

Electronic Records, Paper Minds: The revolution in information management and archives in the post-custodial and post-modernist era

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Archival mindsets and solutions reflect generations of sound practice in a paper-based world. How do we recast our 'paper minds' to deal electronic realities? An understanding of the post-modernist theories of process-based contextuality can refresh and enliven the provenancial basis of our profession and stimulate and encourage us to 'constantly renew our discourse'. This article, based on a presentation delivered by the author during his November 1993 Australian tour, is intended to promote discussion and reflection not only within the archival profession but also within the broader audience of related information professionals as post-custodial and post-modernist trends affect all those who create, manage, preserve and use recorded information.

EXPLORING THE CONNECTION OF POST-CUSTODIAL archives and post-modernist formulations is a broad subject for a single essay. The assertions which follow, as in their original Australian presentation and purpose, are therefore intended for discussion and debate, and do not purport to be tightly woven or 'proven' arguments. They are only reflections about the future course of our profession, but as such they are also aimed at a broader audience than just those archivists already inside the documentary and provenancial cloister.

Post-custodial and post-modernist trends affect all those who create, manage, preserve, and use recorded information.¹

This whole topic might first appear to be an oxymoron: how can archivists be post-modernist and post-custodial when, in the popular stereotype, they along with museum and art gallery curators are probably perceived as the most custodial, the most care-taking, the most preservationist, of all professionals in the modern world. Archivists are the 'keepers'. We look after records placed under our care. We rescue things when no-one else needs them. We lovingly restore and conserve them. We preserve them in our vaults forever. Our own literature and professional *mentalité*, at least until very recently, reinforces these images. Yet my thesis, simply stated, is that archivists can no longer afford to be, nor be perceived to be, custodians in an electronic world.

Having said that, however, it is no concession or contradiction to assert also that traditional archivists will always be needed. Our present collections, to say nothing of overwhelming backlogs and servicing the researchers who want access to them, guarantees the long survival of archivists well versed with the techniques and strategies of the custodial era. We must not adopt in the profession a kind of trained forgetting, where the challenges of the future devalue the accomplishments of the past and their continuing usefulness in the present. Nevertheless, archivists caring even for collections that exist almost exclusively in paper form will still need to develop new thinking and new approaches for the electronic records they will receive tomorrow if not today. No archivist is 'safe' from these challenges in the longer run, although the changes will have a deeper and more immediate impact on some compared with others. However, the argument in this essay extends further, contending that, even for the voluminous paper records of the present and recent past, our collective custodial mindsets have failed us in many ways. Perhaps reassuringly, the argument is also that our future success rests on reconceptualising the traditional strengths of the profession, on taking the best and transforming it for a new age.

Central to any post-custodial reorientation of the archivist, or any other information professional, is the fundamental revolution affecting the very nature of society's collective memory caused by the widespread use of the computer, and especially the personal computer. For the first time in 3 500 years of records management and archival activity, we have too much rather than too little information. For the first time, we have records that do not exist to the human eye, unlike the foregoing worlds of Babylonian clay tablets,

Egyptian papyrus, Roman and Medieval parchment, and modern paper, even modern microfilm.

For the first time, we have business officers and professionals creating and storing their own records rather than relying on an army of secretaries, file clerks, and records managers to do this work for them. Most important, for the first time, we are not producing, managing, and saving physical things or artefacts, but rather are trying to understand and preserve logical and virtual patterns that give electronic information its structure, content, and context, and thus its meaning as a 'record' or as evidence of acts and transactions.

All these 'firsts' mean we are beginning to shift our professional attention from archives to archiving.² Hugh Taylor reminds us that 'acts and deeds' always underlay the resulting, recording instruments.³ The names of archival documents, the things over which for centuries we have so carefully exercised custody—such as a map, a chart, a file, a memorandum—were all derived in the later Middle Ages from action verbs: to map, to chart, to file, to memorialise. Behind a document is the need to document. Behind the document, usually the paper document, lies the action, the process, the broader function of the records creator. Indeed, the document provides evidence that an action took place at all, and within which larger functional context of the records' creator. Behind the record always lies the need to record, to bear evidence, to hold and be held accountable, to create and maintain memory. In the computer world of virtual, destabilised, fleeting documents, such actions and the continuing need for evidence of them acquire a larger significance, as they did for our medieval predecessors with their oral tradition of remembrancers, or as they still retain for Aboriginal and Native communities in Australia and Canada.⁴

This is as true for the 'late paper' world as for the electronic one: millions of boxes of chaotic paper records in larger jurisdictions, produced by hundreds of destabilised and 'decentred' administrative structures masking any single office of origin, equally dictate the need to rise above or look behind the record to the broader functional context of its recording, to all dimensions, in short, of its processes of creation.

Yet despite these fundamental changes, despite the consequent need to reorient or reinvent or reconceive our work, almost all the concepts, practices, procedures, and even accepted terminology of the profession reflect our legacy of paper records. We have paper minds trying to cope with electronic realities. Our mindsets and solutions come from and reflect generations of practice in a paper-based world, a world as well of fixed structures and Weberian hierarchies where the office of origin of each record created was perfectly

clear, and relatively stable over time. This older world is no longer holding. The resulting and rather jarring dysfunction is causing a revolution in our ranks, certainly as archivists, but also, I would think, and urge, as information professionals in every field. Many of the issues forcing a change in archival concepts and strategies are exactly the same ones for all such professionals: changing information technologies, changing administrative/organisational structures, new corporate information needs, new legislative frameworks, new perspectives on the value of information as a corporate resource, new awareness of the need for public and democratic accountability.⁵

Electronic records threaten paper-minded people as nothing before ever has: not only are our jobs and credibility at risk, but so too is the corporate health of our sponsoring institutions and their and our accountability to the broader society. Yet our response, if theoretically sound, also offers us the greatest opportunity in the history of our profession to achieve the elevated position in society which our modern professions have never enjoyed. To do so, however, I will argue that records managers must shift their emphasis from the physical 'records' to the conceptual 'management,' from providing a warehouse service to integrating all the business processes of their sponsor with redesigned recordkeeping systems. And archivists must shift from looking after physical objects to focusing on the functional context in which records-creating activities take place.

Archivists and information managers can contribute to this conceptual revolution shaking the information world by maximising the power of creating and using records in context, that is, provenance. There has been in North America a 'rediscovery' of provenance in recent years, leading to a renewed emphasis in appraisal and description on the context rather than the content of records.⁶ The rediscovery now made, I am here arguing that we also need to redefine, reinvent, even reconceive (in both senses of the word) our notion of provenance for the electronic age. If we are able to do so, then once again, like Thot, the Egyptian god of records and archives, we may sit beside the pharaohs rather than in dismal records offices or quiet archival stacks. Once again, as with the Medieval remembrancers, we may hold the essential knowledge to enable church and state, corporation and university, to function. In fact, until this century, the records officer was extremely important in administration, whether business or government.⁷ The 'Secretary' was for centuries the keeper of 'secrets', the trusted confidant of the King, Queen, or President. Indeed, the 'Secretary' in the United States still has cabinet ranking as the closest advisers of the head of state. The Registrar and the Lord Privy Seal were senior cabinet ministers whose names correctly identify that their

roles, and their reputations and status rested on their responsibilities to ensure the integrity and control of records, and the corporate memory and legal power represented by these records. In most Australian universities, the Registrar still serves as the administrative head of the institution. As recently as the end of the nineteenth century, the Secretary of the Canadian Federal Department of Agriculture, who was in charge of all its records, and the Deputy Minister, who was the most senior public servant reporting directly to the cabinet minister, were one and the same person. In many of these cases, the records officer was a very senior, sometimes the most senior, official of the administration, responsible for providing the key information to make decisions, often making or strongly influencing the actual decisions themselves, and then preserving the record (or evidence) of those decisions. They were *de facto* the records managers and sometimes the archivists.

All this changed in the twentieth century, especially with the Second World War. For one thing, secretaries became underpaid and powerless women rather than senior administrators, a process started earlier with the introduction of the typewriter and the rationalisation and bureaucratisation of office work.⁸ And those senior administrators no longer looked after, or often cared about, records. The huge volumes of records generated in the war and later by the interventionist welfare state signalled that this crucial change had occurred. Yet these mid-decades of the twentieth century are usually viewed positively in the histories of our professions: records management emerged (at least in North America) as a distinct profession as a direct result of the need to control the paper avalanche of the thousands of new wartime programs, and to a lesser degree those of the Great Depression before it. Archives similarly changed from being storehouses of small quantities of rare, usually very old, historical manuscripts to being part of the life cycle for corporate records management. Yet, in these changes, there lurked a danger: the records management profession (and to a lesser degree the archival profession) became defined as a group of people who kept huge volumes of physical records under control for the use of the real decision makers. We became curators, custodians, managers even, of mountains of paper, often warehouses full. But, sadly, we were no longer deputy ministers, no longer the confidants of monarchs, no longer the advisers sitting at the right hand of the pharaohs.

Perhaps as information professionals now entering a new, electronic age, we will be able to reclaim our heritage (or birthright?) and become again central players in the world of both corporate memory and documentary heritage. To do so, however, we must stop being custodians of things and start being purveyors of concepts. We must stop serving, in the first instance, and start directing; stop rowing and start steering. We must get off the daily treadmill and start realising that the supply of records, or evidences of actions

and transactions and of their animating processes and functions, gives us unique powers. We must stop fearing that the new age of increasing demands, ever more records to manage, difficult computer records to cope with, even shrinking resources—that all these spell hopeless gloom—and start believing that traditional archival principles and theories, transformed into the corporate setting of the records creator and appropriately reconceptualised for an electronic world, may hold the key to prospering in the new environment we face. We must, in short, embrace with enthusiasm our context-based or provenance-based legacy, to which we have too often paid lip service only, and transform it from a physical and structure-centred mindset to one that is conceptual and process-centred.

In facing these choices, information professionals need to realise that an utter transformation is taking place in the world of information. This in turn requires a complete new paradigm, or intellectual framework, to situate our ideas and practice. As I remarked ten years ago, in searching for this new paradigm, archivists (and their information professionals allies) will move from focusing on information to seeking and conveying knowledge and understanding.⁹ We will move from databases to knowledge bases. We will move, in the language of the post-modernists, to recontextualise our activities: we will reorient ourselves from the content to the context, and from the end result to the original empowering intent, that is, from the artefact (the actual record) to the creating processes behind it, and thus to the actions, programs, and functions behind those processes.¹⁰ We will move from nouns to verbs, from records to the acts of recording, from the text to the context behind or through text (or image). In so doing, we may ultimately serve our users and our sponsors far better, for we will identify, preserve, describe, and make available for them not mere facts and data, but the full richness revealed in records as evidences of contextualised transactions. We thereby provide the means of ensuring accountability for the broader programs and functions behind those transactions, and of identifying on a wider scale yet the building blocks for cultural heritage and collective memory.

I want to state as clearly as possible that this refocusing from the specific to the general, from the record to its functionality, from the matter to the mind, is not a case of black and white, not either/or, not mutual exclusivity, as some commentators have implied, but rather a change, albeit a very significant one, in emphasis and strategic thinking. The record still has a very important place in this new approach, but one that is consciously recontextualised with the functions, programs, and activities that give it rise. As I have stated elsewhere, records remain for archivists the key source of much of this contextual knowledge, based on historical, diplomatic, hermeneutic, and organisational analysis and understanding of them. I am not therefore

abandoning the record but, realising that there are too many of them, I am rather advocating that archivists cannot understand the new records by first looking at billions and billions of records; instead, they must start with an understanding of the wider context of the process of the record's creation and contemporary use.

In this regard, Canada's doyen of archives, Hugh Taylor, has underlined that archivists should be 'concerned with the recognition of forms and patterns of knowledge which may be the only way by which we will transcend the morass of information and data into which we will otherwise fall....'. Eric Ketelaar, State Archivist of the Netherlands, notes the need by creating institutions and by subsequent users alike for such contextuality, for highly intelligent conceptual road maps to navigate through the information overload of modern paper and newer electronic records. Ketelaar concludes his clarion call with this reminder of our central strength as archivists: 'In the holistic exploitation of their holdings—conventional and new archival materials alike—lies the answer to T. S. Eliot [or, we now learn, maybe to his wife!], who once asked: 'Where is the wisdom we have lost in knowledge?/Where is the knowledge we have lost in information?'¹¹ If we as information professionals can guide our sponsors and users from masses of specific information on to knowledge, and even wisdom, we will be secure indeed in the new age and make a valuable contribution to society and posterity. If not, we will be replaced by software packages that can handle facts, and data, and information very efficiently, without any mediation by archivists or anyone else.

The adoption of any 'new' paradigm is by definition fundamental and substantive. That is to say, it operates at the level of theory or of basic concepts. It is not tinkering, nor is it even strategic planning. The transformation in the information professions is truly a 'paradigm shift,' not merely a 'technological adjustment'.¹² It is not doing what we have always done a little faster and a little smarter—with the aid of computers or better training or better procedures or better methodologies or even a little better financial support. Such improvements, while giving short-term relief and undoubtedly useful to a degree, are ultimately illusory, for they are inadequate to cope with the fundamental transformation in archives and in the information society. These mechanisms are ways and means, not substance and ends. If improved ways and means are applied to the wrong ends, to the old archival paradigms of the custodial age, then these ways and means will not solve the problems we face. We will have improved, larger, better sticking bandaids perhaps, but bandaids nonetheless. What we need is a new diagnosis, followed by a new cure.

In light of these challenges, archival theorists have asserted in recent years that the profession is moving from a custodial to a post-custodial era. At the risk of offending anyone by exclusion, I might note that the initiator of the explicit post-custodial idea was Gerald Ham in a oft-cited 1981 essay.¹³ Its key leaders are David Bearman in the United States and Hugh Taylor in Canada who, in their rather different ways, have been charting this course for more than a decade,¹⁴ as have more recently Angelika Menne-Haritz in Germany, Margaret Hedstrom, Helen Samuels, and Charles Dollar in the United States, and myself in Canada, among others.¹⁵ In Australia, Glenda Acland and Sue McKemmish have strongly promoted post-custodial ideas, Australian Archives has reflected that direction in its innovative appraisal and disposition framework for electronic records, and of course Frank Upward in a series of provocative articles has crystallised much of this rethinking.¹⁶ Indeed, one might suggest that the strong post-custodial sensibility evident in Australian archival thinking reflects its major debt to Peter Scott, and the colleagues with whom he developed the innovative series system approach. Scott and his colleagues advocated that archivists must move away from describing records in the 'custody' of an archival institution and arranged these into a single group for a single records creator, and instead move towards describing the multiple interrelationships among numerous creators and numerous series of records, wherever they may be: in the office(s) of creation, office(s) of current control, or the archives. In effect, Scott shifted the focus of description from static cataloguing to mapping dynamic relationships. He similarly shifted our focus from the things in archives to the idea of archives. Scott's fundamental insight, therefore, broke through not just the straitjacket of the record group, but all the 'physicality' of archives upon which the record group and so many other approaches to archives had been, and often still are, implicitly based. In this way, as is finally being acknowledged, Peter Scott is the grandfather of the gathering post-custodial revolution in world archival thinking.¹⁷ And yet the post-custodial paradigm has by no means won over the profession. It is still in its infancy—Frank Upward refers to the revolutionary changes of the last four years¹⁸—and has its opponents. A counterattack by what I might call neo-Jenkinsonians is already underway in Canada, but that is another story, for another day.¹⁹

Advocates of a post-custodial approach are not saying that archivists of the future will no longer have physical custody of records—although for certain types of electronic records that will be true. They are not saying that archivists will stop dealing with huge backlogs of paper records in their custody or that such work is in any way of lower value. They are not saying that the record itself is no longer important to the archivist, or that its intrinsic characteristic as evidence of acts and transactions is in any way compromised. They are not saying that archivists should ignore records and discern

contextual knowledge from reading annual reports and agency mission statements rather than researching in and analysing records to unravel their contextuality. But they are saying that a post-custodial reorientation of the archival world means that the archival practices or mindsets formed in the older custodial era of paper records must change, as must the older perceptions of records creation and records management. And most especially, they are saying that our traditional focus on caring for the physical things under our institutional custody will be replaced or (at the very least) enhanced by a focus on the context, purpose, intent, interrelationships, functionality, and accountability of the record and especially its creator and its creation processes. All this goes well beyond simple custody, and thus has usefully been termed post-custodial.

Why is this change occurring? To answer that is to outline the relative failure of archival activity in the older custodial era—despite the fact that, while working with our records management colleagues, we have all saved many wonderful collections of records during this period. Up to the later 1970s, archivists failed to deal with appraisal on any ‘coherent and comprehensive basis’ because of the nuts-and-bolts tradition still dominating the profession. That tradition was set in an earlier ‘custodial era’, when the volume of records was relatively small and the technology of records creation, storage, and retrieval fairly straightforward. As a result, archivists ‘assumed a passive role in shaping the documentary record’. They were content to gather, arrange, and describe records no longer needed. By contrast, and this is the key point, they should have been active documenters probing how society—institutions and individuals—records, uses, describes, stores, and disposes of information, and, even more important, determining what larger functions, programs, activities, and transactions these acts of recording serve and provide evidence for, and in turn which functions and programs and activities are important and which are not important in terms of public accountability, societal culture, and national heritage and self-knowledge. Rather than address these broader contextual issues, however, archivists have tended to concentrate their appraisal and descriptive activities on the resulting end-product—the actual record—and the potential possibly evident in its content for actual or anticipated research. In determining such potential, archivists became closely allied with researchers, especially academic historians, with the ultimate result ‘that archival holdings too often reflected narrow research interests rather than the broad spectrum of human experience’.²⁰ Content rather than context won out in traditional archival practice.

If until recently archivists have too easily followed the directions set by the latest fads of historical research and too passively gathered up the information products at the tail-end of the records life cycle, information professionals have similarly too frequently tried to do their old ways more efficiently rather than seek new directions for their work. Instead of becoming active partners in their companies' or their governments' central functions, programs, and activities (in short, its business processes), instead of becoming the focus of their institution's collective memory and therefore corporate health, they have remained passive managers of increasing volumes of information, and have tried to manage this information in ways not very different from those practised twenty or even thirty years ago—certainly more efficiently with automated information management tools and so on, but in large part not fundamentally different at a conceptual level. A recent United Nations study concluded that information technology has been widely introduced in business and government, especially individual computer workstations, largely in order to improve operational efficiency and productivity. In so doing, however, information management issues relating to this new technology have generally been overlooked. Such issues concern the consistent identification of 'records' within information systems, their corporate control, their accurate description for retrieval, and their long-term retention. Electronic records exactly like their paper predecessors are needed by any corporate body not just for increased productivity, but also (and this is worth memorising) for 'management accountability, operational continuity, legal evidence, disaster recovery, and "institutional memory"'.²¹ Such corporate needs have not been squarely faced by information professionals, with but few exceptions. The UN situation is common to most jurisdictions, where information technology is rapidly introduced, but information management policy concerning the new technology lags far behind. This lag results because we look to our physical object custodial past rather than to our knowledge-based post-custodial future.

This traditional approach of the 'custodial era' simply breaks down in the reality of modern bureaucracies and contemporary records. Everyone has their own favourite figures to illustrate this—here are mine. There are 1 000 books published internationally every day; there are 9 600 different periodicals published in the United States alone every year. On this basis, the world's total amount of **printed** information alone doubles every eight years; that means that there is more new information in the **past thirty years** than in the **previous 5 000**. Even more awesome figures exist for unpublished, broadcast, and computerised information, which is the world that the archivist and the information professional confronts daily. To take but one example, it was once calculated that if merely the **current paper records** of the Government of

Canada were laid end-to-end, they would circle the globe 144 times or complete eight round trips to the moon. This is the equivalent every year of twenty million books, or roughly 1.3 million books per National Archives' appraisal archivist to consider, which comes to well over 6 000 books per working day per archivist—and that total does not even consider electronic records which are conservatively estimated to contain one hundred times more information than their paper cousins, or any other media: maps, videos, photographs, posters, etc. The central flaw in the old 'custodial era' approach is that there are simply too many records 'at the bottom' for archivists to appraise.

If the volume or extent of records is the first factor transforming the old custodial mindset, the second major change relates to the kind of records now being produced in a computerised world. Electronic data and information are shared across organisational and jurisdictional boundaries. A number of institutions and thousands of employees may have had a hand in creating and using the data. In compound or virtual documents, such as those in geographical information systems, relational databases, or hypertext formats, data in various media or from numerous other data sources or tables are combined electronically to produce a 'document' on the monitor.²² This 'document' can change from second to second as the attribute 'feeder' data on which it depends is continually altered. In short, there is often no traditional physical 'record' at all as archivists or information managers traditionally understand it, but rather a series of 'views' which for different functions reflect, at a precise point in time, the combination and re-combination of data elements in different ways for different transactions, the amalgam of which process is presented as a 'document' but fleetingly at the terminal screen. Turning that 'document' into a 'record,' when corporate or archival needs dictate long-term preservation of it, is, in a word, the core challenge now facing information professionals.

In this fluid electronic environment, the idea of a record physically belonging in one place or even in one system is crumbling before new **conceptual** paradigms, where 'creatorship' is a more fluid process of manipulating information from many sources in a myriad of ways, or applications, rather than something leading to a static, fixed, **physical** product. For information professionals, this signals that the custodial era is giving way to a post-custodial one, where the curatorship of physical objects will define our professions much less than will an understanding of the conceptual or virtual interrelationships between creating structures, their animating functions, programs, and activities, the information systems, and the resulting records. It means, too, that the three components of a record—its content, context, and structure—must also be seen differently and approached with new

strategies, all the while readily conceding that traditional paper records, especially unique symbolic records, will continue to be created and will continue to require archivists' attention.

Imagine that a chief executive officer sends a crucial policy-related electronic mail message to her nine corporate directors on 23 July 1993, including for five of them an attached word-processing report containing a graphic design incorporating spreadsheet summaries, which are linked to a database where the data values change daily (or perhaps by the second). The message and attachments involve investment strategies for the company and key client profiles, and the CEO requests that the directors study the document and take appropriate decisions in their portfolios. Imagine that a lawsuit takes place years later for wrongful dismissal by one of these directors, based on his alleged negligence in carrying out the CEO's orders. He claims he never got the message.

If that same message had been sent in 1983 or 1973 or even 1903, it would have been a typed paper memorandum, appropriately addressed to the five key directors and copied to the others and signed by the CEO, with a hand-drawn chart right in the body of the typed text, with typed lists (for those five special directors) of columns of figures and statistical tables in an appendix that would be physically stapled or paper-clipped to the CEO's memorandum. For such 1983 or 1973 versions of the message, any legal dispute could be settled by recourse to the paper file where the whole 'package' sent by the CEO would reside, with appropriate evidence of signatures, routing-slip initials, acknowledgment-of-receipt or date stamps, and so on. Not so with the new electronic version of 1993. Even if the system backup tapes all safely survived, could the corporation, given the intricate software dependencies involved, retrieve and, more important, could it reconstruct the CEO's compound electronic document two years, or maybe even ten years, after the fact in order to defend itself? Could it prove that the offending director had been on the CEO's electronic mail system distribution list for that date and had actually been sent the document? Could it prove that the director had received the document, and that he had filed or deleted it? Could it prove that his version was one of the five with the attachment? Could it recreate the crucial attachment itself, that is, actually reconstruct the data values as they were on 23 July 1993 from the ever-changing spreadsheet tables? Could it prove that no subsequent alteration took place in the data values or spreadsheet formulae, and if so, when these occurred and what they were? Indeed, for any such corporate electronic system, where the file folders and staples and paper clips have been replaced by software commands and

operating system features, can the institution hold itself accountable through records for its acts and transactions? Can it demonstrate that each decision made was accurate given what was known at the time, as opposed to the product of error or negligence? The key, of course, is determining long after the fact 'what was known at the time,' what, in effect, was the context of the record upon which the original decision was made.

This brings the issue back to the archival heartland, and to the centrality for all archival thinking of the 'record' and its defining context. Archivists specialise in safeguarding the integrity and authenticity of records in context. That is provenance. Unlike librarians, archivists want to know (and share with their researchers) not just what was communicated, but when, by whom, to whom, where, how, why, in relation to what other documents, using what media, connected to what broader functions, programs, and activities, both now and over time. These broad questions rest on three properties which all records have: content, structure, and context. Let's look at each briefly, first for familiar paper records and then for the modern electronic document.

For paper records, all three elements are stored or represented on the same physical medium, and are readable to the human eye. Content is most obvious: it is the words, phrases, numbers, and symbols composing the actual text. The structure of paper documents is also readily evident from the design of the form used for special kinds of transactions: an accounts journal page is different from a business tax return or from a land grant certificate. The context for paper records is derived from the signature lines, the signature itself, the address and salutation, the letterhead, the date, the copies or 'c.c.' line on the bottom of the page, perhaps the surviving envelope, various stamp impressions or annotations of date of receipt or transmission or filing, the position of the document within a larger paper file of related documents, the file heading or title, the file number, the file's own place within a larger records classification system, mark-out cards recording who had read the file on what date, and cross-references to related documents in other media (maps, photographs, videos, etc.). Archivists consider this contextual information to be essential to the comprehension of any 'record' as an integral reflection (or recording) of acts and transactions, and thus of corporate accountability for them. Without context, one is left with information or data, but not a record, and not a good corporate memory on which to base future decisions or defend earlier ones.

For electronic media, the content, structure, and context of the record changes significantly from the traditional paper world. These are not stored in one physical place as on a paper page (and its stapled attachments), nor is the record itself readable by the human eye without machine and software

intervention. The closest electronic equivalent to paper is the content element, where the letters and numbers look very much the same on the computer screen as on a paper sheet. Yet some such content may be stored in many places and then be logically imported and implanted in the text to create the content of the electronic document. Such imported content is not visible when retrieved from ASCII or 'generic' text dumps or in software-dependent system back-up files (unless the original hardware and software and software version are available, and the likelihood of that happening over time is extraordinarily poor). Think, for example, of our CEO who sent out her investment strategies message electronically. The interconnections of her compound document are not intrinsically or physically part of the text of the document the user sees on the screen, as they would be in a paper world, but rather are logical linkages in software or in the operating system. These give instructions to the computer to go and query the database, drop the relevant values found there into the spreadsheet, built a graphical interface from the spreadsheet formulae totals, and place the resulting pie chart in the appropriate spot in the report that is attached to the electronic mail. The user sees the final product on the screen but there is no such product actually stored anywhere in the computer. Rather, there is information scattered in many places which the software and operating system stitch together at a particular moment in time to form that logical or virtual document. Change that software and system, even add a new version or upgrade to the system, alter any of the data values, and those relationships between the electronic mail, letter, graphic, spreadsheet, and database are lost in the vast majority of systems operating in businesses and governments today. The virtual document vanishes. Evidence and accountability are gone with it. Even the forms (or record structure) that in a paper world are so conveniently filled in now become templates on the screen; these electronic forms or 'macros' are very software dependent, often migrating only with great difficulty even from one version to the next of the same software package. Increasingly, these internal computer instructions and protocols are stored in metadata systems, which themselves are very software dependent. Corporate memory and accountability requires that the context and structure of the record as much as its physical storage media be safeguarded, if the content is to be available and understandable.

In this complex new information environment, archivists and information professionals must take charge, and move from being passive custodians to active documenters, from managing the actual record to understanding the conceptual context, business processes, and functional purpose behind its creation. Our CEO sends out thousands of electronic mail messages in a year. Determining which ones have long term value to the corporation and to archives rests not on reading each such message—and by extension the millions of other such messages sent by everyone in the corporation. Rather

it rests on understanding which functions, programs, processes, and activities are important (central, core, mission- or mandate-driven) and which are not (peripheral, supportive, administrative), and then building into the software and business rules precise methods of separating the former from the latter, keeping one and destroying the other. To do this, we must study the context of our sponsor's functions, business processes, and work cycles, and then help them to decide what key acts and transactions within that functions-process matrix need to be captured and when; encourage them in system design to distinguish information from records; and convince them to preserve as 'records' the most vital evidence of important transactions, activities, and functions. We must (as with the current University of Pittsburgh project) bring to the table a knowledge of the necessary requirements to be programmed into metadata if information systems are to produce (and describe) records rather than mere information, if the products of such systems are to bear evidence of actions done or undone and thus open the door to genuine accountability. We must ensure that our CEO's compound message does not vanish into the cybernetic ether, but that its content, structure, and context is preserved as part of her institution's corporate memory, and ultimately our broader archival heritage. Her information system must be transformed into a recordkeeping system. Such strategic repositioning of the profession may also recast our archives not as buildings where old records are stored, but as access hubs to (and auditing centres controlling) records left out in their originating systems. We will have virtual archives, archives without walls. Without such a broad post-custodial reorientation of our activities, our sponsoring institutions will surely lose their legal accountability in a court of law, or morally in the court of the people, and society will lose its sense of the past, its very collective memory and culture.

This essay has not the space to outline how these post-custodial concepts take place in daily practice. They are not, however, arid theories divorced from working reality, as I tried to demonstrate in two related lectures in Australia on appraisal and description. There are, in fact, a growing number of models for implementing an active, functions-based, contextual, post-custodial, macro-level archival paradigm. Each such archival model searches out where the key corporate mandates and needs are most likely to occur functionally and structurally, and then ensures that corporate accountability, business process integrity, legal concerns, policy continuity, and operating memory are protected. And if this all happens, then it will be possible to protect archival interests as well. Various strategic and technological tools such as corporate data modelling, business process reengineering, information system resource directories, electronic data interchange standards, and functional requirements written into system metadata to ensure 'recordness',

are very complementary to these new approaches, and they significantly help archivists adopt post-custodial frameworks for both appraisal and description.

One social commentator has advanced this solution to information overload and the resulting narrowing of vision and accountability: 'If we are to retain any kind of perspective on the role of humankind in the future, we must sometimes stand back and view the landscape, not merely a tree'. Another put the matter this way: 'Information is not knowledge. You can mass-produce raw data and incredible quantities of facts and figures. You cannot mass produce knowledge, which is created by individual minds, drawing on individual experience, **separating** the significant from the irrelevant, making value judgements'.²³

Archivists and their information management allies are the key **separators** of 'the significant from the irrelevant' in terms of both institutional corporate memory and our broader societal documentary heritage. By embracing the conceptual power of putting information in its broader context, which is the animating archival principle of provenance, of dealing with 'recordness', archivists and related information managers can provide meaning and understanding to society and to their sponsors. By mapping a contextual path through the information forest, by rising above the individual trees, they have the opportunity to create **value-added knowledge** in information systems, and thus to protect their institution's policy, operational, and legal health, and its wider accountability in a democracy to its citizens. In so doing, they can become, in today's post-custodial Information Age, a key corporate player rather than yesterday's curatorial curiosity. And perhaps once again, they will be invited to stand beside the pharaohs.

Now what has this post-custodial reorientation for the archival profession got to do with post-modernist sensibilities? Does Michel Foucault meet Sir Hilary Jenkinson on a field of Hollinger boxes in mortal combat? Or do they walk arm-in-arm down a garden lane into a sunset of mutual contextuality? Does the post-modernist perspective (to be defined shortly), that started in architecture, evolved through post-Sartre French philosophy and literary criticism to influence almost every discipline, from history to literature to psychoanalysis to anthropology to cartography to film, photograph, and art studies, to say nothing of feminist theory across many disciplines, does this post-modernist perspective also have relevance for archives and archivists? My short answer is yes.

The post-modern affects archives in two ways. First, post-modernism spends no little time and energy dealing with the nature of historical and other texts. Indeed, not infrequently, post-modernist commentators explicitly address archives as institutions and their role in society and in the formation of 'official memory'. It is this dimension that concerns me most in the rest of this essay. But there is a second way that post-modernism affects us, which should at least be mentioned in passing. We live in a post-modernist era, whether we like it or not. Terry Eastwood has made the important observation, here in Australia in fact in 1989, that archivists must study their own history, that in his words 'one must understand the political, economic, social and cultural milieu of any given society to understand its archives'. Eastwood adds that 'the ideas held at any given time about archives are surely but a reflection of wider currents in intellectual history'.²⁴ The dominant intellectual trend of this age is post-modernism, and it will therefore affect archives. We as archivists had best begin to speculate how and why.

The problem with post-modernism is of course one of definition. It affects so many aspects of society today that it can mean almost anything depending from which camp and discipline a particular commentator speaks. The post-modernist field is littered with opposites, or as adherents might prefer, interacting paradoxes, from Michel Foucault anchoring texts in socio-political-historical power realities in order to construct systems of organised knowledge to Jacques Derrida deconstructing or dismantling those very same systems, indeed the very language on which they rest. Information theory under the post-modernist umbrella can encompass philosophy, linguistics, semiotics, structuralism, hermeneutics, iconology, to say nothing of Marxism and feminism. To make matters worse, I readily admit to having no particular expertise in this area; archivists who have explicitly addressed the post-modernist impact on archives with far more sophistication than I have include Rick Brown and Brien Brothman in Canada, and Frank Upward in Australia.²⁵ But let me sketch out a few post-modernist formulations, with an eye of course on their documentary and thus archival implications.

The post-modern distrusts and rebels against the modern. The notions of absolute truth based on scientific rationalism and the scientific method, on textual criticism and objective knowledge, are dismissed as chimeras. The context behind the text, the power relationships shaping the documentary heritage, and indeed the document's form and content, tell us more than does the objective thing itself. Nothing is neutral. Nothing is impartial. Everything is shaped, presented, represented, re-presented, symbolised, signified, signed, by the speaker, photographer, writer, for a set purpose. No text is a mere by-product, but a conscious product, although that consciousness may be so

transformed into semi- or even unconscious patterns of social behaviour and information presentation that the link to external realities and power relationships is quite hidden.

The post-modernist tone is ironic, a kind of eye-winking knowing that subverts accepted wisdom. Almost everything sacred is put in metaphorical quotation marks, so that, mentally, the power of religion becomes the power of 'so-called religion'. The post-modernist stance is one of doubtfulness, of trusting nothing at face value, of always looking behind the surface, of upsetting conventional wisdom.²⁶ Post-modernists try to de-naturalise what we assume is natural, what we have 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, liberal humanism, religion, great literature—and declares them to be 'unnatural', or 'cultural', or 'man-made' (and I use 'man' advisedly).²⁷

If the twentieth-century modernist criticised the notion of historical fact or truth, so the post-modernist criticises the notion of a document. Jacques Le Goff 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 the royal ones of Mesopotamia, Egypt, China, and pre-Columbian America. The capital city 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.²⁸ Feminist theorists, 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-legitimised by the archival process in the ancient world, a process that has continued well into this century.²⁹ Who do we as archivists memorialise? More important, who do we marginalise and exclude from memory?

Post-modernists have a deeper 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, while viewing records themselves as trick mirrors distorting facts and past realities, they nevertheless often resort, rather ironically, to history and historical analyses and historical narratives. Michel Foucault at the head of the pack has done important historical studies of mental illness, criminology, and human sexuality, for

example. One post-modernist 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 that the past once existed, but that our knowledge of it is semiotically transmitted.³⁰

The positivist model based on the integrity of a scientific resurrection of facts from the past has been discredited.³¹

Well, what does any of this mean for archivists? The most obvious conclusion is that the post-custodial approach reflects post-modernism. That is why they are coupled together in this essay. Paper minds are modern; electronic virtuality is post-modern. The post-custodial approaches I am advocating to appraisal (the 'mind over matter' functions-based macroappraisal) and to description (the multiple-creator functionality of the virtual fonds and of records system metadata) reflect post-modernist sensibilities. Post-modernism thus allows us a rich vein of contemporary thinking in which to explore our own profession. In some ways, this should not be difficult, for post-modernism's concern with the 'semiotically constructed contexts' of records creation also clearly 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 post-modernists!

Beyond this initial level of comfort, however, post-modernism should make us uneasy, causing us to question certain central claims of our profession: that archivists are neutral, impartial custodians of 'truth,' in Jenkinson's words; that archives as documents and as institutions are disinterested by-products of actions and administrations; that provenance is rooted in the office of origin rather than the process of creation; that the 'order' and language imposed on records through archival arrangement and description are value-free recreations of some genuine prior reality; that our fixed, physical, structure-focused orientation need not change when faced with a destabilised, virtual, 'de-centred' world reality; that archives are primarily official records rather

than a 'total archive' cultural heritage of all human documentary legacies; or that archives is a science, or at least that the scientific rationalism of the Enlightenment is our glorious heritage.

The modern organisation and classification of information, as Michel Foucault reveals, reflects that tradition of scientific rationalism.³² Such systems of organising information naturally confront archivists not only during their appraisal activity, but are imposed by archivists themselves in their internal descriptive practices. The very logic of the rational categorisation of information in the scientific age, Foucault explains, can beguile observers (including archivists) into assuming that neutral data or information or truth is being conveyed. The very structure and purpose of such information systems, as well as the allegedly sacrosanct nature of the record or document as evidence, can thus obscure or devalue the mind behind the matter, the intelligence behind the fact, the function behind the structure, ironically the very context itself that archivists are dedicated to protecting. The post-modernist analyses the language, metaphors, and discourse patterns of the words, or the document, or the entire information system of the time, to encounter the underlying mind, motivations, and power structures of the records creator using these symbols. Records for Foucault are therefore anchored in contextual social theory rather than in scientific positivism.³³

Indeed, ever since Thomas Kuhn in 1962, if not before, science itself has been radically reconceived by recognising its subjective nature where previously it generally had been characterised as objective, neutral, impersonal and disinterested. Archival science is no different. For any science, its choices of projects, methods, and practitioners, its standards of acceptance, and reasons for exclusion and failure all reflected current needs and interests, and deeper social, linguistic, ideological, gender, and emotional patterns and power struggles. There is a lesson here for archivists. Like scientists, archivists—despite the Jenkinsonian canons of strict impartiality—are thus (and always have been) very much a part of the historical process in which they find themselves—and very much a part of the legacy of scientific rationalism critiqued by Foucault and other post-modernists. Archivists 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 approach of the past—abandon the custodial age of nuts and bolts—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.³⁴

Such post-modernist theories of process-based contextuality should not be antithetical to archivists, and indeed should be welcomed by all archivists, for these are the very principles upon which our profession rests. What else is provenance? Post-custodial and post-modernist sensibilities do not mean we are abandoning archival principles, but rather reconceiving our traditional, Jenkinsonian guardianship of evidence from a physical to a conceptual framework, from a product-focused to a process-oriented activity.³⁵ We should, then, embrace our traditional principles anew—but thoroughly refreshed and enlivened by post-modernist conceptions. Let us not, in Frank Upward's beautiful phrase, be 'too attached to the symbolic order of the custodial archive, anchoring our hopes for domination on a waning mode of discourse'. As Upward says, himself reflecting post-modernist phrasing and thinking, let us 'constantly renew our discourse'.³⁶

Endnotes

- 1 A version of this essay was delivered several times during a November 1993 invitational lecture tour of Australia: to a mixed group of archivists, records managers, and other information professionals in Brisbane; to a group mainly of archivists in Sydney; and to the faculty and graduate students in the Archives and Records Program at Monash University in Melbourne and its invited guest archivists. I sincerely thank the Australian Society of Archivists and Australian Archives for sponsoring my tour and making these and numerous other events possible, the participants in these sessions whose ideas and questions are now reflected in part in these pages, and many Australian colleagues for their warm hospitality and personal kindnesses. While the paper has been extensively rewritten, with some new material and examples also added, the essay intentionally retains its original tone as a discussion paper rather than exhibiting the full paraphernalia of a scholarly article; similarly, despite their length, the endnotes are meant to be suggestive rather than exhaustive. For helpful suggestions on this draft, I am very grateful to Glenda Acland at the University of Queensland, Sue McKemmish and Frank Upward at Monash University, Michael Piggott at Australian Archives, and to Brien Brothman, Richard Brown, and Candace Loewen at the National Archives of Canada. They have all significantly improved the essay by their comments, but they are not responsible for its remaining flaws or arguments.
- 2 The starkest evidence of this shift is the call to reinvent archives in almost all their functions, from surveying and scheduling records, through appraisal and description, to preservation and public service; see David Bearman and Margaret Hedstrom, 'Reinventing Archives for Electronic Records: Alternative Service Delivery Options', in *Electronic Records Management Program Strategies*, ed. Margaret Hedstrom, Archives and Museum Informatics Technical Report No. 18, Pittsburgh, 1993, pp. 82-98. For two other recent views of how archivists must fundamentally recast their assumptions and strategies, but not their basic theories, see Charles M. Dollar, 'Archival Theory and Practices and Informatics. Some Considerations', in *Archival Science on the Threshold of the Year 2000*, ed. Oddo Bucci, Ancona, Italy, 1992, pp. 311-28; and 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 L. Craig, Association of Canadian Archivists, Ottawa, 1992, pp. 38-70.

- 3 Hugh Taylor, 'My Very Act and Deed: Some Reflections on the Role of Textual Records in the Conduct of Affairs', *American Archivist*, vol. 51, Fall 1988, pp. 456-69.
- 4 Sue McKemmish of Monash University made this latter important point in discussion in Melbourne. On the Medieval transition, see the very fine analysis, now in an expanded second edition, by M. T. Clanchy, *From Memory to Written Record: England 1066-1307*, Oxford and Cambridge, 1979, 1993.
- 5 On the important role of records as the underpinning of government and corporate accountability, and therefore as a potential unifying strategy and language of purpose for archivists and for information or records managers, see Sue McKemmish and Frank Upward (eds), *Archival Documents: Providing Accountability Through Recordkeeping*, Ancora Press, Melbourne, 1993. This common purpose (and cross-disciplinary approach) also forms the conceptual basis of the innovative graduate Archives and Records Program at Monash University. I applaud Australians (McKemmish and Upward, while leaders, are not alone) for developing this useful and elegant articulation of accountability, with but one major qualifier. It is important that we as archivists do not confuse a common language of purpose and a common strategy of accountability that may be adopted by archivists and their allies with the fundamental goals of the archival profession itself, or worse, to equate records needed by their creators for accountability purposes with a definition of which records are archival (although there will be important overlaps of the two categories). While an 'accountability framework' almost certainly will help archivists and their information manager allies get inside the corporate door, and may indeed give them much needed credibility in resource lean times as valuable colleagues marshalling an essential corporate resource, I strongly believe that an 'archival framework' must ultimately take precedence for archivists over an 'accountability framework'. In other words, ends and means need to be kept very clear when we adopt this (or any other) strategy. For example, an important record relating to a financial investment or an individual case must be kept for accountability reasons for as long as the investment is held or the individual lives, and perhaps a few years longer. Then accountability ceases at the level of the individual transaction, and so does the value of the record being kept for specific accountability purposes. Yet the record—perhaps a Ballarat gold company's ledger, 1852-1886, or the case file of a soldier killed at Gallipoli—would retain archival value far beyond its original accountability dimension. One might argue, although so far Australians have not emphasised this point, that there is a general and long-term accountability above or beyond specific accountability, such as holding the Australian government accountable for how it has treated Aboriginals in this century, whereas specific accountability would relate to a single transaction relating to one Aboriginal. The records needed for such general accountability, however, would only be a small selection or sample or statistical aggregate of the whole, which brings one full circle to archival appraisal being something quite different from only identifying as archival those records necessary for corporate accountability or even corporate memory. It is undoubtedly true that if good records are created for short term, specific accountability requirements, then the longer general accountability needs will also be served, although whether as a subset or transcendent grouping is an argument that can be left for another day. It is also true (and unfortunate) that the view of accountability in businesses and corporations by their information managers and even their archivists tends to be rather narrow and

legalistic, unlike in a 'public' archives where accountability as the basis for democracy and for the protection of citizens' rights is generally conceptualised much more broadly. Again, let's look at accountability from the opposite direction. There are records—like the roomful of work orders and delivery invoices created by the construction of a single skyscraper—that may well have very high value for accountability reasons, at least for as long as the building survives, but only a tiny fraction, if any, of which might also have long-term archival value in reflecting the key functions, structures, and activities of society or of the records creators. Moreover, applying the joint accountability/archival framework to private records of individuals—poets, painters, writers, explorers, inventors, etc. — rather stretches the concept past credulity, to the point where it becomes so all-encompassing as to be meaningless. To dismiss such private records (and the archivists who deal with them) as being beyond the pale of archives (meaning narrowly defined corporate and government archives), as I occasionally heard in Australia, diminishes, in my view, the entire profession and our documentary heritage. While the Canadian 'total archives' model is not possible to implement institutionally in Australia, Frank Upward notes that its inclusive and comprehensive ideal has much to offer Australian archivists collectively and 'is a viable option for us to pursue'; see Frank Upward, 'Institutionalising the Archival Document', in McKemmish and Upward, *Archival Documents*, p. 53. To their credit, McKemmish and Upward have more recently recognised some of these potential failings of the accountability framework vis-a-vis the cultural/heritage ends of archives, and the need to reconcile the two archival solitudes; see Frank Upward and Sue McKemmish, 'Somewhere Beyond Custody', *Archives and Manuscripts*, vol. 22, no. 1, May 1994, pp. 145-46.

- 6 On the renaissance of provenance as a concept and animating ideal for the archival profession, as well as a thorough review of the related literature behind this renaissance, see 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, Scarecrow Press, Metuchen, N.J., 1993, pp. 1-28.
- 7 For an interesting historical survey, see Luciana Duranti, 'The Odyssey of Records Managers', in *Canadian Archival Studies*, pp. 30-60.
- 8 Good entrees to these themes may be found through JoAnne Yates, *Control Through Communication: The Rise of System in American Management*, Baltimore, 1989; Alfred D. Chandler, Jr., *The Visible Hand: The Managerial Revolution in American Business*, Cambridge, MA, 1977; and Graham S. Lowe, "'The Enormous File": The Evolution of the Modern Office in Early Twentieth-Century Canada', *Archivaria*, no. 19, Winter 1984-85, pp. 137-51.
- 9 Terry Cook, 'From Information to Knowledge: An Intellectual Paradigm for Archives', *Archivaria*, no. 19, Winter 1984-85, pp. 28-49.
- 10 Elsewhere I have summarised this overall reorientation as moving from matter to mind. As this relates primarily to appraisal, and to archival theory generally, and thus de facto updates my 1984 conceptual statement cited in the previous note, see my 'Mind Over Matter: Towards a New Theory of Archival Appraisal', passim. For the application of the same reorientation for the other two key archival functions of description/intellectual control and reference/public programming, see, respectively, Terry Cook, 'The Concept of the Archival Fonds: Theory, Description, and Provenance in the Post-Custodial Era', in *The Archival Fonds: From Theory to Practice*, ed. Terry Eastwood, Ottawa, 1992, pp. 31-85; and Terry Cook, 'Viewing the World Upside

- Down: Reflections on the Theoretical Underpinnings of Archival Public Programming', *Archivaria*, no. 31, Winter 1990-91, pp. 123-34.
- 11 Hugh A. Taylor, 'Towards the New Archivist: The Integrated Professional', paper delivered at the annual conference of the Association of Canadian Archivists, Windsor, June 1988, manuscript, pp. 7-8; Eric Ketelaar, 'New Archival Materials', bound offprint from the Third Plenary Session, XI International Congress on Archives, Paris, 1988. On the mapping analogy, see Terry Cook, 'Rites of Passage: The Archivist and the Information Age', *Archivaria*, no. 31, Winter 1991-92, pp. 171-76.
 - 12 I am of course consciously referring here to Hugh Taylor's many important works. For his masterpiece, see Hugh A. Taylor, 'Transformation in the Archives: Technological Adjustment or Paradigm Shift?' *Archivaria*, no. 25, Winter 1987-88, pp. 12-28. Before any other archivist in the world, Taylor was alert to the fundamental challenges facing society, and archivists and records managers, from new information technologies, and their new ways of ordering information, and thus of transforming our ways of thinking and knowing. For over twenty years he articulated his vision in a series of provocative speeches and articles in Canada and elsewhere. In doing so, he has inspired a generation of archival thinkers, of whom I am proud to be one.
 - 13 F. Gerald Ham, 'Archival Strategies for the Post-Custodial Era', *American Archivist*, vol. 44, Summer 1981, pp. 207-16. Ham broached many of the same ideas without the label even earlier, in 'The Archival Edge', *American Archivist*, vol. 38, January 1975, pp. 5-13, reprinted in *A Modern Archives Reader: Basic Readings on Archival Theory and Practice*, eds Maygene F. Daniels and Timothy Walch, Washington, 1984, pp. 326-35.
 - 14 For David Bearman, in addition to the very important co-authored piece (with Margaret Hedstrom) on 'Reinventing Archives' already cited (note 2 above), see principally David A. Bearman and Richard H. Lytle, 'The Power of the Principle of Provenance', *Archivaria*, no. 21, Winter 1985-86, pp. 14-27; and David Bearman's *Archival Methods*, Pittsburgh, 1989; 'Multisensory Data and Its Management', in *Management of Recorded Information: Converging Disciplines*, ed. Cynthia Durance, Munchen et al., 1990; 'Archival Principles and the Electronic Office', in *Information Handling in Offices and Archives*, ed. Angelika Menne-Haritz, Munchen et al., 1993, pp. 177-93; and 'Archival Data Management to Achieve Organizational Accountability for Electronic Records', in *Archival Documents*, pp. 215-27. See also the footnotes in that article for other works of importance by Bearman. For Hugh Taylor, in addition to key works already cited in this article (notes 3, 11, and 12), see especially Hugh A. Taylor, 'Information Ecology and the Archives of the 1980s', *Archivaria*, no. 18, Summer 1984, pp. 25-37; and 'The Media of Record: Archives in the Wake of McLuhan', *Georgia Archive*, vol. 6, Spring 1978, pp. 1-10. For a brief appreciation of Taylor's work, see James K. Burrows and Mary Ann Pylypchuk, 'The Writings of Hugh Taylor: A Bibliographic Review [and] Comprehensive Bibliography', in *The Archival Imagination: Essays in Honour of Hugh A. Taylor*, pp. 244-59.
 - 15 See Angelika Menne-Haritz, 'Archival Education: Meeting the Needs of Society in the Twenty-First Century', plenary address offprint, XII International Congress on Archives, Montreal, 1992; for Margaret Hedstrom, in addition to the important article cited in note 2 above, see especially 'Understanding Electronic Incunabula: A Framework for Research on Electronic Records', *American Archivist*, vol. 54, Summer 1991, pp. 334-55; and 'Descriptive Practices for Electronic Records: Deciding What is Essential and Imagining What is Possible', *Archivaria*, no. 36, Autumn 1993, pp. 53-63; for Helen Samuels and her new concept of the institutional functional analysis,

see *Varsity Letters: Documenting Modern Colleges and Universities*, Scarecrow Press, Metuchen, N.J., 1992; for Charles Dollar, see his *Archival Theory and Information Technologies*, Ancona, Italy, 1992; for my own work, see references to several articles throughout these notes, as well as *The Archival Appraisal of Records Containing Personal Information: A RAMP Study With Guidelines*, Paris, 1991. No few other writers reflect post-custodial thinking without using the term when they address particular archival problems and issues, but they have not written as extensively or as directly on the concept itself.

- 16 See Glenda Acland, 'Managing the Record Rather Than The Relic', *Archives and Manuscripts*, vol. 20, May 1992, pp. 57-63; and the revealing title of her 'Archivist—Keeper, Undertaker or Auditor?' *Archives and Manuscripts*, vol. 19, May 1991, pp. 9-15, where she argues strongly for the last role. The 'record' for Acland is an evidentiary, post-custodial conceptual reality, whereas the 'relic' is a curatorial, custodial, physical thing. For a very good summary of Australian post-custodial thinking, see Upward and McKemmish, 'Somewhere Beyond Custody', pp. 136-49. For a fine example of post-custodial appraisal thinking and work, see Greg O'Shea, 'The Medium is not the Message: Appraisal of Electronic Records by Australian Archives', *Archives and Manuscripts*, vol. 22, May 1994, pp. 68-93. For thoughtful commentaries, see the articles and introductory material by Sue McKemmish and Frank Upward themselves, throughout their *Archival Documents*, and especially at pp. 3, 8, 21, 41-45.
- 17 There is probably no need to cite Scott's works for an Australian audience, but for others reading this, see Peter Scott, 'The Record Group Concept: A Case for Abandonment', *American Archivist*, vol. 29, October 1966, pp. 493-504; and his five-part series, with various colleagues as co-authors: 'Archives and Administrative Change—Some Methods and Approaches', *Archives and Manuscripts*, vol. 7, August 1978, pp. 115-27; vol. 7, April 1979, pp. 151-65; vol. 7, May 1980, pp. 41-54; vol. 8, December 1980, pp. 51-69; and vol. 9, September 1981, pp. 3-17. Some post-custodial thinkers elsewhere have built their ideas up from Scott's foundation; the more radical rethinking of descriptive paradigms for archives within a post-custodial framework by North Americans, for example, is explicitly due to Scott's inspiration: see Max J. Evans, 'Authority Control: An Alternative to the Record Group Concept', *American Archivist*, vol. 49, Summer 1986, pp. 251-53, 256, 259, and passim; David Bearman and Richard Lytle, 'Power of the Principle of Provenance', p. 20; and Terry Cook, 'Concept of the Archival Fonds', pp. 52, 67-68. Most North Americans have little idea that Scott's breakthrough was the product of a lively debate within the Commonwealth Archives Office (now Australian Archives), with Ian Maclean, the first Commonwealth Archivist, also having a very significant role. And important refinements to the system still occur at Australian Archives, such as recently adding functionality indexing to the series system, or with Chris Hurley's work at the Public Record Office of Victoria concerning contextual ambience surrounding the records-creating process. For Maclean, see Sue McKemmish and Michael Piggott (eds), *The Records Continuum: Ian Maclean and Australian Archives First Fifty Years*, Ancora Press, Melbourne, 1994, which also contains Hurley's important essay on Australian descriptive theory and practice. Nevertheless, despite this cooperation and healthy legacy, Peter Scott rightly earns the major credit, for he articulated the concept in publication much more than did his contemporaries. I am indebted to Glenda Acland, Sigrid McCausland and Chris Hurley for clarifying (and correcting!) my earlier ideas about Scott and the Australian descriptive system, and to Russell Kelly, Mark Wagland and Di Easter at Australian Archives for demonstrating its exciting new dimensions in automated environments.

- 18 Upward, 'Institutionalizing the Archival Document', in McKemmish and Upward, *Archival Documents*, p. 43.
- 19 An unpleasant example, marred by personal attacks, is Terry Eastwood 'Nailing a Little Jelly to the Wall of Archival Studies', *Archivaria*, no. 35, Spring 1993, pp. 248-50; which I have refuted in Terry Cook, "'Another Brick in the Wall": Terry Eastwood's Masonry and Archival Walls, History, and Archival Appraisal', *Archivaria*, no. 37, Spring 1994, pp. 96-103, and to which I will give no further attention here. More professional statements of the neo-Jenkinsonian position are in press, and their authors make important points that post-custodial archivists must recognise. I hope to respond to those arguments in due course, and demonstrate that their concern about the centrality of the record, and its evidence-bearing characteristics, are not antithetical to a post-custodial framework, as already indicated generally in earlier paragraphs of this essay.
- 20 See Ham, 'Archival Edge', pp. 326, 328-29, 333; and Cook, 'Mind Over Matter', pp. 40-41, and passim. I have elsewhere criticised the user-driven approach to archives as a trivialisation of archival essence in pursuit of the marketing rhetoric of customer-obsessed corporate America or as an over-reliance on Schellenberg's informational values at the expense of corporate needs for long-term recordkeeping and institutional memory: see, respectively, 'Viewing the World Upside Down: Reflections on the Theoretical Underpinnings of Archival Public Programming', pp. 123-34; and 'Easy To Byte, Harder To Chew: The Second Generation of Electronic Records Archives', *Archivaria*, no. 33, Winter 1991-92, pp. 210-11.
- 21 United Nations, Advisory Committee for the Co-ordination of Information Systems (ACCIS), *Management of Electronic Records: Issues and Guidelines*, New York, 1990, p. v, and passim.
- 22 That 'document' on the monitor screen can also be sent to the printer in some cases, and thus printed and placed on a paper-based registry file. The 'print-to-paper' option, however, is not really acceptable for an electronic world. Much of the functionality and evidence of the document is inherent in the electronic system and is lost with the media conversion to paper. Moreover, end-user resistance is very high to doing this; initial Canadian studies show that from thirty to fifty per cent of the records in electronic form do not get onto the registry file, despite forceful executive orders that all computer-generated information shall be so printed and filed. At best, 'print-to-paper' is a very short term bandaid solution that archivists and information managers should be working hard to leave behind them. There are a growing number of electronic document management software packages available, but that only begs the question: which of the millions of documents so managed are records, what properties make them so, what are the important acts and transactions, processes and functions, for which records must be generated and kept?
- 24 Terence M. Eastwood, 'Reflections on the Development of Archives in Canada and Australia', in McKemmish and Upward, *Archival Documents*, p. 27. See also Barbara Craig, 'Outward Visions, Inward Glance: Archives History and Professional Identity', *Archival Issues: Journal of the Midwest Archives Conference*, vol. 17, 1992, p. 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', in his *American Archival Analysis: The Recent Development of the Archival Profession in the United States*, Metuchen, N.J., 1990, pp. 182-200.
- 25 Brien Brothman, 'Orders of Value: Probing the Theoretical Terms of Archival Practice', *Archivaria*, no. 32, Summer 1991, pp. 78-100; and 'The Limits of Limits: Derridean Deconstruction and the Archival Institution', *Archivaria*, no. 36, Autumn 1993, pp.

- 205-20; Richard Brown, 'Records Acquisition Strategy and Its Theoretical Foundation: The Case for a Concept of Archival Hermeneutics', *Archivaria*, no. 33, Winter 1991-92, pp. 34-56; and 'The Value of "Narrativity" in the Appraisal of Historical Documents: Foundation for a Theory of Archival Hermeneutics', *Archivaria*, no. 32, Summer 1991, pp. 152-56; and Frank Upward, 'Institutionalising the Archival Document', in McKemmish and Upward, *Archival Documents*, pp. 41-54. My own foray in post-modernism before this article was largely confined to the portions of 'Mind Over Matter', cited earlier. Brien Brothman made the astute observation in reading this essay that even context and contextuality, such as I am advocating, have their own context. Creation is important, he noted, 'but what ontology, what view of identity, lies behind our concept of creator, author, writer'? He adds that Derrida would say that the more radical questions we now ask of ourselves under the stimulus of electronic records and virtual environments are equally applicable to the entire tradition of Western writing: the instability of text and of text-author relations is perhaps more apparent with electronic media, but in fact has been a persistent reality since language came into use.
- 26 By this standard alone, David Bearman and Hugh Taylor are surely the world's leading post-modernist archivists!
- 27 There seems no point to citing here a shelf-full of post-modernist books. However, in addition to Michel Foucault's own analysis and historical methodology (see note 33 below), my understanding of post-modernism owes much to the work of 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. A cross-section of the best work from many disciplines is Charles Jencks (ed.), *The Post-Modern Reader*, London, 1992.
- 28 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 post-custodial 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*, vol. 49, Spring 1986, pp. 109-24.
- 29 Feminist scholars are keenly aware of the ways that systems of language, writing, and recording information, and preserving such information once recorded, are social- and power-based, not neutral, both now and across all past millennia. For example, see Gerda Lerner, *The Creation of Patriarchy*, New York and Oxford, 1986, pp. 6-7, 57, 151, 200, and passim; and Riane Eisler, *The Chalice & The Blade*, San Francisco, 1987, pp. 71-73, 91-93. Lerner's new book, *The Creation of Feminist Consciousness: From the Middle Ages to Eighteen-seventy*, New York and Oxford, 1993, carefully details the systematic 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 eleven, 'The Search for Women's History'.
- 30 Hutcheon, *Poetics of Postmodernism*, p. 122.
- 31 For an interesting discussion, see Richard Terdiman, *Present Past: Modernity and the Memory Crisis*, Ithaca and London, 1993, especially pp. 348-49 which summarises much of his argument. A leading (and early) voice in this regard was Dominick LaCapra, *History & Criticism*, Ithaca and London, 1985.
- 32 This and the next paragraph follow closely the argument I made in 'Mind Over Matter', pp. 43-44.

- 33 This is also the conclusion reached by Rick Brown and Frank Upward in their works, as well as in Brien Brothman's seminal essays (all cited above in note 25). 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 pp. 231-44 for analysis of Foucault on documents. For a pioneering example of applying some of these post-modernist insights to the documentary record, see J.B. Harley, 'Deconstructing the Map', *Cartographica*, vol. 26, Summer 1989, pp. 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 based on a case study, see Terry Cook, "'A Reconstruction of the World": George R. Parkin's British Empire Map of 1893', *Cartographica*, vol. 21, 1984, pp. 53-64.
- 34 Evelyn Fox Keller, *Reflections on Gender and Science*, New Haven and London, 1985, pp. 11-12, 5-9, 130, and *passim*. The pioneering work linking 'pure' scientific theory, discoveries, and methods to their very 'impure' contemporary social and intellectual context was T. S. Kuhn's *The Structure of Scientific Revolutions*, which in 1962 demonstrated that the alleged neutrality of science was more a product of ideology than reality. 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 the best archival examination of these issues regarding the ideological nature of science, which also explores the implications this has for our work, see Candace Loewen, 'From Human Neglect to Planetary Survival: New Approaches to the Appraisal of Environmental Records', *Archivaria*, no. 33, Winter 1991-92, pp. 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*, no. 35, Spring 1993, pp. 203-13. The rich notes in both Loewen's and Taylor's pieces can guide interested readers to many other supportive sources.
- 35 On this point and explicitly criticising 'post-custodial' assumptions that can be asserted too blithely as a radical break from the past, see the fine essay by Heather MacNeil, 'Archival Theory and Practice: Between Two Paradigms', *Archivaria*, no. 37, Spring 1994, pp. 16-17. She warns that the substance of archives of 'the protection and safeguarding of evidence' should be retained for very good reasons, even as our means and strategies to accomplish this end might have to change fundamentally. That of course has been my perspective for some time and in this article. In a helpful commentary on my essay, Frank Upward reflected that there are really two types of Jenkinsonians: the Roundheads who stay in their archival fortresses, guarding their physical treasure of records, and burning at the stake any who challenge the literal canon of Jenkinsonian strict objectivity; and the Cavaliers who go out into the field to protect the key evidence within the recordkeeping continuum, who emphasise the moral rather than physical defence of archives, and who follow Jenkinson in spirit if not to the letter. In this context, I might muse that MacNeil is a Cavalier! I would also characterise my own archival thinking as Cavalier Jenkinson with a dose of post-modernism and philosophical idealism thrown in for good measure. I hope that in good Cavalier tradition that this does not necessarily cause one to lose one's head....

36. Upward, 'Institutionalising the Archival Document', p. 43. I assume by this phrase that Upward is not rejecting the symbolic value or nature of archives generally, but only of the custodial archives in the physical sense. Records change symbolically when they are designated as archival, whether or not they physically reside in an archives per se. Archival records, blessed by society's priests of memory, acquire by that very status a different social-cultural meaning and use. On this question generally, see James M. O'Toole, 'The Symbolic Significance of Archives', *American Archivist*, vol. 56, Spring 1993, pp. 234-55.