisal. Archivists try to preserve reliable records in context by ensuring that records are initially created according to acceptable standards for evidence, and, going further, to ensure that all important acts and ideas are adequately documented by such reliable evidence, rather than wait, passively, for a natural residue to emerge. (And should any later rearrangements or integrations be necessary, these are done now virtually by computer-sorting rather than physically rearranging the stack holdings.) In a world of large, open-ended series of records, in a world of rapidly changing and very complex organizations that create voluminous and decentralized paper records, and in a world of electronic records with their transient and virtual documents, their relational and multi-purpose databases, and their cross-institutional communication networks, no reliable record will even survive to be available to the archivist to preserve in the traditional way – unless the archivist intervenes in varying ways in the active life of the record. Such intervention will affect organizational behaviour, work cultures, record-keeping policies, and system design strategies, and will actively choose (i.e., appraise) which functions, processes, and tasks are significant and thus which related records are worthy of being preserved indefinitely as society's archives – all this done preferably even before the record is actually created. And once such records may be available to be preserved in archives, if that is desirable, the comfortable notion of the permanent value of the unique archival records over time also requires modification, simply because the electronic record will become either unreadable or incomprehensible unless it is recopied and its structure and functionality reconfigured into new software every few years by the archives. This replaces traditional archival preservation that focused on proper standards for the repair, restoration, storage, and use of the physical medium that was the record. With electronic records, the physical medium becomes almost totally irrelevant in a time-frame of decades or centuries for preserving such records, as the records themselves will be migrated forward before the physical storage medium deteriorates, and repeatedly so. What will be important is to reconfigure in new software over time so as to maintain the actual functionality or evidence-bearing context of the "original" record, and to that problem archival science must increasingly turn its attention.

As a result of these developments, archival science now should find its inspiration from functional analyses of the records-creating processes and from contemporary social theory rather than from the arrangement and description of recorded products found in archives. As Eric Ketelaar has concluded, "functional archival science replaces descriptive archival science, ... only by a functional interpretation of the context surrounding the creation of documents, can one understand the integrity of the *fonds* and the functions of the archival documents in their original context."[29] As Oddo Bucci has noted, which supports Ketelaar's insight, descriptive archival science was positivist, physical, and modern; functional archival science will be historical, virtual, and postmodern.

New formulations for archival science

For our new century, based on these changes in records and postmodern insights, archival science should shift its research paradigm from the analysis of the properties and characteristics of individual documents or series of records, to an analysis of the functions, processes, and transactions which cause documents and series to be created. With a focus on record-creating processes rather than on recorded products, core theoretical formulations about archives will change. Here are eight suggestions that summarize the above arguments:

1. *Provenance*: The principle of provenance changes from linking a record directly to its single place of origin in a traditional hierarchical organizational structure, to becoming a virtual and more elastic concept reflecting those functions and processes of the creator that caused the record to be created, within and across constantly evolving organizations, interacting with an ever-changing clientele, reflecting differing organizational and managerial cultures, and adopting often idiosyncratic conventions of work and human interaction appropriate for flattened, horizontal, networked, and (often) short-term organizations. Provenance, in short, is linked to function and activity rather than structure and place. Provenance becomes virtual rather than physical.

2. *Original order*: Original order changes from maintaining the initial physical placement of recorded products in a registry or classification system to the conceptual intervention of software, where pieces of records are stored randomly, without physical meaning, and then are recombined intellectually or functionally, in different ways, for different purposes,

[29] Eric Ketelaar, "Archival Theory and the Dutch Manual," *Archivaria* 41 (Spring 1996), 36, reprinted in Eric Ketelaar, *The Archival Image Collected Essays* (Hilversum, 1997): 62–63.

in different times and places, in varying types of orders, for different users. Orders reflect multiple uses in work processes rather than physical arrangement of recorded objects. A single "piece" of data may be ordered in multiple ways to reflect different uses for different audiences.

3. *Record*: The three component parts of any record – its structure, content, and context – that traditionally were fixed on a single physical medium – whether parchment, paper, or film – are now shattered into separate stores of data and perhaps different software programmes. A record thus 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. Moreover, as a record's context and uses change over time (including archival uses), the metadata changes, and the record and its context is continually being renewed. Records are no longer fixed, but dynamic. The record is no longer a passive object, a "record" of evidence, but an active agent playing an on-going role in lives of individuals, organizations, and society.

4. *Fonds*: The archival fonds similarly changes from being conceived as reflecting some static physical order based on rules arising from the transfer, arrangement, or accumulation of groupings of records, to a virtual relationship reality reflecting the dynamic multiple creatorship and multiple authorship focused around function and activity that more accurately captures the contextuality of records in the modern world.[30]

5. *Arrangement and description* will accordingly concentrate less on physical record entities and groupings, which mean nothing for electronic media anyway, and develop instead (and share with researchers) enriched

---

[30] For rethinking the nature of the archival fonds and thus archival description as involving many-to-many virtual relationships rather than the traditional one-to-many hierarchical and physical arrangement entities, see Terry Cook, "The Concept of the Archival Fonds in the Post-Custodial Era: Theory, Problems, and Solutions," *Archivaria* 35 (Winter 1992–1993): 24–37. The pioneer of such thinking three decades ago was Australian Peter Scott, as outlined in my "What is Past is Prologue," 38–39 (which has references to all Scott's key works); for the latest update on Australian descriptive thinking (with many additional references), see Sue McKemmish, Glenda Acland, Nigel Ward, and Barbara Reed, "Describing Records in Context in the Continuum: The Australian Refordkeeping Metadata System," *Archivaria* 48 (Fall 1999): 3–43. For description based on creator functional metadata rather physical arrangement, see David Bearman, "Documenting Documentation," *Archivaria* 34 (Summer 1992): 33–49; and Margaret Hedstrom, "Descriptive Practices for Electronic Records: Deciding What is Essential and Imagining What is Possible," *Archivaria* 36 (Autumn 1993): 53–62. For a working alternative based on such rethinking of the fonds, now operational at the Ontario Archives in Toronto, see Bob Krawczyk, "Cross Reference Heaven: The Abandonment of the Fonds as the Primary Level of Arrangement for Ontario Government Records," *Archivaria* 48 (Fall 1999): 131–153.

contextual understandings of the multiple interrelationships and uses of the records creation milieu, as well as incorporating related system documentation and functional metadata from the records' creator into archival descriptive tools.

6. *Appraisal* will continue to change from being an assessment of records for their potential research value, to becoming a macroappraisal analysis of the creator's societal functions, programmes, and activities, and citizen interaction with them, and then the selection the most succinct record for continued preservation and access that mirrors these functions, *and* searching for (or creating?) private-sector or oral and visual sources to complement official institutional records, using the same functional logic. Appraisal establishes "value" through social theory based on the contextual narrativity of creation rather than on subject content. Appraisal will attend as carefully to the marginalized and even silenced voices as to the powerful and official texts, and search for evidence of governance rather than government.[31]

7. *Preservation* will, as noted before, 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.)

8. *Archives* themselves as institutions will gradually change from being places only for the storage of old records that researchers must visit to consult, to becoming virtual "archives without walls," existing on the Internet to facilitate access by the public to thousands of interlinked record-keeping systems, *both* those under the control of the archives *and* those left in the custody of their creators or other archives.[32]

[31] For an introduction to "macroappraisal" or the appraisal of functions and activities rather than records, see Terry Cook, "Mind Over Matter: Towards a New Theory of Archival Appraisal," in Barbara Craig, ed., *The Canadian Archival Imagination: Essays in Honour of Hugh Taylor* (Ottawa, 1992), 38–70; and his *The Archival Appraisal of Records Containing Personal Information: A RAMP Study With Guidelines* (Paris, 1991); and Richard Brown, "Macro-Appraisal Theory and the Context of the Public Records Creator," *Archivaria* 40 (Fall 1995), pp. 121–172. Similar approaches have been adopted by the national archives of the Netherlands with its PIVOT project, and in South Africa and Australia, among other jurisdictions.

[32] The work of David Bearman has most prominently advocated this approach. For an overview, see his collected essays published as *Electronic Evidence: Strategies for Managing Records in Contemporary Organizations* (Pittsburgh, 1994); as well as Margaret Hedstrom and David Bearman, "Reinventing Archives for Electronic Records: Alternative Service Delivery Options," in Margaret Hedstrom, ed., *Electronic Records Management Program Strategies* (Pittsburgh, 1993), 82–98. The initial statement for the distributed management or non-

All these changes move the theoretical (and practical) focus of archival science away from the record and toward the creative act or authoring intent or process or functionality behind the record. In this new world, therefore, the core intellectual work of archival science should focus more on illuminating the functional and structural contexts of records, and their evolution over time, and on building knowledge systems capable of capturing, retrieving, displaying, and sharing this conceptual-provenance information as the basis of all archival decision-making, from system design and appraisal "up front" on through to public programming and outreach activities "at the back."

And this makes the archivist an active mediator in shaping collective memory through archives. Archivists inevitably will inject their own values into all such research and activities, and thus will need to examine very consciously their choices in the archive-creating and memory-formation process. They will also need to leave very clear recorded evidence explaining their choices to posterity. By doing so, with postmodern sensitivity and historical perspective, archivists may better balance which functions, activities, organizations, and people in society, through records, are to be included and which are to be excluded from the world's collective memory.

Process rather than product, becoming rather than being, dynamic rather than static, context rather than text, reflecting time and place rather than universal absolutes – these have become the postmodern watchwords for analyzing and understanding science, society, organizations, and business activity, among others. They should likewise become the watchwords for archival science in the new century, and thus the foundation for a new conceptual paradigm for the profession.

---

custodial approach to preserving archives was David Bearman, "An Indefensible Bastion: Archives as Repositories in the Electronic Age," in David Bearman, ed., *Archival Management of Electronic Records* (Pittsburgh, 1991), 14–24, that has generated many articles both attacking and supporting this concept. Nevertheless, recognizing the new realities, the national archives of the United Kingdom, Canada, and Australia have adopted policies for the distributed management by other bodies of some categories of electronic records.