

## Archiving cultures

### ABSTRACT

This paper argues that to understand the legitimacy of a culture we need to investigate its relation to the archive, the site for the accumulation of records. Archive reason is a kind of reason which is concerned with detail, it constantly directs us away from the big generalization, down into the particularity and singularity of the event. Increasingly the focus has shifted from archiving the lives of the good and the great down to the detail of mundane everyday life. One implication here is that rather than see the archive as a specific place in which we deposit records, documents, photographs, film, video and all the minutiae on which culture is inscribed, should we not seek to extend the walls of the archive to place it around the everyday, the world? If everything can potentially be of significance shouldn't part of the archive fever be to record and document everything, as it could one day be useful? The problem then becomes, not what to put into the archive, but what one dare leave out. Some of the implications of these questions were considered by Georg Simmel, in his argument that there has been a build up and overload in the production and circulation of objective culture. This is now beyond our subjective capacity to assimilate and order, given the finite limits of the human life course we all face. It is something which confronts the individual with irresolvable dilemmas over selectivity, with each particular choice amounting to a wager which inevitably closes off others. Related questions about the difficulties of handling cultural completeness, were also addressed by Jorge Luis Borges in his discussion of the Library of Babel and the Aleph. Yet both could hardly have anticipated the full implications of the electronic archive: the development of new technologies for storing, searching and communicating information through the Internet with its databases and hypertext links. The electronic archive offers new possibilities for speed, mobility and completeness of access to cultures which have become digitalized, which raise fundamental questions about ownership, intellectual property rights, censorship and democratic access. The implications for culture are clear: the new electronic archives will not only change the form in which culture is produced and recorded, but the wider conditions under which it is enacted and lived as well.

**KEYWORDS:** Archive; culture; library; hypertext; Internet; database

Archive keeping is essential for a civilized community.  
*Chambers's Encyclopedia* Vol. I. (1959: 570/1, q in OED)

The archive is also a place of dreams.  
 (Steedman 1998: 67)

Nothing is less reliable, nothing is less clear today that the word 'archive.'  
 (Derrida 1996: 90)

## INTRODUCTION

As we enter the new millennium with its prospect of increased cultural complexity, it should be remembered that we are by no means the first generation to feel overwhelmed by the speed, scope, intensity and volume of cultural production and reproduction. Writing in 1911, in an article entitled 'The Concept and Tragedy of Culture', published in the new journal *Logos*, which aspired to create a forum for a new philosophical culture, Georg Simmel (1997a: 73) observed the growing imbalance between objective and subjective culture remarked

There thus emerges the typical problematic condition of modern humanity: the feeling of being surrounded by an immense number of cultural elements, which are not meaningless, but not profoundly meaningful to the individual either; elements which have a certain crushing quality as a mass, because an individual cannot inwardly assimilate every individual thing, but cannot simply reject it either, since it belongs potentially, as it were, to the sphere of his or her cultural development. One could characterize this with the exact reversal of that saying, '*Nihil habentes, omni possidentes*', which characterized the blissful poverty of the early Franciscans in their absolute liberation from all things that would somehow still tend to divert the soul from its path through themselves and thereby make it an indirect route. Instead of that, human beings in very rich and overburdened cultures are '*omnia habentes, nihil possidentes*'.

The condition of potentially having everything, but possessing nothing, suggests that the stock of objective culture has gone beyond the absorptive capacity of human beings, who must work within the limits of what can be assimilated within a finite life course. For Simmel (1997b: 102) the individual could not keep pace with the vast accumulation of 'culture of things, of institutions and objectified ideas' which 'robs the individual of any consistent inner relationship to culture as a whole and casts him back again on his *own* resources' (Simmel 1997b: 102). Hence Simmel draws attention to the failure of subjective culture to deal adequately with the problem of selectivity, manifest in the arousal of fleeting aspirations and the rootless, arbitrary character of modern life.

Simmel (1997c: 256) also saw this process of the accumulation of objective culture in terms of the development of the world-city in which 'a single

city broadened into the totality of world production'. The world fair or trade exhibition was particularly important here as it concentrated the whole world in one place, not only in terms of the collection of exhibits, but the way in which it becomes a place 'to which the whole world sends its products and where all the important styles of the present cultural world are put on display'. But it is not only a question of the accumulation of styles and goods which are sent to the city for consumer culture activities such as world exhibitions, but also the ways in which the city's own manufacturing and culture industries replicate and reproduce this cultural repository. Hence Simmel concludes that through 'its own production a city can represent itself as a copy and a sample of the manufacturing forces of world culture'.<sup>1</sup>

Many themes are evident in Simmel's work which resonate with contemporary preoccupations: the concern with the overload of cultural production, the loss of a sense of cultural bounded-ness, centricity and order, the fragmentation of culture, the dominance of life over form, the overload of culture which becomes impossible to assimilate. There is also the sense of an expanding consumer culture and the genesis of world cities that leads to the globalization of culture and the increase in the volume of cultural production and reproduction beyond our capacity to recover the various cultural objects, images and fragments into a framework through which we can make sense of it. These aspects of Simmel's work have persuaded some commentators that he can be identified as postmodern *avant la lettre* (Weinstein and Weinstein 1991; Featherstone 1991). Yet there is a further aspect here which needs drawing attention to: in his essay on the Berlin Trade Exhibition which is quoted from in the previous paragraph, Simmel (1997c: 256) remarks that 'It is a particular attraction of world fairs that they form a momentary centre of world civilization, assembling the products of the entire world in a confined space as if in a single picture.' While he cautions that this unity can only be apprehended as 'a floating psychological idea', the contiguity of objects and styles in a physical location also gives it an illusory objective unity and finitude summoned up in his use of terms such as 'totality', 'single whole', and 'copy'.

Simmel's reference to 'the whole world in a confined place as if a single picture', resonates with Jorge Luis Borges's short story 'The Aleph', written in 1949. Borges (1999a: 281) refers to the Aleph as 'the place where, without admixture or confusion, all the places of the world, seen from every angle, coexist'. It was 'a small iridescent sphere of almost unbearable brightness . . . probably two or three centimetres in diameter, but universal space was contained inside it, with no diminution in size' (Borges 1999a: 283). He goes on to elaborate

Each thing (the glass surface of a mirror, let us say) was infinite things, because I could clearly see it from every point in the cosmos. I saw the populous sea, saw dawn and dusk, saw the multitudes of the Americas, saw a silvery spider-web at the centre of a black pyramid, saw a broken

labyrinth (it was London), saw endless eyes, all very close . . . saw clusters of grapes, snow, tobacco, veins of metal, water vapor, saw convex equatorial deserts and their every grain of sand . . . saw every letter of every page at once . . . saw simultaneous night and day . . . saw tigers, pistons, bisons, tides, and armies, saw all the ants on earth, saw a Persian astrolabe . . . saw the circulation of my dark blood, saw the coils and springs of love and the alterations of death, saw the Aleph from everywhere at once, saw the earth in the Aleph, and the Aleph once more in the earth and the earth in the Aleph.

The Aleph actualizes the dream of completeness, of possessing the whole world and human culture in an accessible form. Its visual form, in which we peer at something akin to a high-definition hologram, offers an immediacy and self-evidentiality; we directly see the world and its contents, past and present; in this sense it is nearer to life than culture. Borges says nothing about our ability to control the Aleph and direct what we see, but seems to imply its agenda is out of control, or at least beyond our control, that it effortlessly and seamlessly pulls out and zooms in to minutiae, creating a bewildering flow of spinning images which provides a high degree of instantiation.

There is another Borges short story, 'the Library of Babel', which addresses the same theme of cultural completeness, but here the focus is upon text rather than image/life. Borges (1999b: 112, 115) tells us that the Library is composed of 'an indefinite, perhaps infinite number of hexagonal galleries' which house books which are comprised of 'all the possible combinations of the twenty-two orthographic symbols . . . that is, all that are able to be expressed, in every language'. He adds that

When it was announced that the Library contained all books, the first reaction was unbounded joy. All men felt themselves the possessors of an intact and secret treasure. (Borges 1999b: 115)

In fact, the Library is so huge that if millions of volumes were wantonly destroyed, any reduction would be infinitesimal as although each book is unique and irreplaceable 'there are always several hundred thousand imperfect facsimiles – books that differ by no more than a single letter or a comma' (Borges 1999b: 116). The narrator goes on to speculate that although he suspects that the human species is on the verge of extinction, the Library will endure. Commenting that 'those who picture the world as unlimited forget that the number of possible books is *not*,' the narrator concludes

*The Library is unlimited but periodic. If an eternal traveler should journey in any direction, he would find after untold centuries that the same volumes are repeated in the same disorder – which, repeated, becomes order: the Order.* (Borges 1999b: 118)

Here we have two contrasting images of culture. On the one hand there

is the Library, a collection of texts which while they possess an order in the sense that there are repetitions, gives little overall sense of order in terms of meaning or logical schemata. Various scholars of the archive journey through it in the search for some ultimate order or meaning, or seek to mystically summon it up, without success. The architecture of the archive while possessing order in the uniformity of its galleries and bookshelves, the format and length of books, the type of orthographic symbols used, this itself does not facilitate a uniform classification of the books. Many people have tried to produce catalogues and systems of classification, but have been defeated by the sheer scope of the problem. The Library amounts to an unmanageable labyrinth to get lost in. In one sense the Library is always already in ruins. Hence, while the pendulum swings heavily on the side of completeness in terms of housing almost all possible imaginable books, it also swing heavily towards disorder as opposed to order, in terms of our capacity to handle, chart or make sense of it. In terms of the Simmelian dichotomy it represents the overload of objective culture which swamps subjective culture. On the other hand, the Aleph stands for life in its immediacy. There is no mediating code or textual system between the viewer and the world. Although it is a metaphysical or mystical concept, from the perspective of our time it can best be understood as a form of vision machine, a 'static vehicle' in the line of descent which runs from the cinema, to television, digital multimedia and virtual reality, which can instantly and effortlessly transport us into the heart of distant things (Virilio 1999; Armitage 1999).<sup>2</sup> The Aleph anticipates the shift in the nature of the interface from screens, to sentient rooms, to virtual environments. It also anticipates the drive towards empowerment through miniaturization, being only a few centimetres across. It offers speed, flexibility and mobility of images, along with completeness and effortlessness of access.

While the Aleph fulfils many aspects of the dream of technological reason, it can be related to a further image of the accumulation of objective culture: William Gibson's depiction of cyberspace in his novel *Neuromancer*

A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts . . . A graphic representation of data abstracted from the bank of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights receding . . . (Gibson 1986: 51)

In this fictional world, cyberspace is a global electronic information network, 'the matrix', which operators can access ('jack-in') through headsets ('trodes') via a computer terminal ('cyberspace deck'). Once in the matrix operators can 'fly' and zoom into any part of the three-dimensional virtual reality system of data coded into various colourful iconic architectural forms laid out beneath her like a vast metropolis: a city of data, a Borgesian library of vast databases containing all a culture's deposited wealth,

where every document is potentially available, every recording playable and every picture viewable (see Featherstone and Burrows 1995). While Gibsonian cyberspace scores high on the level of completeness, as a parallel world which has replicated all of objective culture, the virtual world contains many of the same power struggles which dominate the access to information in the everyday world. Hence there are electronically protected no-go areas, especially the military and corporate databases, and there is a continuous struggle for information which entails a continuous cycle of intelligence gathering, spying, counter-intelligence and surveillance.

We are currently being faced by the 'digitalization of culture' which promises enormous gains in the speed and mobility of access to information. Nevertheless many of the questions raised by Simmel, Borges and Gibson still importantly remain. Can the expansion of culture available at our fingertips be subjected to a meaningful ordering; or is the desire to remedy fragmentation to be seen as clinging to a form of humanism with its emphasis upon cultivation of the *persona* and unity which are now regarded as merely nostalgic as we begin to explore post-human forms? What potential transformations of the human sensory apparatus and habitus will occur as all cultural production and consumption becomes increasingly mediated through information technologies and people have to learn to inhabit technological cultures? To what extent will the scope and expansion in the availability and ease of access to cultural sources increase our concern for detail and complexity? Something which leads to the related problems of closure, of drawing boundaries around a work, both in conception and execution (the use of hypertext to move between and jump across electronic texts, being a central aspect which will be discussed below). If we are faced by a vast unbounded sea of data, how will navigation be managed and legitimated? Will disintermediation, the direct access to cultural records and resources from those outside cultural institutions, lead to a decline in intellectual and academic power or will the increased scope and complexity overwhelm the untutored user and lead to greater demands for reintermediation, involving the context framing and mapping skills of cultural intermediaries?

It has often been observed that sociology developed its referent 'society' as a generic type in close relation to the needs of the nascent state in order to establish itself as a bounded separate administrative entity. This led to the neglect of analysing the relations between states, or social and cultural phenomena which were formed beyond, or disputed the authority claims of the state (Tenbruck 1994; Wallerstein 1991). If libraries, museums, archives and other cultural repositories developed in conjunction with the state we need to consider the trajectory of the power struggles between state elites, administrators and wider publics over their aims and purposes. Yet what happens when we move to widen the cultural frame of reference beyond the authority of the state to take into account globalization processes, the increased flow of information, images, goods, money and people (Appadurai 1990; Lash and Urry 1994)? Is this merely to be considered as

a process of state deregulation, or are there processes of reregulation beginning to take place on a transnational level that could lead towards the development of global cultural institutions and a global public sphere?

If one of the potentials of the new communications technologies is to further the development of transnational public spheres (Appadurai 1996), it is also clear that the driving impetus behind globalization has been the use of information technologies by transnational corporations extending their scope through the development of electronic networks. Information and culture are valuable commodities, hence corporations have been setting up their own electronic archives and databases for commercial purposes. One of the potentials of the new information technologies such as the Internet is for new principles of classification and connectivity to develop, such as hyper text, which favours serendipity and the establishment of less hierarchical linkages. Yet if the capacity to jump out of one text into another is regulated by market imperatives, and every access point beyond one's own little domain into the collective virtual archive entails passing through an electronic toll-gate, then the potential for a genuine global public cultural archive is diminished. With this one might add, also rides the future of the university, for the growth of private universities in many parts of the world and the establishment of consortia to develop Internet universities with global scope in the USA, not only establishes a new relationship between the state and higher education, but also will produce a different relationship to the library, the archive and cultural repositories which stand behind the canon and syllabi. In short who will archive cultures in the future – the state, or the corporations, or the public?

#### THE ARCHIVE

The *trouble de l'archive* stems from a *mal d'archive*. We are *en mal d'archive*, in need of archives . . . It is to burn with a passion. It is never to rest, interminably, from searching the archive right when it slips away. It is to run after the archive, even if there's too much of it, right where something in it anarchives itself. It is to have a compulsive, repetitive, and nostalgic desire to return to the origin, a homesickness, a nostalgia for the return to the most archaic place of absolute commencement. (Derrida 1996: 91)

According to Derrida (1996: 2) the term archive derives from the Greek *arkheion*, a term which first refers to a house which is 'the residence of the superior magistrates, the *archons*, those who commanded'. It was a place where official documents were filed, with the *archons* not only acting as the guardians of the documents, but also having the hermeneutic right to interpret the archives and speak the law.<sup>3</sup> This involves what Derrida (1996: 3) refers to as 'the archontic principle', the archive requires that the documents are gathered together in some place. Something which entails the power of *consignation*, that the documents are coordinated together into a

single system that possesses a unity of identification and classification, which ensures that there cannot be any separate or secret cache. While the archive thus conceived was one source for the sovereignty and legitimacy of rulers and power holders, the grounds for the law and the knowledge base for the identity of the collectivity, it has also been increasingly seen as the repository of the national memory.<sup>4</sup> The archive is the site for the accumulation of primary sources from which history is constructed (Lynch 1999: 67). This does not mean that what goes into the archive is not the source of overt and covert struggles – far from it.

There is a politics of the archive given its role in grounding authority and the social order and a struggle to turn archives from a private, or restricted access place into one of open public access. The Greek model is, of course, not the only model of the archive, Le Goff (1992) refers to the ways in which archives, along with other ‘memory institutions’ such as museums, and libraries were tied to monarchical power. He tells us that in Zimri-Lum’s palace in Mari (c. 1785 BC) numerous tablets were found in an archival centre; other early royal palaces housed diplomatic, financial and administrative archives (see Osborne 1999: 54–5).

With the development of the modern state the archive becomes a place for the accumulation and storage of administrative records. There is a tension here between the assembly of archival materials for immediate use, for governmentality and state intelligence and the development of an open public archive that is the repository of the national memory. This tension is not just one of function, but also of scope. In the case of the development of the British Empire information gathering (encyclopaedic knowledge of other peoples) was crucial, both for purposes of administration and the larger aim of sustaining its power potential in the ‘the Great Game’ of the imperial power struggle for global hegemony within which it was locked. As Richards (1993: 14; cited in Hevia 1999: 239) remarks, ‘the archive was less a specific institution than an entire epistemological complex for representing a comprehensive knowledge within the domain of Empire’. This process required agents in and beyond the frontier regions of the Empire to seek out local knowledge, much of it with a strong empiricist base, after the rise of scientific method and statistics in the wake of the eighteenth century Enlightenment. This also entailed delving into other less accessible indeterminate archives, the alien archives of Indian and Chinese language sources.<sup>5</sup>

In England the Public Record Office was founded in 1838 as ‘the treasure house of the nation’s memory’, yet it was not until the Library Act of 1850 that the original concept of restricted access was modified in line with the notion of the liberal subject to allow the entry of in ‘one and all’ (Joyce 1999: 38). Likewise in France after 1870, Pierre Nora (1994–8) tells us that a professional positivist history was constructed which drew on the archive to constitute a ‘memory nation’ (Joyce 1999: 37). The archive formed the basis for the emergence of not only the national, but also the social and the close relationship between the national and the social which emerged in

the nineteenth century. With regard to Germany, Wolfgang Ernst (1999: 14) makes a distinction, borrowing a term from computing, between ROM (programmable read only memory) and RAM (random access memory). From 1806–1918 the network of Prussian state archives functioned as ‘a non-discursive juridical ROM,’ solely for the use of the bureaucratic system. The separation of those records which were still essential for state business from files which were seen as ‘simply’ historical value meant the separation of a RAM archive from a ROM one. A historico-cultural notion of the archive developed in the late-nineteenth century to challenge the legal paradigm with the development of German historicism and sought to include ‘all traces of human action’, putting the emphasis upon not just what is stored, but what of the present has to be processed, filtered and produced for the archive (Ernst 1999: 16).

The discipline of history, thus, placed a premium on ‘archival credibility’. The archive is a site for particular kinds of knowledge and styles of reasoning which legitimated a type of expertise: ‘the right to make statements about the past, about history, about change, about fate and by extension, in a deliberately delimited way, about the future; the right not necessarily to predict the workings of providence still less to dictate them, but to a certain kind of providential *seriousness*’ (Osborne 1999: 54). Archive reason is a kind of reason concerned with detail, it directs us constantly away from the big generalization, down into the particularity and singularity of the event. Yet this singularity is itself produced through a discriminating gaze and entails an ‘aesthetics of perception’ to enable the significant to be lifted out from the mass of detail. Given that detail can mean just about anything, the focus shifts to the mundane and everyday life; as Osborne (1999: 59) puts it: ‘If royal memory was a memory of the sovereign and great acts, the archival memory in its modern forms is a memory – even when it focuses on the great and the powerful themselves – of everyday detail’. From de Tocqueville onwards, the concern has been to focus not just on the singularity of great events but on the everyday, which is an effect of the collection of mundane information. We find this concern too in Foucault’s focus on how religious confession gives way to administrative confession, in which everything has to be registered in writing and accumulated in dossiers and archives (Osborne 1999: 61).

It is well-known that in *The Archaeology of Knowledge* (1972: 130) Foucault employed a broader non-empirical notion of the archive. Here the archive does not refer to the collection of documents, the archive as a site and institution, but ‘the general system of the formation and transformation of statements’. The archive, then, has a virtual existence and amounts to the system which governs the emergence of enunciations. For Foucault the archive is ‘the sum of all the texts that a culture has kept upon a person as documents attesting to its own past, or as evidence of a continuing identity’ (1972: 129, cited in Osborne 1999: 53). Yet the practice of Foucault’s writing took him into archival detail, to use the archive to write alternative histories and recover the commonplaces of ordinary lives. This resonates with the

writings of Stanley Cavell who argues that it is the mundaneness and inefability of the everyday that gives the ordinary something of the Freudian uncanny. He remarks that 'The everyday is what we cannot but aspire to, since it appears to us as lost to us'. He adds 'the world must be regained every day, in repetition, regained as gone.' (Cavell 1994: 171, 172, quoted in Osborne 1999: 62, 63). In effect archival reason provides a comforting routine repetition through its focus on the ordinary, in the face of the doubts, scepticism and relativism which history also induces. Once we take this broader view of the archive of culture it is clear that the commonplace and the everyday encompass vast realms of life and potentially anything can become significant for archival reason: the various personal collections in biscuit-tins, shoe-boxes and old suitcases in the attic, which are all around us (Bradley 1999). Here we think too of the photographic archives and museums and the extensive use of home video cameras, whose footage may one day be collected by new archival entrepreneurs. To this we can add the problem of archiving electronic information such as the Internet. The potential for controversies over the ownership and guardianship of archives has also grown apace. Here we think of the accusations of deliberate distortion, tampering and wanton destruction which have surrounded the archives of Sylvia Plath or Rudyard Kipling (Velody 1998; Kemp 1998: 35).

Rather than see the archive as a specific place in which we deposit records, documents, photographs, film, video and all the minutiae on which culture is inscribed, should the walls of the archive be extended and placed around the everyday world? If everything can potentially be of significance should not part of the archive fever be to record and document everything, as it could one day be useful? The problem then becomes, not what to put into the archive, but what one dare leave out. The Freudian vision of the unconscious is of a kind of archive in which everything experienced in the past resides, ready for access and recovery once we discover the code. The archive fever is to attempt to return to the lived origin, the everyday experience, which is the source of the imperfect and distorted memories which are our archives and whose transience and forgetting makes us uncomfortable (Derrida 1996: 92). Many have sought to recapture through memory traces, the richness of that everyday life, one of the most notable efforts being Proust's *À la Recherche du temps perdu*. Yet what is more unusual are those who seek to archive their lives as they live them. The French installation artist Christian Boltanski began a project to record his life as he lived it and collect all the documents pertaining to his life (Hobbs 1998). This collapsing of the boundary between art and life has been a familiar one since Dada and Surrealism and re-emerged in the Pop Art of the 1960s. Life as art, or as archived through art, was captured in some of Andy Warhol's movies; for instance, in the 8 hour movie of a woman asleep in bed which sought to faithfully record the second by second repetitive mundanity of the whole process of everyday living – or sleeping.<sup>6</sup>

The sense of incompleteness and shifting sites of archival work is further emphasized by Joyce (1999) who draws attention to the effects of the

changing relationship between the nation and the social. As the 'memory nation' gives way to 'historicized memory', a new massively expanded archive open to democratic scrutiny and counter claims comes into view. With the transformation of the nation and the social, the 'memory nation' disappears and through the experience of rapid change, new temporalities appear along with new sites of memory (one need only to think of the implications of multiculturalism here). If we have in recent years seen the rise of museums which provide contested dialogical and multivocal histories, juxtaposing the inner accounts of histories of slavery and oppression alongside official histories (Pieterse 1997; Bennett 1995), then the archive which is the ground for the particular contingent construction is constantly shifting and expanding its boundaries. This process necessarily directs the archival gaze towards the sites from which the archive is drawn and the mediating role of the historian or researcher. The latter's experiences and memories now cease to be an impediment to be overcome, but rather a resource, a site of memory where the archive can be seen actively to be at work. Here it is germane to recall the remarks of the urban historian Patrick Joyce (1999: 47) who is well aware that the city archive is not merely what is in the library, but is also the city which surrounds the library

Therefore the street is my archive, the built environment is my archive. However, I walk now in the city that I wish to describe then. The person who walks in this city now is also the boy who once walked in that city then, in this case London. The archive, in my case the library, and especially the public library, certainly archives the street and the built environment, but of course it does not exhaust their meaning, which is produced out of the experience of these things, an experience refracted through memory, not least memories of class.

If the trade of the archivist, especially the urban researcher, necessarily entails a certain capacity for *flânerie*, then it is only a small step to Walter Benjamin's experiences of walking the city of Paris and constructing his own personal archive that provided the basis for his unfinished *Passagen-Werk* or Arcades Project (1982). Benjamin, an avowed collector, was very much attuned to the details, the minutiae of everyday life such as tickets, handbills, posters, postcards, newspapers, nameplates, photographs, in his attempt to construct a social and cultural history of Paris in the nineteenth century. This was evident both in his collection of a vast range of material and in his elaborate filing system which used key words, the various *Konvoluts*, such as (A) Arcades, Novelty shops, salesmen (B) Fashion . . . (L) Dream City and Dream House, Dreams of the Future, Anthropological Nihilism, Jung . . . etc., in which thousands of documents were classified under an elaborate key word system (Buck-Morss 1989: 50). He closely followed the principle of citation in which the detritus and minutiae of urban life were asked to speak for themselves. Reflecting on his method he remarked 'Formula: construction from facts. Construction through the complete elimination of theory' (Benjamin GS vol V, quoted in Frisby 1994: 97).

Here the method was one of literary montage, in which 'the shocklike montage of the material', the 'kaleidoscopic fortuitous juxtaposition of shop signs and window displays' was assumed to do the theoretical work (Buck-Morss 1989: 73–4). The sophisticated methodological reflexivity at work here is very much evident: montage in the construction of the work reflects the montage in the consumer culture urban cityscape; the text is constructed like a city 'with a thousand gateways', to reflect the actual complexity of the city; the reader is encouraged to indulge in intellectual *flânerie*, to engage with a text which has been written about a city through which *flâneurs* strolled in the nineteenth century and now in which the author himself strolls as a researcher-*flâneur*, in order to summon up novel juxtapositions and half-remembered impressions which will stimulate the recollecting and researching process (see Featherstone 1998).

The visual nature of many sources in nineteenth century metropolitan consumer cultures also persuaded Benjamin that the researcher should conceptualize and structure his research through a sensitivity to the visual form. As he pointedly remarks 'history breaks down into images not into stories' (N11, 4, Smith (ed.) 1989: 67, cited in Gilloch 1996: 112). Photography in particular captured the immediacy of everyday life, the transience and contingency of the moment that aided the visualization of the past as an image. It enables an image of the past to flash up in the now of the present and trigger off a Proustian *mémoire involontaire*, a spontaneous and unexpected momentary sensation and impression of the past. For Benjamin such 'dialectical images' made possible a form of redemption of past moments, which allowed others to speak and gave voice to what had been unsaid (Gilloch 1996: 114). Benjamin was also aware of the way in which film, through its use of close-ups, slow-motion and montage best captured the rhythms and shocks, the momentary and fleeting sensations which took the viewer into the immediacy and detail of urban life (Gilloch 1996: 45). Hence Benjamin sought to provide a 'sustained presentation of concrete experience', to provide the most extreme sense of concreteness of an era (Caygill 1998: 132). Yet, however much we want to see Benjamin as developing his archive of the city in order to redeem the immediacy of the past, the detective piecing together fragmentary clues to discover what actually happened, there is also the sense that the momentary recoveries themselves must remain incomplete and partial.<sup>7</sup> In effect the fragments, the discarded minutiae of urban life can never be pieced together again, they remain tantalizing in the capacity to speak to us. Yet they speak in an allegorical manner, summoning up half-remembered memories which only lead to other incomplete allegories, broken allegories for which no final resolution is possible. Ultimately, then, Benjamin's text-as-city with its eschewal of conventional narrative structures has a unifying labyrinthine quality to it: there are many portals of entry, repetitions, circlings and crossing through the same places from different directions, which itself echoes the orderly/disorderly structures of urban everyday life.<sup>8</sup> A textual architecture and method that we can speculate could have been more fully realized through

the use of new electronic information technologies with hypertext and multimedia. Hypertext would facilitate the multiple entry points and non-linear associational jumps across the material, and multimedia would permit the use of a fuller range of sources: film, photographs, sounds, music, voice recordings which could be accessed in their own right or allowed to run concurrently with the text.

#### THE ELECTRONIC ARCHIVE

If the experience of the modern metropolis summoned up for Benjamin the possibility of developing a new categorical framework which stressed movement and complexity and was better able to capture the transitivity of urban life through categories such as 'porosity', 'threshold' and 'shock' (Caygill 1998: 120), then we can add the corollary that what some refer to as a second major shift within modernity, or the 'second media age' (Poster 1995) premised on the development of information technology, offers the challenge to extend further or even rethink this whole categorical framework. If the modern city provided an opportunity to rework the relationship between the archive and everyday life, then the architecture of the data city, what has been referred to as the 'city of bits' (Mitchell 1995), can take this process into a range of new directions and new agendas for sociology. Especially so, if we cease to regard information technology as merely a tool, but rather see it more as a 'third nature' in the process of delineation, a new virtual world we are only just starting to learn how to inhabit, which will stand alongside the original 'first' nature of the biosphere, and the 'second' nature, the humanly constructed world of the built environment and material technologies (see Luke 1999).

Margaret Morse (1998: 187) has remarked that 'the Internet is amongst the greatest architecture that the world has ever known' pointing to its 'elegant, nonhierarchical rhizomatic global' structure. Yet the virtual architecture of cyberspace could not be further away from that of the Gothic cathedral, with which she favourably compares it. Given the incomplete nature of the Internet, the more appropriate architectural metaphor is that of an open building site, parts of which are already falling into ruin, rather than something that has been planned and completed. Furthermore, whereas a building has a self-evident visual presence, the architecture of the Internet resides somewhere hidden behind the screen. Relatively few users are aware of the structure of the digital electronic networks. The imagery employed in terminology such as 'data flows' or 'bit streams', summons up fluidity, speed and mobility. Yet little attention is given to the channelling and structuring effect of the software and the hardware. Not only does the programmer specify the hypertext and hyperlinks which inscribes the potential movements of the user or consumer, it has also been argued that we remain unaware of the writing that precedes our own possibilities for writing, since the 'human writing passes through channels already laid out

in computer hardware and communication channels, the miniaturized writing in the sand that links thousands of transistors on a silicon chip,' (Kittler, cited in Tabbi 1997: 243).

Although the term 'cyberspace' often refers to the virtual spaces of computer networks, it has been pointed out that virtual spaces are not in fact true spaces, but collections of separate objects. In effect 'there is no space in cyberspace' (Manovich 1997: 297). The distinction between haptic and optic perception is useful here: haptic perception isolates the object in the field as a separate entity, whereas optic perception unifies objects in a spatial continuum. Three-dimensional virtual spaces seem to operate like systematic Renaissance space conceived of as existing prior to objects. Yet computer-generated worlds are more haptic than systematic, with the most commonly used 3D computer graphics technique being polygonal modelling, which involves the superimposition of objects over a background rather than placing them in space. A perspectival projection creates the illusion that the objects are placed together, but in fact they have no connection at all (Manovich 1997: 298). Hence the space of the web cannot be thought of as a coherent totality, rather it is an aggregate space, a collection of numerous files which may well be hyper-linked, but have no overall perspective to unite them. VRML (virtual reality markup language) which has recently been introduced, an anticipation of the fictional cyberspace worlds of William Gibson (1986) and Neal Stephenson (1992), works on the same principles. A virtual world has a fluid ontology which is affected by the actions of the user, with more detailed filled in the longer one stops in a particular place. Hence while it may be possible to create a virtual archive in cyberspace, as for example, in the popular film *Disclosure* (1995) where the leading character played by Michael Douglas searches for files in the form of books, as he 'walks' through a database in the form of a three-dimensional replica of the New York Public Library (see discussion in Fidler 1997: 183), the space is constituted in a very different way from the spaces of everyday life.

To carry out research in the archive one needs to make a catalogue, a system of classifying the data or materials which has some ordering function and helps us deal with the problems of selectivity and navigation. The simplest method is to give the data an accession number, based upon the date of arrival (see Ernst 1999: 17, for a discussion of the German archives), but this tells us little about the content of what is classified. With the development of the Library, material becomes systematically classified and searchable through the catalogue, the index and the bibliography. Yet a central problem of the Dewey system which became the most widely adopted form of cataloguing, lay in the classification of interstitial areas between the clearly demarcated fields of knowledge. In addition there was the problem of how to insert new emergent fields into the hierarchy of subdivided fields and cope with the rise of cross and inter-disciplinarity (Cubitt 1998: 12). The main purpose of the library system was to enable the reader to find a particular book, or locate the range of books written by a specific

author. It was the incapacity of the existing systems to cope with innovation which led to new systems, such as Bliss and Ranganathan's Colon Classification. These focused not only on the defining core subject of a book, but on the wider range of other aspects it also incorporated. Hence the advantage of such systems was that they enabled the location of books by shared interests, even if they 'belonged' to different disciplinary categories (Cubitt 1998: 12). The Colon system, then, was developed around a synthetic principle which has been referred to as 'the grandparent of internet search engines' (Cubitt 1998: 12).

Where the electronic library scores in flexibility, mobility and speed over the actually existing library of books, is that the search engine, the catalogue or classificatory system, does not have to remain external to the material. Electronic search engines become possible when texts and other cultural objects (images, sounds) have become digitized, reduced to electronic data, immense heaps of bits. They work by foraging all the files of the database to discover all possible matches to the bit-string translation of the original request (Fidler 1997: 181). Over the last decade we have seen the introduction of databases which are becoming widely used information systems. Here we think of the world-wide success of systems such as *Medline*, along with a range of electronic expert systems in law and other fields (Lanham 1993: 122). In business, government and the military field in the USA, training increasingly takes place through interactive videodisc, which enable searches and rapid movements, through and across material. This has become familiar with the availability of the Oxford English Dictionary and Encyclopaedia Britannica in CD-ROM formats; the same search principles are employed in on-line Internet databases.

A key aspect of the electronic search and research process is the use of hypertext. In contrast to the ideal of memory as a store into which one descends to pull things out, hypertext works on a less hierarchical, more lateral view of knowledge as the links between data. As Caygill (1999: 8) remarks: 'the key to the conceptual organization . . . was a system of lateral, non-hierarchical links between arbitrary nodes', which facilitated the tracking of associations and favoured the inventive developing of new structures, not just retrieving information. It facilitates lateral jumps out of a particular page or text into another, as long as the other texts are constructed using the same HTML (hypertext markup language). This means that the boundaries of a particular text become fluid: one does not just read vertically down the page, but increasingly laterally as when one finds a particular reference interesting, say the title of a book, one clicks on it and jumps out of the original document into a summary of the book, from which one could jump again into the actual text, or details of the author's life, her other books or numerous other associative links. The series of associative chains one follows or constructs, facilitates a form of serendipity and browsing which may lead to creative insights and a loss of a sense of the relevance of the initial starting point. This also revolutionizes the nature of footnotes, from being marginal and less significant data, they grow into the status of

portals, the jumping off points to other texts, the peripheral byways can now become the major routes to other texts.<sup>9</sup>

In one sense this is not new, most scholars from time to time browse in the library, or when they write pull out books from the shelves of their own personal library, which often lie about the place in jumbled piles, to enrich the associative possibilities of the writing process. This is why scholars in the past depended on large personal libraries and also why they so much enjoyed the pleasures of the book collector, who as Benjamin (1970: 60) remarked, is able to experience the tensions between order and disorder: the chaos of memories and sense of chance and fate which the particular collection of texts summon up, along with one's own particular habits of reading and use, which harden into the equivalent of the order of the catalogue.

The creativity of the reading process made possible through hypertext linkages can work two ways. On the one hand, the words the author has chosen to hypertext will, direct the gaze of the reader to a particular interpretation of the text and its associative field, and perhaps curtail the capacity of the reader to make jumps and inferences not intended by the author. On the other hand, once the reader has escaped the original document the way ahead is open and authorial intentions and authority can soon fade into the background (Levinson 1997: 140). In addition, when the materiality of a book gives way to the immateriality of electronic texts that do not have a specific location, there is a new freedom of composition from a series of infinitely manipulable fragments. Instead of immediately apprehension of the whole work as is the case with the visible object of the book, electronic texts introduce 'lengthy navigation in textual archipelagos which have neither shores nor borders' (Chartier 1995: 18). With a book we can only underline or write in the margins, with electronic text we can copy, recompose, move things around. Books work off a strong distinction between author and reader, whereas with electronic texts 'the reader becomes its coauthor' (Chartier 1995: 20).

A further important aspect of the capacity to rewrite the text, is the capacity to reformat it in terms of a shift in the alphabet/image ratio. This means an increased use of computer graphic images in texts, as is already occurring in medical and scientific research and the arts. It also means an increasing use of visualization as a conceptual tool, something particularly applicable in research on scientific and artistic chaotic systems, along with a whole host of other possible applications in the arts and social sciences. The capacity of electronic text to offer a much wider repertoire of performative signs (using certain letters, symbols or coloured text) to indicate mood, it is argued, will also increase (Lanham 1993: 127-8). This will expand the rhetorical possibilities and the stylization of virtual public life. If writing increasingly becomes a more dynamic network of visual and verbal symbols, then the resultant multi- or hypermedia mixture of alphabetic, iconic and auditory information, will not only help to fulfil one of the long standing dreams of the visual arts with the interchangeability of

forms through digitalization, but also will alter the nature of intellectual and academic production and reception; something which will have a wide range of implications for the future of the university. How one archives such hypermedia textual productions, with their greater level of transitivity and interactivity which makes the electronic text take on some of the dynamism of the oral text and threatens to abolish the authority of the 'fixed edition', is another major issue (Lanhan 1993: xi).

There is a further aspect of hypertext which has implications for our capacity to handle and archive culture: the question of scope or scale. Once one is joined up to other computers through the Internet, and if large amounts of textual, imagistic and oral material are digitized and hypertexted and held in electronic databases around the world, there is, in theory, little reason why one could not access any aspect of this world of culture. This reintroduces the problem of the scaling decision: how and where one will place the limits of what is to be read and decide on the appropriate level of generality. Tim Berners-Lee, the founder of the World Wide Web, was very much attuned to this question. He saw the Web as not merely a mechanism for information retrieval from a global archive. Rather it offered the potential of a new inventive relationship to knowledge that overcame the hierarchical relationship found in the traditional archive. The operating systems he devised based on HTML, URL (Uniform Resource Location) and HTTP (Hypertext Transfer Protocols), were designed to fulfil the creative potential of hypertext and worked well with the dynamic and unpredictable flows of information of emergent systems (Caygill 1999: 9). Yet it can be argued that the WWW has largely lost the inventive side of hypertext and instead has become an archival system based upon information retrieval from an existing stock. For Berners-Lee, the problem is that the current configuration of the Web is limited to receiver mode, with the interactivity being still very much of the broadcast or market type (limited to the act of purchase 'click'). This is a long way from Berners-Lee's vision of a collective medium with the 'ability to annotate, to interact, to up-date information' (Caygill 1999: 9). The threat to the Web from a narrowing down to the interests of business is to become a 'global market/monoculture'. The state also represents another form of threat, with its concern to enforce censorship and intellectual property rights. With the recent US Supreme Court's ruling along with the technical difficulties of policing and enforcement, the state has for the moment pulled back from the question of censorship, but intellectual property rights are a much more central element of market culture, and may not be so easily discarded. As Caygill (1999: 10) comments

At the core of Hypertext is the idea of linkages between documents – if a right of intellectual property is extended to a link in a hypertext, then the system as a whole is under threat. Berners-Lee's response to these problems is to propose a constitution for WWW inaugurating a 'Web of trust'. This takes the form of a new culture – 'we have to develop a culture

to help people appreciate how these tools change the way information is organised, how work is organised, how life is organised'. This is no less than a new culture of memory, in which memory is no longer located in specific sites or accessible according to traditional mnemonics, and is no longer a stock to which it is necessary to gain access, with all the hierarchical controls that this entails.

Here the stakes are high, if linkages are seen in a restricted sense as linkages between a defined set of objects, then governments will have greater control over information, forms of knowledge and power relations. If on the other hand, knowledge ceases to be seen as separate pieces of matter, but as relational products of linkages, then it can be invented and produced by everybody. This is the prospect Lyotard (1984) referred to in *The Post-modern Condition*, when the databases not owned or controlled by any particular sets of interests and information are widely accessible, able to flow easily and become reconfigured within an open network.

The current reality is, of course, somewhat different. The democratic and anarchistic dreams of the early Web pioneers are not just threatened by the commercialization of the Internet, but the development by large corporations of intranets, that is, fire-walled protective networks (Sassen 1999) – something which is a step along the way towards the dark portrait of the deregulated world of corporate power struggles over information depicted by William Gibson (1986). Yet the situation is by no means a closed one, and there are still grounds to see the Internet as furthering the development of a virtual public sphere with global scope, which is able to develop flexible alliances between social movements, NGOs, foundations and broader publics.<sup>10</sup>

Whatever the eventual format the Internet takes, there remains the question of its archiving ability. If the Internet becomes a major informational and cultural resource which is central to the modes of governmentality interdependencies and power struggles which run through politics, work and everyday life, then it is important that it too should be archived. Given the instabilities of electronic data storage and the capacity for material to be lost or transformed, to argue that the storage system should be electronic is by no means conclusive, if one wants to achieve completeness of data. Yet an Internet archive which is printed off and kept in filing cabinets or cardboard boxes would have more than a certain irony. Hence an Internet archive would have to be stored in electronic format to preserve a semblance of its workability, its capacity to make links and hypertext jumps between and within sites. Given the extent and rate of expansion of the Internet – the fact that some parts are growing in an unmanageable and chaotic manner, while other parts become abandoned and fall into ruins – to archive it would be a daunting task. Yet this project is being confronted by the Internet Archive, a new organization collecting public materials on the Internet in order to construct a digital library which will include 'all publicly accessible World Wide Web pages, the Gopher highway and the

Netnews bulletin board system and downloadable software' (Kahle 1996: 1). The project contains considerable technical problems in shifting the collection to new operating systems that change every ten years, along with preserving the software to read discarded formats and simulating the old machines that they ran on. The extent of the Web in 1996 was estimated at 50 million pages with the average page only online for 75 days – and the number of pages is doubling every year. In 1996 the size was estimated at 1.5 terabytes (or million megabytes).

A further illustration of the problem faced by the archivist in the future is the fact that many administrative records and informal material and now produced through the Internet, intranets and email. The National Archives and Records Administration in Washington DC is currently considering whether to collect/catalogue/store all electronic communications of the Clinton and other administrations. The NARA will face massive problems of scope in trying to devise programmes to sift through the material to separate worthless trivia from important files. It is estimated that by the end of the Clinton administration NARA will have received 16–24 million electronic messages. With regard to the problem of access and storage, one option would be to store printed hard copies, but this would mean the loss of the original electronic document and the erasure of the histories that mark the origins of electronic versions and can be an aid to prove that it has not been overwritten or tampered with (Brown and Davis-Brown 1998: 24). The problem with archiving e-mails, is that they are a new form which in many ways is nearer to everyday speech in its lack of deliberation, informality of expression and rapidity of interchange. It is a long way from the art of letter writing by hand which had a very different relationship to thought processes and pace of interchanges. E-mail is transforming the relationship between the private, the public and the secret (public or private). Hence, e-mail technology should not be seen as merely a new moment in the process of recording, but rather as something that constructs or constitutes the archivable event. Jacques Derrida (1996: 16) raises the question what would have been the impact on the archivization of psychoanalysis if Freud, along with his partners and disciples, instead of writing thousands of letters by hand had used e-mail. Derrida argues that this would have

transformed the history of psychoanalysis from top to bottom and in the most initial inside of its production, in its very *events*. This is another way of saying that the archive, as printing, writing, prosthesis, or hypomnesic technique in general is not only the place for stocking and for conserving an archivable content *of the past* which would exist in any case, such as, without the archive, one still believes it was or will have been. No, the technical structure of the *archiving* archive also determines the structure of the *archivable* content even in its very coming into existence and in its relationship to the future. The archivization produces as much as it records the event.

## THE BODY IN THE ARCHIVE

Shifts in archival technology do not merely change the form within which culture is recorded, but very much influence the future content of the archive by changing the conditions under which culture is produced and enacted. As Derrida (1996: 18) remarks 'what is no longer archived in the same way is no longer lived in the same way'. We are entering a phase of history in which the availability of recording devices to conserve and represent information about human beings, their culture and the external nature abound. Hence there is an expansion of the means with which people are recording and archiving their own lives through video-cameras and digital computer editing. In some cases it seems that public and private rituals and ceremonies only become realizable through their enactment and staging for recording technologies, as in the case of the videoing of weddings, births, etc. These may be used to constitute and reinforce traditional narratives of centred identities. At the same time, there has also been an expansion in the amount of information held on members of the public in government and corporate databases. What is interesting about the information collected and stored here, is that it is used to constitute partial or para-identities. According to Mark Poster (1995: 91) the databases seek to gather large comprehensive fields of information from which representations about individuals can be constructed. Hence, a person will have a new form of presence, a partial identity defined for the purposes of those who administer and use the databases. This suggests a different relationship between knowledge and power to the one Foucault argued occurred with the panopticon, which constituted the modern 'interiorized' subject, an individual with a strong sense of centred, inner identity. In the case of the 'super-panopticon', or database society, individuals are constituted with dispersed identities, identities that reside in the database or electronic archive, which the person may be completely unaware of (Poster 1995: 93). Governmentality ceases to only be achieved only through the regimes of 'bio-power' which subject bodies to disciplinary control, it is also made possible through the information which constitutes the virtual body in the archive.<sup>11</sup> One aspect of the struggle for more open access to databases will therefore focus on the recovery of this virtual body in the archive.

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## NOTES

1. As we shall see below, the organizing, classificatory and unifying/disunifying processes at work in the metropolis and consumer culture also preoccupied Walter Benjamin (1982) in his *Passagen-Werk*, or Arcades Project.

2. It is interesting to note that Borges (1999a: 276) in 'The Aleph,' presents a conversation between the narrator and the discover of the Aleph in which the latter observes that the modern technologies of the great cities (film, telephone etc) had rendered the act of travelling supererogatory. Something which is not only taken up by Virilio, but by commentators on cyberspace who point to the end of tourism (See Penley 1992).

3. Caygill (1999: 2) reminds us that according to Aristotle in *The Athenium Constitution* the *archon* originated in the ancient Greek transition from monarchic to aristocratic rule, with the *archons*, unlike the kings being constitutionally required to respect precedent'.

4. To attack or destroy the archives is to threaten the basis of a culture, an identity, a history and region. In the winter of 1992 in the war between Georgia and Abkhazia, members of the Georgian National Guard drew up outside the Abkhazia State Archives threw incendiary grenades and reduced the archives to ashes (see Velody 1998: 3-4).

5. One only has to look at the work of Said (1978) on *Orientalism* or Spivak (1985) on India to see the ways in which the Orient as a product of the archiving process produced misreadings. Indeed, it has been claimed that the process whereby the archive which is the basis for German Oriental Studies was arrived at, displayed a high degree of arbitrariness with scholars purchasing scrolls from the Cairo archive which were selected randomly or capriciously, and then shipped back to Germany (Schulze 1987).

6. A recent Hollywood movie 'The Truman Show' (1998), starring Jim Carey, has a plot constructed around a television soap opera which focuses on the trials and tribulations in the everyday life of an ordinary family man, who was surreptitiously followed everywhere by a TV camera crew

which recorded large chunks of his life. In this film everything is a set and everyone but the Carey character is an actor, as he eventually discovers when he accidentally breaks through the backcloth of the set into the reality of the studio behind.

7. For a discussion of the detective in relation to Benjamin's work on the city, see Frisby (1994). Norman Denzin (1995) has argued that there has been a shift in the conception of the detective from the nineteenth and early twentieth century figure who is able to put together the clues from the 'archive which is the city' and solve the case, to the detective who is always working with incompleteness and the impossibility of resolution.

8. It is interesting to note that while working on the *Archives Project* in Paris in the 1930s Benjamin not only associated with surrealist artists, but also with those who went under the name of the Collège de Sociologie, such as Bataille, Caillos, Griaule and Leiris, who sought to explore the potential of surrealism as a method for critical intellectual and academic study. Leiris, for example, in his 'anti-book' *L'Afrique fantôme* deployed a series of entries with texts and images taken from his ethnographic fieldnotes and other sources, which were laid out in montage form, without a unifying narrative (see Featherstone 1995: 140).

9. This seems an apt point to insert a footnote. The serendipity of unusual connections can, of course, become short-circuited if the act of hypertext browsing is given over to 'an intelligent agent', or 'knowbot', search device programmed with the user's particular sense of relevance or set of tastes. In this case the agent will only find what it is looking for, and if, for example, it is programmed to search for references on Walter Benjamin, it will come back with masses of information on him, but not a jot on Theodor Adorno.

10. One of the oft-quoted examples of the success of Internet politics has been the use made of the Web by the Zapatistas in Chiapas, Mexico, to develop alliances which helped in the struggle to attain constitutional guarantees for minority

Indian rights (see discussion in Castells 1997).

11. There is not the space here to consider the ways in which these two systems are coming together through a range of technoscientific processes such as 'RealVideo Surgery' (Thacker 1999) and the 'Visible Human Project' (Curtis 1999). We also need to consider the ways in which electronic information storage is now conceived as possible through using living cellular structures and the parallels between the information code and the DNA genetic code. In effect the possibilities of the body itself being seen as an information archive which stores and grounds a particular configuration of identity, something seen as either coded at the point of entry into life, or subjected to recordings and re-codings as one moves through the life course, also need to be explored.

#### BIBLIOGRAPHY

- Appadurai, A.** 1990 'Disjuncture and Difference in the Global Cultural Economy', in M. Featherstone (ed.) *Global Culture*, London: Sage.
- 1996 *Modernity at Large*, Minneapolis: Minnesota University Press.
- Armitage, J.** 1999 'From Modernism to Hypermodernism and Beyond: An Interview with Paul Virilio', Special issue on Paul Virilio, *Theory, Culture & Society* 16(5–6): 25–55.
- Benjamin, W.** 1970 'Unpacking My Library', in Hannah Arendt (ed.) *Illuminations*, London: Cape.
- 1982 *Das Passagen-Werk*, 2 vols, Frankfurt: Suhrkamp.
- Bennett, T.** 1995 *The Birth of the Museum*, London: Routledge.
- Borges, J. L.** 1999a 'The Aleph', in *Collected Fiction*, London: Allen Lane the Penguin Press.
- 1999b 'The Library of Babel', in *Collected Fiction*, London: Allen Lane, Penguin Press.
- Bradley, H.** 1999 'The Seduction of the Archive', *History of the Human Sciences* 12(2): 107–122.
- Brown, R. H. and Davis-Brown, B.** 1998 'The Making of Memory: the Politics of Archives, Libraries and Museums in the Construction of National Consciousness', *History of the Human Sciences* 11(4): 17–32.
- Buck-Morss, S.** 1989 *The Dialectic of Seeing: Walter Benjamin and the Arcades Project*, Cambridge, MA: MIT Press.
- Castells, M.** 1997 *The Information Age, Volume 2: The Power of Identity*, Oxford: Blackwell.
- Cavell, S.** 1994 'The Uncanniness of the Ordinary,' in *Quest for the Ordinary: Lines of Skepticism and Romanticism*, Chicago: Chicago University Press.
- Caygill, H.** 1998 *Walter Benjamin: the Colour of Experience*, London: Routledge.
- 1999 'Meno and the Internet: Between Memory and the Archive', *History of the Human Sciences* 12(2): 1–12.
- Chartier, R.** 1995 *Forms and Meanings*, Philadelphia: Pennsylvania U.P.
- Cubitt, S.** 1998 *Digital Aesthetics*, London: Sage.
- Curtis, N.** 1999 'The Body as Outlaw: Lyotard, Kafka and the Visible Human Project', Special issue on Body Modification, *Body & Society* 5(2–3): 249–67.
- Denzin, N.** 1995 'Chan is Missing', in M. Featherstone and A. Wernick (eds) *Images of Ageing*, London: Sage.
- Derrida, J.** 1996 *Archive Fever: A Freudian Impression*, Chicago: Chicago U.P.
- Ernst, W.** 1999 'Archival action: the archive as ROM and its political instrumentalization under National Socialism', *History of the Human Sciences* 12(2): 13–34.
- Featherstone, M.** 1991 'Georg Simmel: An Introduction', *Theory, Culture & Society* 8(3): 1–16.
- 1995 *Undoing Culture: Globalization, Postmodernism and Identity*, London: Sage.
- 1998 'The Flâneur, the City and Virtual Public Life', *Urban Studies* 35(5–6): 909–25.
- Featherstone, M. and Burrows, R.** 1995 'Cultures of Technological Embodiment', in M. Featherstone and R. Burrows (eds) *Cyberspace/Cyberbodies/Cyberpunk: Cultures of Technological Embodiment*, London: Sage.
- Fidler, R.** 1997 *Mediamorphosis*, London: Sage.
- Foucault, M.** 1972 *The Archeology of Knowledge*, London: Tavistock.

- Frisby, D.** 1994 'The *Flâneur* and Social Theory,' in K. Tester (ed.) *The Flâneur*, London: Routledge.
- Gibson, W.** 1986 *Neuromancer*, New York: Fantasia Press [first published 1984].
- Gilloch, G.** 1996 *Myth and Metropolis: Walter Benjamin and the City*, Cambridge: Polity.
- Hevia, J. M.** 1999 'The Archive State and the Fear of Pollution: From the Opium Wars to Fu-Manchu', *Cultural Studies* 12(2): 234–64.
- Hobbs, R.** 1998 'Boltanski's Visual Archives', *History of the Human Sciences* 11(4): 121–40.
- Joyce, P.** 1999 'The Politics of the Liberal Archive', *History of the Human Sciences* 12(2): 35–49.
- Kahle, B.** 1996 'Archiving the Internet', [http://www.archive.org/sciam\\_article.html](http://www.archive.org/sciam_article.html). Also submitted to *Scientific American* for March 1997 issue.
- Kemp, S.** 1998 'The Archive on which the Sun Never Set: Rudyard Kipling', *History of the Human Sciences* 11(4): 33–48.
- Lanham, R. A.** 1993 *The Electronic World*, Chicago: Chicago U.P.
- Lash, S. and Urry, J.** 1994 *Economies of Signs and Space*, London: Sage.
- Le Goff, J.** 1992 *History and Memory*, New York: Columbia University Press.
- Levinson, P.** 1997 *Soft Edge: A Natural History and Future of the Information Revolution*, London: Routledge.
- Luke, T.** 1999 'Simulated Sovereignty, Telematic Territoriality: the Political Economy of Cyberspace' in M. Featherstone and S. Lash (eds) *Spaces of Culture: City, Nation, World*, London: Sage.
- Lynch, M.** 1999 'Archive in Formation', *History of the Human Sciences* 12(2): 65–87.
- Lyotard, J.-F.** 1984 *The Postmodern Condition*, Minneapolis: Minnesota University Press.
- Manovich, L.** 1997 'The Aesthetics of Virtual Worlds,' in A. Kroker and M. Kroker (eds) *Digital Delirium*, St. Martins Press.
- Mitchell, W. J. T.** 1995 *City of Bits*, Cambridge, Mass: M.I.T. Press.
- Morse, M.** 1998 *Virtualities*, Bloomington: Indiana U.P.
- Nora, P.** 1994–98 *Realms of Memory: Rethinking the French Past, 3 Volumes*, New York: Columbia University Press.
- Osborne, T.** 1999 'The Ordinarity of the Archive', *History of the Human Sciences* 12(2): 51–64.
- Penley, C.** 1992 'Future Travel: Anthropology and Cultural Distance in an Age of Virtual Reality; Or a Past Seen from a Possible Future', *Visual Anthropology Review* 8(1).
- Pieterse, J. N.** 1997 'Multiculturalism and Museums: Discourse and Others in the Age of Globalization', *Theory, Culture & Society* 14(4): 123–46.
- Poster, M.** 1995 *The Second Media Age*, Cambridge: Polity.
- Richards, T.** 1993 *The Imperial Archive*, London: Routledge.
- Said, E. W.** 1978 *Orientalism*, Harmondsworth: Penguin.
- Sassen** 1999 'Digital Networks and Power' in M. Featherstone and S. Lash (eds) *Spaces of Culture: City, Nation, World*, London: Sage.
- Schulze, R.** 1987 'Mass Culture and Islamic Cultural Production in the 19th Century Middle East' in G. Stauth and S. Zubaida (eds) *Mass Culture, Popular Culture and Social Life in the Middle East*, Boulder, CO: Westview Press.
- Simmel, G.** 1997a 'The Concept and Tragedy of Culture,' in D. Frisby and M. Featherstone (eds) *Simmel on Culture*, London: Sage.
- 1997b 'The Future of Our Culture,' in D. Frisby and M. Featherstone (eds) *Simmel on Culture*, London: Sage.
- 1997c 'The Berlin Trade Exhibition,' in D. Frisby and M. Featherstone (eds) *Simmel on Culture*, London: Sage.
- Spivak, G.** 1985 'The Rani of Surmur,' in F. Barker, P. Hulme et al. (eds) *Europe and its Other: Volume 1*, Colchester: Essex U.P.
- Steedman, C.** 1998 'The Space of Memory: in an Archive', *History of the Human Sciences* 11(4): 65–83.
- Stephenson, N.** 1992 *Snow Crash*, New York: Bantam.
- Tabbi, J.** 1997 'Reading, Writing, Hyper-text', in D. Porter (ed.) *Internet Culture*, London: Routledge.
- Tenbruck, F.** 1994 'Internal History of Society or Universal History', *Theory, Culture & Society* 11(1): 75–93.
- Thacker, E.** 1999 'Performing the Technoscientific Body', Special issue on Body Modification, *Body & Society* 5(2–3): 317–36.

- Velody, I.** 1998 'The Archive and the Human Sciences: Notes towards a Theory of the Archive', *History of the Human Sciences* 11(4): 1–15.
- Virilio, P.** 1999 *Polar Inertia*, London: Sage.
- Wallerstein, I.** 1991 *Unthinking Social Science*, Oxford: Polity.
- Weinstein, D. and Weinstein, M.** 1990 'Georg Simmel: Sociological Flâneur/Bricoleur', *Theory, Culture & Society* 8(3): 151–68.