

# *Recycling the Past: The Archivist in the Age of Ecology*

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I am writing this in a very personal way as a poor substitute for what would be my contributions to invigorating discourse with friends and colleagues, who would have contributed so much more, and because what I have to say is very tentative in its application to archives. I strongly believe that the present times demand a major shift in our way of thinking, and I have developed this theme at some length in recent articles. I should like now to outline and comment on some further ways in which archivists and others may be pointing us in the right direction, that is to say, in the right brain direction!

Ralph Metzner, in summarizing the characteristics of the age, asserts that “a growing chorus of voices is pointing out that the roots of the environmental disaster lie in the attitudes, values, perception, and basic world view that we humans of the industrial, technological global society have come to hold.”<sup>1</sup> He believes, as I do, that we are in a transitional stage on the way to an ecological age, “the outlines of which are being articulated in the natural sciences, the social sciences, and in philosophy and religious thought.” He further believes that the so-called “information age” is more of the same mind-set, since the approach is fundamentally mechanistic, as in the previous industrial era, characterized by continuing mass production, narrow economic models of efficiency and unbridled competition, and “does not represent a real shift in values such as the ecology and the environmental crisis demand.” I do not entirely agree with this, since computers are not engines and machinery in the old sense, and are already changing the way in which we regard information and knowledge. Thanks to our mechanistic culture, we still treat automation like Babbage’s computing “engine” and still speak of “machine-readable archives,” which simply present us with data a little smarter and a little faster.<sup>2</sup>

Whereas others write and speak of a post-modern age of “deconstructionist relativism,” following a rationalistic and positivist era, Metzner can already discern aspects of a consistent world-view emerging from the separate disciplines. There is cultural historian and “geologist” Thomas Berry’s evolutionary time covering more scale than 65,000,000 years from mammals to the emerging ecozoic era, “in which humans take their rightful place as members of the integral, interdependent community of all life”; there is the Gaia hypothesis, which sees the planet as a vast evolutionary organism; there

are the profound uncertainties of quantum physics; there is chaos theory. The old atomistic view of ultimate reality is, in Metzner's eyes, giving way to

a holarchy (nested hierarchy) of systems with complex multi-level interactions of phenomena from sub-atomic particles and atoms to galactic clusters and [the] universe.... In the post-modern philosophy of science, the reductionist orientation is complemented by integrative systemic perspectives including the possibility of divine causation "from above." This is, I believe, reflected in our attitude to archival materials, where the "bottom up" and "top down" approach is now in a kind of healthy tension, which perhaps makes Metzner's "nested hierarchies" an analogy worth pursuing.<sup>3</sup>

I should like now to take a closer look at some positions assumed by Thomas Berry and Matthew Fox, to whom I have referred before<sup>4</sup> and who currently hold a central place in my thoughts on archives and their relationship to culture and religion. For Berry we must now, in a sense, reinvent the human as species within the community of life species. Our sense of reality and of value must consciously shift from an anthropocentric to a biocentric norm of reference. We think of ourselves as ethnic, cultural, language or economic groups. We seldom consider ourselves as species among species,<sup>5</sup> except perhaps in biology. We are above all members of nations and other human allegiances; all our records reflect the implications of this. Records bearing witness to the equal validity and legal right of survival of the natural world are very limited by comparison. Prior to the modern period, liturgies celebrated the cycle through the seasons and from birth to death. "There was no functional awareness of an irreversible unfolding universe within developmental historical time,"<sup>6</sup> which has made cosmology impossible and has resulted in Berry's five ways in which civilizations transcended nature — which I have discussed elsewhere.<sup>7</sup> Consequently, in Berry's opinion, "[t]here is need for a *functional cosmology* ... once we consider that the universe, the earth, the sequence of living forms and the human mode of consciousness have from the beginning had a psychic-spiritual as well as a physical-material aspect"<sup>8</sup> — which should induce a sense of reverence transcending institutional religion.

I believe that a new cosmology will emerge along the lines suggested by Berry, which will not require us to commit intellectual suicide, but rather result in a holistic, planetary renaissance built upon "our experience in a dominant time-developmental mode of consciousness and with our empirical instruments of understanding"<sup>9</sup> in order to enrich rather than dominate our approach to the rest of nature.

Berry makes a clear distinction between genetic coding, which links us to the mystery of creation, and cultural coding, transmitted from one generation to another as a result of "special educational processes."<sup>10</sup> These must undergo significant changes, with which archives will be involved, together with the whole range of current heritage information and artefacts, if the paradigm shift discussed above is to occur.

This brings me to theologian Matthew Fox and his definition of the new cosmology, which is generally similar but more specific:

By the term "cosmology" I mean three things: a scientific story about the origins of our universe; mysticism, which is a psychic response to our being in the universe; and art, which translates science and mysticism into images that awaken body, soul and society. A cosmology needs all three elements to come alive: it is our joyful

response (mysticism) to the awesome fact of our being in the universe (science) and our expression of that response by the art of our lives and citizenship (art)."<sup>11</sup>

It is the last element which concerns us most as archivists and citizens.

It may be argued that I have strayed a long way from my theme, but this has been necessary in order to provide the basis for those societal changes over the next century (quite a short archival time) which will reintroduce humanity to the world of nature.<sup>12</sup> In this context, I do not believe that theology along the lines indicated is an optional addition.

We are already becoming less anthropocentric as we begin to recognize intrinsic values in other living systems and societies, and cease to treat them as irrelevant or simply as resources for exploitation. For instance, property and ownership, the hallmark of civilization and the subject of the earliest textual records, is a concept which still divides aboriginal peoples from immigrants, and many of the assumptions about possession are being called into question. National archives are the product or aspiration of nation states with political and economic systems now under severe stress, if not actually breaking down. As massive changes in centralized power structures are revealed, what will be the future of these archives? Metzner argues that all our long-held assumptions and social values, many of which are now coming under fire, "are cultural and not biological" (which is in line with Berry's "cultural coding"): "the alternative attitudes and values now being advocated in many circles are unconventional but not unnatural." I hope that the same also goes for my own observations about archives in this context.

What signs are there within our own profession that we are reacting in a sensitive way to these early beginnings of change? The examples which I shall choose is no sense constitute a definitive overview. Many are taken at random from recent articles in *Archivaria* and *The American Archivist*.

At the head of all these must stand Frank Burke's galaxy of right questions which he asked of a largely unresponsive audience in 1981. Very little has been done to answer them, yet we should strive to find answers if we are to make our way in an age where many of the old landmarks may be gone: "What is it within the nature of society that makes it create the records that it does?" asks Burke.<sup>13</sup> What records will be created and needed when the nature of society changes, as change it will? We would do well to study this relationship if we are to be responsive to changing needs; this is *not* the same as being user-driven, which is more reactive than proactive and far too specific and uncoordinated.

Arising out of Burke's article, the vigorous discussion on the relation of theory to archival practice has been quite fruitful, and many helpful insights are to be derived from it. It may be that he placed too much faith in theories derived from the scientific method and its objectivity. For John Roberts, archival theory overcomplicates and oversimplifies by turns; basic procedures do not need a complex philosophical component, and the complex relationships involved in the analysis and appraisal of records, for instance, defy any theory which attempts to allow for all circumstances.<sup>14</sup> This is a warning which should be heeded, as we so easily fall into the trap of a scientific reductionism and technological structures inappropriate to archives. We are not arm's-length observers testing hypotheses because, although we can control the physical form of documents, their content and meaning become a part of our own subjectivity and make general application

particularly elusive. The word “theory” has its roots in the Greek *theoros*, spectator; we do not experience that kind of detachment any more than the historians. We can and must think at times in terms of ideas, abstractions, metaphors, paradoxes, hypotheses, and the like, as one means of sharpening our perceptions. “Information is of course an ‘idea’ — in its broadest sense as the representation of the intellect,”<sup>15</sup> and must in turn be subjected to rigorous scrutiny. I am reluctant to attach the term “theorist” to those who in effect think as all archivists should, nor do I favour the term “archival science” unless used in its literal sense as *scientia* or knowledge. However, I strongly disagree with Roberts when he claims that archival work is “intrinsically, inescapably ad hoc,” that archivists are reactive and dependent, that we are trapped in our social and intellectual milieu, and “cannot set about filling gaps until somebody recognizes they exist.”<sup>16</sup> It is our responsibility to move beyond conventional wisdom, and away from that passive response to the status quo which Howard Zinn deplored in an article which *The American Archivist* would not publish at the time.<sup>17</sup> We have to play our part in recognizing changes in outlook at an early stage.

Frederick Stielow’s response to Roberts is based on a definition of theory as “systematically organized knowledge applicable in a relatively wide variety of circumstances,”<sup>18</sup> the result of hypotheses and empirical testing; he quotes Henry James that theories are instruments, not answers. This embraces much of the work done in the development of descriptive standards, which is essential if we are to have a common language of automated identification. For Stielow the study of archives is above all a metadiscipline,<sup>19</sup> and this is precisely its strength in the context of the ecological age. The fact that archivists cannot be labelled or defined is perhaps a source of hope rather than despair, and will encourage multidisciplinary generalists in place of the “specialist” of whatever stripe; therein lies the paradoxical rigour of our professional education, which the requirements for the new graduate degrees and other related programmes are now recognizing.

Especially at the present time, there is a close relationship between archival theory, however defined, and the technology of automation. Real dangers exist of diminishing the archivist as the human component of research which the data bank cannot replace.<sup>20</sup> The challenge which faces us, in particular our embrace of a new cosmology such as Matthew Fox proposes, and the difficulty which we have in making the effort, quickly reveals our heavy dependence on “left brain” thinking, which stresses the logical, mathematical, linear, detailed, sequential, analytical, and intellectual approaches so prominent in our culture. Often they are at the expense of lost contributions from our holistic, artistic, symbolic, intuitive, emotional “right brain.” Recalling that we drew before we could read and write, I enrolled in a drawing course along the lines of Betty Edwards’s *Drawing from the Right Side of the Brain*, which has — I believe — some relevance to our profession.<sup>21</sup>

When, as adults with no formal training, we sit down to draw a human figure, the result is quite literally childish and we decide that art is not for us. We look at the subject, but our left brain *knows* what an eye or an arm or a hand should look like on paper and down goes a stock symbol reminiscent of childhood. Young children, who have not yet come under the spell of Berry’s “cultural coding,” have an instinct for emphasizing the essentials of what they want to express through the consistent use of their own pictorial conventions, in effect their own pictograms for heads and bodies and so on. As time goes by, literacy has them striving for likeness, accuracy and realism — which defeats them. Their spontaneity disappears and their cramped and wooden images are

frozen in the left brain. On the course we were taught to follow the contours of our model with our charcoal sticks, looking far more at the model than the paper. This helps us to eliminate left brain's memory of familiar objects, and requires a fresh and sensitive line, while we try to forget that the subject is a body. The cumulative effect, after a few hours of this exercise, has been astonishing. The left brain becomes impatient with all this observation of detail, the old symbols fade away, and we begin to learn to draw.

Pattern recognition is a powerful answer to information overload. Do we search for the pattern with our left or right brain? Is there too much fragmented analysis confused by an overlay of stereotypes from our left brain, or do we bring to bear right-brain holism and intuition in order to help trace accurately the total parameters of the overload? We can then use our left brain not to say, "I know what a data bank on the theme of X more or less contains," but for the subsequent record and analysis of what is significant.<sup>22</sup>

Relationships too have an artistic counterpart called "negative space," such as between the girders of a bridge, and one exercise is to draw the negative spaces of a chair to produce the "positive" chair. When we as archivists appraise, do we wish to see the pattern of content while ignoring contextual relationships which may have a profound bearing on our decision, including absent information? Edwards calls these techniques "information processing,"<sup>23</sup> which has a familiar ring.

Extending this idea and assuming a vastly increased element of pictorial symbols and systems for the conveyance of information through virtual reality, virtual documents and the mixed media of hypertext, over and above automated archives as we currently know them, would it be possible to design profiles of the documentary flow and information capture in an institution, along with diagrammatic relationships (after the manner of a web-chart) for all documentary material in a department or institution? Could the relative importance of the material be made visible in its totality for both hemispheres of the brain to work upon and, if necessary, set alongside of the records of another agency for comparison and contextual understanding, all the time avoiding too much detail?

R.S. Wurman's "information anxiety" from overload can often be resolved by maps rather than by tabulation.<sup>24</sup> The age of ecology may see us mapping our information with the double helix and other natural databanks as model or metaphor. J.B. Harley believes that we still have too narrow a view of what mapping is: "In our western culture, at least since the Enlightenment, cartography has been defined as a factual science. The premise is that a map should offer a transparent window on the world,"<sup>25</sup> accurate and without bias — which of course is an illusion. Harley maintains that maps can be discussed as text rather than as a mirror of nature, regarding maps as "texts" in the same sense as other non-verbal sign systems.<sup>26</sup> Maps of archival and information patterns could therefore be conceived of as textual description, without the linear characteristics of prose leading to left-brain dominance and analytical fragmentation at the outset.<sup>27</sup>

David Bearman has given us what would seem to be a remarkably prophetic work, entitled all too prosaically *Archival Methods*.<sup>28</sup> He deliberately offers no new theory or technology, but suggests new approaches which are more in tune with the times. Appraisal and acquisition based on the preservation of a representational record of human culture are abandoned as considerations of value are substituted for risk management: What can we not afford to destroy?<sup>29</sup> To my mind, archives, along with other heritage institutions, have in a sense been marginalized by a technological society which sees

them as the source of a harmless leisure activity in pursuit of history and “culture” generally.<sup>30</sup> At the same time, archives have been given an almost unlimited licence to acquire, provided the exercise does not cost too much, and our success is often measured in the linear metres of full shelves. Bearman, on the other hand, argues that those government records retained should be records which we need for our identity and protection as citizens and for the conduct of our lives; that, conversely, records which cease to have continuing value should be destroyed through retrospective reappraisal:

We tell ourselves that society values our efforts for their balanced contribution to posterity, but I will argue that our role is more closely akin to that of the storyteller remaking the past in a fashion relevant to our time.... Our value rests with the contribution we make to the continuity of culture by connecting the present with the recent past, not be passively conserving the evidence of a distant past for the unmeasurable benefit of some equally remote future.<sup>31</sup>

This recycling of the past for the sake of the present places the record at the centre of our lives, and not detached in some genteel academic ghetto of the mind.<sup>32</sup> Let the future understand our world on the basis of what we need, just as we have come to understand the Middle Ages through the skills of the historian working on the great series of vital government records as the essential basis. What, then, of the private sector? I am not sure that this approach is quite so applicable, but we can still be more selective than we are now, gathering material in the context of documentation strategies based on present societal needs,<sup>33</sup> not just those of Ph.D. candidates. As it is, the evidence of the more distant past is terminally wasting away as a result of age, pollution and obsolete technology. Let us use it while it is still “alive.” In any case, however, our selection was never neutral or objective but, like the writing of our users, the historians, reflective of the myths which are part of our culture.<sup>34</sup> In failing to recognize this fact, archival repositories may become a “museum of communications and not a living cultural entity,”<sup>35</sup> especially if we neglect essential networking with records managers, “where numerous, small data archives in an organization are like isolated gene pools, inbred, narrow and lacking the strength which comes from cross fertilization”<sup>36</sup> (shades of Thomas Berry!). Through all of this the presence of the archivist is vital, since “in manual retrieval systems the human mind makes leaps across categories which are not supported by existing mechanisms in automated systems.”<sup>37</sup> Citing M. T. Clancy on the emergence of the written record in England, Bearman portentously asks whether there will be a divergence away from the textual record as it loses its credibility as evidence in the face of slippery electronic software.

I have left mentioning until last an article clearly grounded in the age of ecology. Many others discussed above deal with more effective ways of conducting archival business, but these could have been put in place within a continuation of our present assumptions; not so Candace Loewen’s article on the appraisal of environmental records.<sup>38</sup> She covers some familiar ground on the consequences of the Enlightenment and its antecedents, but many of her sources and insights are fresh to me, especially those on environmental history written by women and including the ecology of the Ancient World. Loewen emphasizes the dominance of patriarchy through the centuries — it is still with us and accounts for many of our problems — and the role of gender in this context.<sup>39</sup> Using all this as a background, she then deals specifically with issues relating to the records of the Atomic Energy Control Board. The extent to which records have a bearing on the natural world should be one of the first considerations in archival appraisal. Sensitive recognition of

the implications of our present dilemma will be hard-won nevertheless, since we are children of the industrial age and our parentage will continue to show for some time.

What will be archivists' professional environment in the Age of Ecology? The world around us will certainly not be an ideal arcadian utopia, as Berry warns us. Growth and change often produce hardship, stress, privation and violence.<sup>40</sup> The failure of the present global economic system to encourage social justice and a developing sustainability of natural resources may end in turmoil and collapse, which would greatly weaken the structures of centralized government. Out of this could emerge in time a network of bio-regions and "soft energy paths," relatively self-supporting. In the aftermath of a consumer society, the necessities of life may become more expensive as the social costs are built in, but they will be simple, of good quality, and designed to last. Reliance on fossil fuels will be drastically cut; citizens will increasingly gain satisfaction from the qualities of their own region. In contrast to the trends towards simplifying lifestyles, information in all its forms will be global in outreach, easily and cheaply available. Government at all levels will be decentralized, "smaller," more responsive to citizens and more diverse, few reminders surviving of the old industrial bureaucracies largely built upon the paper record in a mass society. The gleaming techno-culture of the future, residing in vast cities surrounded by sanitized greenery, is a projection of our industrial mind-sets and the centralized corporate ideal of the multinationals, which remains a real threat to ecological solutions. This is not the place in which to rehearse detailed scenarios, but we should nevertheless try from time to time to envision generations beyond our own, the better to prepare for them. Serious futurologists such as Hazel Henderson<sup>41</sup> can be of help and so can the more literary science fiction.

In my view, there is likely to be a demand for a kind of integrated history which might well encompass the whole planet, indicating trends in the lives of humans and other species in a symbiotic relationship which will require vast areas of automated compatibility in order to detect significant patterns. Displayed on such a broad canvas, the result will be mythic in extent. The bio-regions will receive similar attention, but one wonders whether the byzantine affairs of the old national governments will ever again engage the creative imaginations of future writers once they pass from the scene. Departments of the environment may likewise have disappeared, as both public and private sectors will be deeply involved in the natural world at all levels as part of the art of living.

Unlike today, it will be increasingly difficult to single out "cultural activities" as being "over and against" the rest of life. The dichotomies inherent in "work" and "play" will likely be resolved as work becomes more playful and play is recognized as something which we need to work at as part of human nature. Generations to come will value documentary evidence which reflects the public temper of the age, and in particular the heroic efforts made to reverse the rush to disaster; pioneer work done by individuals and organizations which has always preceded commitment by governments. The danger is that the records of the old discredited industrial age will be neglected by the politically correct, as were those of the Dark and Middle ages by the Enlightenment.

Although their roles will remain distinct in many ways, libraries, archives, art galleries, museums and theatres will work far more closely together as they all celebrate the richness of past and present life on earth. The possibilities of virtual reality and virtual documents are enormous as a means of re-creating past and present environments not otherwise accessible. Family histories will increase in popularity as families become

grounded in their bio-regions and become more conscious of their place in nature. Automation will allow families to secure and disseminate their archives around their homes and through time, so that each generation will be able to enter into and assume as a mask the lives of their ancestors.<sup>42</sup>

While the nineteenth century rediscovered history as we have come to know it and the old record-keepers provided the major source materials, the twentieth century rediscovered the complexity of information,<sup>43</sup> and modern archives are now in danger of falling into the clutches of information scientists. We archivists must nevertheless follow our own path, where the verifiable record remains central to our concerns. We should be wary of hypertext's siren song luring us onto the reefs of lost provenance. At the same time, we shall join with other heritage professionals in order to make leaps of the imagination from documents to the artefacts of "material culture," to art and (why not?) to literature and theatre, always bearing in mind that the origin and context of human heritage lies in life-forms which antedate and still surround us. The new age will see a conceptual fusion of these phenomena as we strive to live in the shadow of our ancestors and their fellow creatures as parts of the whole.<sup>44</sup>

I suspect that I could be accused of advocating politically correct attitudes under the cover of professionalism. Others will see these impressions as hopelessly idealistic; the wholesale destruction of life on this planet through neglect or violence may proceed beyond the point of no return. That might well happen, in which case the documentary heritage could disappear as well, and a break in cultural continuity would pose communication riddles for some phoenix intelligence rising from the ashes.<sup>45</sup> I prefer to believe that this agenda will not proceed — at least not to the very point of extinction — because behind our speck in the universe is a caring God delighting in creation, a mystery beyond description and anthropomorphism. The glass remains very dark, but a pattern of living has been revealed to us if we shall but accept it.<sup>46</sup>

### Notes

- 1 Ralph Metzner, "Age of Ecology," *Resurgence* No. 149 (November/December 1991), pp. 4-7.
- 2 Automation is a challenging mix of the logical lineality of software design, the traditional mechanism which operates the "drives" and the holistic impact of automated communication systems. Terry Cook has recognized a move away from the first generation of computers, based on content, to a second generation based on "context, relationships and functionality" where automated records cease to be "machine readable" and become "electronic." See his review article, "Easy to Byte, Harder to Chew: The Second Generation of Electronic Records Archives," *Archivaria* 33 (Winter 1991-92), pp. 202-16.
- 3 This healthy tension is apparent in Richard Brown, "Records Acquisition Strategy and Its Theoretical Foundation: The Case for a Concept of Archival Hermeneutics," *Archivaria* 33 (Winter 1991-92), pp. 34-56; Terry Cook, *The Archival Appraisal of Records Containing Personal Information: A Ramp Study with Guidelines* (Paris, 1991); Terry Cook, *An Appraisal Methodology: Guidelines for Performing Archival Appraisal* (Ottawa, 1992).
- 4 Hugh Taylor, "The Totemic Universe: Appraising the Documentary Future," Christopher Hives, ed., *Archival Appraisal Theory and Practice* (British Columbia, 1990), pp. 15-29.
- 5 Thomas Berry, *The Dream of the Earth* (San Francisco, 1988), p. 21.
- 6 *Ibid.*, p. 27.



- 7 Taylor, "The Totemic Universe."
- 8 Berry, *The Dream of the Earth*, p. 66.
- 9 *Ibid.*, p. 21.
- 10 *Ibid.*, pp. 92-93.
- 11 Matthew Fox, *The Coming of the Cosmic Christ* (San Francisco, 1988), p. 1, note.
- 12 Stephen Toulmin, *The Return to Cosmology: Post-Modern Science and the Theology of Nature* (Berkeley, 1982), p. 256. The scientist, says Toulmin, is no longer the spectator (Greek, *theoros*) but must work inside nature: "We need to discover in what respects and on what conditions the world of nature can continue to provide a home for humanity," p. 265.
- 13 Frank G. Burke, "The Future Course of Archival Theory in the United States," *American Archivist* (Winter 1981), p. 42.
- 14 John W. Roberts, "Archival Theory: Myth or Banality?" *American Archivist* 53, no. 1 (Winter 1990), p. 111.
- 15 Terry Cook, "Leaving Safe and Accustomed Ground: Ideas for Archivists," *Archivaria* 23 (Winter 1986-87), p. 124.
- 16 Roberts, "Archival Theory," p. 116.
- 17 Howard Zinn, "Secrecy, Archives and the Public Interest," *Boston University Journal* 19 (Fall 1971), pp. 37-44.
- 18 Frederick J. Stielow, "Archival Theory Redux and Redeemed: Definition and Context Toward a General Theory," *American Archivist* 54, no. 1 (Winter 1991), p. 17.
- 19 Stielow, "Archival Theory," p. 21; see also Terry Eastwood, "Nurturing Archival Education in the University," *American Archivist* 51, no. 3 (Summer 1988), pp. 229-52.
- 20 Hugh Taylor, "Chip Monks at the Gate: The Impact of Technology on Archives, Libraries and the User," *Archivaria* 33 (Winter 1991-92), pp. 173-80; Terry Cook, "Viewing the World Upside Down: Reflections on the Underpinnings of Archival Public Programming," *Archivaria* 31 (Winter 1990-91), pp. 123-34.
- 21 Betty Edwards, *Drawing from the Right Side of the Brain* (Los Angeles, 1979), 207 p. Terry Cook has reminded me that when pictograms came to be used in the Ancient World as a rather primitive alphabet, textual richness and context were increasingly lost because of this very left-brain-influenced representation. I am also grateful to Robin Wall, artist and teacher, for his help in this connection.
- 22 Edwards, "Crossing Over: Experiencing the Shift from Left to Right," *Drawing*, pp. 46-59. Archivists of documentary art and photography will be particularly familiar with this phenomenon.
- 23 *Ibid.*, p. 35.
- 24 R.S. Wurman, *Information Anxiety* (New York, 1989), pp. 260-90.
- 25 J.B. Harley, "Text and Contexts in the Interpretation of Early Maps," D. Buisseret, ed., *From Sea Charts to Satellite Images: Interpreting North American History Through Maps* (Chicago, 19[?]), p. 4.
- 26 *Ibid.*, p. 4.
- 27 For a more philosophical approach to maps as text, see J.H. Andrews, "Maps and Language: A Metaphor Extended," *Cartographica* 27, no. 1 (Spring 1990), pp. 1-19. I am indebted to Ed Dalh of the National Archives for drawing my attention to this paper and that by J.B. Harley above.
- 28 David Bearman, "Archival Methods," *Archives & Museum Informatics Technical Report* 3, no. 1 (Spring 1989), 67 p.
- 29 *Ibid.*, p. 16.

- 30 Hugh Taylor, "Information Ecology and the Archives of the 1980's," *Archivaria* 18 (Summer 1984), pp. 25-37.
- 31 Bearman, "Archival Methods," p. 59.
- 32 All the more reason for us to be sensitive to our cultural blindspots and therefore be better able to minimize them. Bearman warns us nevertheless that "cultural blindness and sudden cultural insights are both equally culture bound": "Archival Methods," p. 62.
- 33 Helen W. Samuels, "Improving our Disposition: Documentation Strategy," *Archivaria* 33 (Winter 1991-92), pp. 125-140.
- 34 "Myth" in the technical sense is open to many definitions, and in a way defies definition. Joseph Campbell, in *The Power of Myth* (New York, 1988), is evasive of abstract formulations, because that is exactly what myths are *not* about. Bill Moyers, who interviewed Campbell, summarizes his views thus: "Myths are stories of our search through the ages for truth, for meaning, for significance. We all need to tell our story and to understand our story.... We need for life to signify, to touch the eternal, to understand the mysterious, to find out who we are," *The Power of Myth*, p. 4. For Campbell today, there are no boundaries. The only mythology which is valid today is the mythology of the planet — and we do not yet have such a mythology (*The Power of Myth*, p. 28). This echoes to some extent Fox's new cosmology, discussed above.
- 35 Barbara L. Craig, "Meeting the Future by Returning to the Past: A Commentary on Hugh Taylor's Transformations," *Archivaria* 25 (Winter 1987-88), p. 9.
- 36 *Ibid.*, p. 9.
- 37 Bearman, "Archival Methods," p. 51.
- 38 Candace Loewen, "From Human Neglect to Planetary Survival: New Approaches to the Appraisal of Environmental Records," *Archivaria* 33 (Winter 1991-92), pp. 87-103.
- The first section of the article seeks to explain how our long-standing neglect of the consideration of the whole, or context, has led to the deplorable state of the environment —and of archives, "especially with regards to appraisal." Section two emphasizes that "nature is a perception dependent on the perceived world view," and that archivists should be aware of this. The third section discusses "survival" values in the appraisal of environmental records, using the Atomic Energy Control Board as an example.
- On a quick perusal, this article would seem to be no more than an archival recognition of the records of the environment appropriate to this age of ecology and comparable to the emphasis in the 1970s on quantitative sources, such as parish registers and case files, which reflected the emergence of a new sense of "people power" — in other words, more traditional, value-laden appraisal reflecting sensitivity to current issues. In fact, the article takes a position outside the bureaucracy, which is highly contextual and critical of the bureaucratic mind-set that also afflicts us as archivists. This is Terry Cook's reading, and mine also. Loewen is concerned about records which have a bearing on our planetary and cultural survival, not simply a new research field stimulated by social change.
- 39 For a similar view see also Berry, "Patriarchy: A New Interpretation of History," *Dream*, pp. 138-62, and Fox, *Coming*, Part I, pp. 12-34.
- 40 Berry, *Dream*, p. 216.
- 41 See for instance Hazel Henderson, "From Economism to Systems Theory and New Indicators of Development," *Technological Forecasting and Social Change* 37 (1990), pp. 213-33.
- 42 There is now an extensive literature on every aspect of planetary transformation. The critical bibliography compiled by Thomas Berry in *Dream* (pp. 224-40) is excellent; to it should be added Murray Bookchin, *Toward an Ecological Society* (Montreal, 1980).
- 43 Stielow, "Archival Theory," p. 20.

- 44 This from Madeleine L'Engle, *A Stone for a Pillow* (Wheaton, Ill., 1986), p. 42: "In a recent article on astrophysics, I came across the beautiful and imaginative concept known as the 'butterfly effect'. If a butterfly ... should be hurt, the effects would be felt in galaxies thousands of light years away. The interrelationship of all Creation is sensitive in a way we are just beginning to understand."
- 45 On the theme of cultural continuity see Kenneth E. Foote, "To Remember and Forget: Archives, Memory and Culture," *American Archivist* 53, no. 3 (Summer 1990), pp. 378-392; in science fiction, moreover, Walter M. Miller, *Canticle for Liebowitz* (New York, 1959), and David Macaulay, *Motel of the Mysteries* (Boston, 1979). Both deal with strange attributions given to artefacts when there is a total cultural breakdown.
- 46 Finally, I should like to acknowledge the especially helpful comments, suggestions and citations provided by Terry Cook of the National Archives of Canada, which deserve far more than a note. His colleague Candace Loewen, moreover, has gently and quite rightly taken me to task for not drawing attention in this paper to the contribution made by women to the environmental discourse. She has already filled the gap most admirably in her own article (*supra*, note 38), and I shall not repeat her sources here.