# Microfilm, Mormons and the Technology of the Archive

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Technology can be broadly defined as the 'whole range of means by which humans act on their environments or seek to transcend the limits of their natural capacities' (*Dictionary of the Social Sciences* 2002). It can include communication and language, as well as equipment and tools and the know-how to employ them. In this respect, technology is not separate from humanity; rather humanity 'and technology are situated in a circular relationship, each shaping and affecting the other' (Kaplan 2004, p.xv). The archive can be interpreted as a form of mnemonic and communications technology; it is one of the means by which humanity remembers and communicates. Through the archival techniques of recording, preserving and copying, ideas and information can be remembered and shared from one generation to the next. In recent years, the most dramatic and novel technology to impact archives is the ability to create digital images and objects and make them available on the World Wide Web. It can be argued that this technological development has not only revolutionized access to archives and brought into question their epistemological status, but that it has also contributed to a new sense of shared memory and identity. However, rather than focus on this technological development, this article explores the archival technology of custodianship within the context of the microfilm programmes of the Genealogical Society of Utah (GSU). This history is highlighted in order to demonstrate that there have been other technologies that have greatly influenced archival access. It is also argued that access to and the use of archives is not simply a matter of neutral

technological progression, but has been and is conditioned by various social groups with their particular religious, economic and political concerns. Furthermore, by bringing the notion of the archive as a kind of technology to the fore, it is intended to expose the ethical and moral tensions inherent in such 'archivization' (Derrida 1998, p.17).

From a historiographical point of view, traditional archives — papers and documents — have perhaps been considered more as a kind of natural resource than as a technology. The nineteenth-century German school of history led by Leopold von Ranke quested after objective truth based upon documentary evidence deposited within the archive. From this positivist perspective, archival manuscripts became 'to the humanities what observable natural phenomena were to the sciences' (Moss 1997, p.960). Yet the material that is contained within archives — namely, records and documents — were originally created to aid memory and communication in the carrying out of various tasks at hand. They were principally evidential technologies of remembering and recording, which the archive then sanctioned to posterity through the technique of custodianship.

Custodianship is closely linked to the juridical role of archives. Jacques Derrida traces the notion of the archive to the Greek definition of the archive as *arkheion*, the home of the magistrate or the *archon*. In *Archive Fever,* he writes:

> [...] *every* archive […] is at once *institutive* and *conservative*. Revolutionary and traditional. An *eco-nomic* archive in this double sense: it keeps, it puts in reserve, it saves, but in an unnatural fashion, that is to say in making the law (*nomos*) or in making people respect the law. A moment ago we called it nomological. It has the force of the law, of a law which is the law of the house (*oikos*), of the house as place, domicile, family, lineage, or institution. (Derrida 1998, p.7)

The process of consignation, the gathering together of signs, is achieved through the technique of 'house-arrest', through custodianship (Derrida

1998, pp.2-3). The technology of the archive has a particular function in that it guards, keeps, saves and reveals evidence of past events. The word 'evidence' originates in the Latin word *videre*, 'to see' and, in this respect, archives can be interpreted as a kind of evidential visual tool that both guards and exposes the truth. It makes the invisible — what has happened — visible. The technology of archival custodianship governs access over what can be seen by whom and, as such, functions as a social and political tool.

Within the context of archival provision, technological development is most associated with increasing access to information through disclosing the archive in new ways, such as providing online access. In recent years, the mantra 'access to all' has stood for a democratic move towards opening up the archive and accordingly the traditional custodial role of the archivist, i.e., as the magisterial *archon* presiding over the 'house arrest', has been challenged (Cook 1997). In addition, access has perhaps been defined as distinct from, and emphasized over, use. Underlying the problem of use is an awareness of uncontrollability and the intractability of information: how can archivists be held responsible or control how others use information? As such, it has been much easier for the archival profession to emphasize the democratic aspect of archives by focusing on enhanced technological access or efficiency of finding, rather than become too troubled with how archives are used or interpreted.

Yet access to archives is not simply a matter of technological efficiency; or rather, the technology of archival access is not neutral. For the Mormons, archival technology has almost become a mode of divine revelation and salvation. Since their foundation in the late nineteenth century, the Genealogical Society of Utah (GSU) has microfilmed, transcribed and digitized genealogical material — such as baptismal and birth records, marriage records and death and burial records, and census material

— from thousands of different archives from across the globe. In doing so, they have created their own archive of genealogical knowledge. The microfilm copies are housed in what is known as the Granite Mountain Records Vault, Utah (Allen, Embry & Mehr 1995, p.239). Completed in 1964, it cost two million dollars and was designed to withstand flood, nuclear holocaust and other disasters. The vault consists of six storage chambers each of which are two hundred feet long and are built almost six hundred feet into the granite mountain. Each chamber has the capacity to store 885,400 hundred-foot rolls of 35mm film. The vault provides an ideal storage environment; the average natural temperature varies between fifty-nine and sixty-two degrees Fahrenheit, with humidity of approximately thirty per cent. In 1985 it was estimated that the number of rolls held about a billion and a half names of the dead (Shoumatoff 1985, rev. repr. 1995, pp.291-293).

In 2001 Sarah Tyacke, then chief executive of The National Archives (England and Wales), wrote that the 'prime current example of remembering or archive "fever" is the pursuit of […] family history, which sometimes borders on ancestor worship' (Tyacke 2001, p.16). For the Church of Jesus Christ of Latter-Day Saints (LDS), genealogy is — if not a form of ancestor worship — then at least a religious duty and a form of evangelism. From the church's perspective any genealogical work is part of God's holy plan; a plan that has global aspirations not only to redeem the current population but also the populations of the past. The LDS's genealogical activities are principally driven by its practice of proxy baptism. The church's founder, Joseph Smith first preached the doctrine of the baptism of the dead at a funeral in 1840, the justification of which he took from a passage of St Paul's first letter to the Corinthians: 'Else what shall they do which are baptized for the dead, if the dead rise not at all, why are they then baptized for the dead?' (1 Corinthians 15:29). Mormons believe

that the dead who did not accept or hear the gospel will be given a second opportunity to be baptized and thereby accepted into the Mormon faith. The dead can either accept or reject this posthumous opportunity. The physical act of baptism is achieved by proxy through a living believer; men are baptized on behalf of their deceased male ancestors and women, likewise.

Baptisms are not the only saving ordinances that can be performed for the dead. Mormons believe that the family and its relationships exist for all eternity in paradise. Inspired by the last verses in the Old Testament, believers are called by the 'Spirit of Elijah' to 'seal' the hearts 'of the fathers to their children, and the hearts of the children to their fathers' (Malachi 4:5-6). Confirmation, ordination to the male-only priesthoods of Aaron and Melchizedek, endowment, marriage and 'sealings' to spouses and to parents are the other saving ceremonies that can be performed on behalf of one's ancestors. Significantly, the sealing of different generations requires a vast store of genealogical information on who is related to whom. The LDS temples are reliant upon the genealogical work of the GSU, which supplies the temples with names for its vicarious ordinances.[1]

At first only the first deceased generation of the first family members were baptized by proxy, but in the same year that the GSU was incorporated in 1894, the President of the LDS, Wilford Woodruff, decreed that Latter-Day Saints should 'trace their genealogies as far as they can.' Furthermore, people could be 'adopted' by priests and so carry out genealogical research on and saving sacraments for families whether they were related or not (Allen, Embry & Mehr 1995, p.43). To enable genealogical research to be carried out at a faster and more efficient pace than that was provided by transcribing archival documents, the GSU

[1] The need for these saving ordnances implies that baptisms and other services carried out by other faiths are not valid. Because the GSU's microfilms are used to provide the church with names to be posthumously baptized, control over the use of biographical and personal information was — and still is — a contentious issue (Paton 2003; Mokotoff 1995).

adopted microfilm technology in the 1930s. The church's principle focus was upon the countries in which the majority of their members had roots; namely, Germany and the British Isles. In 1936, with the prospect of war and its attendant threat to records looming on the horizon, coupled with the need of the temples for more names, elder John A. Widsoe persuaded the GSU to begin microfilming European parish registers. In this way, saving souls was supplemented with saving — or copying — archival information. A committee was formed and two years later microfilming work began in countries such as Holland (Allen, Embry & Mehr 1995, p. 216).

In the same period, Hugh B. Brown, President of the British Mission of the Church of Jesus Christ of Latter-Day Saints, contacted the forty-three Diocesan bishops of the Church of England to obtain permission to begin to microfilm parish registers of baptisms and marriages. Some refused on religious grounds but the main grounds for refusal was economic as parish priests feared the loss of fees that they could earn through providing access and through transcribing entries (LPL Fisher Papers 207/179). The concern over loss of fees was based on the economic utility of the registers which was invested not only their physical but also their intellectual custody. Brown argued that no-one should be allowed to copy a page of the registers 'without the most careful consideration whether this might deprive the incumbents' successors of rights to fees to which they are legally entitled' (LPL Fisher Papers 207/180).

After the war, people became more open to the possibility of microfilming. By October 1959, it was agreed by the majority of Bishops of the Church of England to advise their incumbents to place their parish registers in a Public Records Office and, if not willing to do this, that they should allow microfilming by any body for what ever purpose. A key figure in changing the Church of England's response was the Bishop of Ripon who was in favour of microfilming, because 'being by training a historian

[…] he felt that the more copies of these valuable documents there were, the better it would be' (Carey 1959, LPL Fisher Papers 226/130). The Church of England's decision was resisted by some who cited theological as well as economic objections. The Bishop of Bath and Wells, Dr Harold Bradfield, banned all vicars within his diocese from granting access to the LDS to microfilm parish registers. Firstly, on the grounds that anyone 'who has a complete microfilm of all the church registers in this country could presumably start up in business and make very big profits indeed' and secondly, because microfilms would be used 'in the revival of a rather primitive and not very desirable practice — the baptism of the dead' (NAS GRO5/1928).

The Bishops already perceived that custody over the registers principally lay not with themselves but with their parish priests, who owned it as part of their freehold. Nevertheless, despite some opposition, the opening up of the historical archive weakened the Church of England's custodial control over the records. In this way, their decision should be considered in light of greater local archival provision, which had expanded in the post-war period. Unlike the church, theological objections were less of an issue for civil authorities, who had already begun to take physical custody of some parish registers. Therefore, the bishops 'did not feel they could keep control over the purpose for which such microfilming may be used' (Nott 1965, Ramsay Papers 83/242). For archivists, the offer of obtaining a free microfilmed copy was tempting, as was the prospect of a there being a back-up copy securely deposited in the Granite Mountain Records Vault in Utah.[2] A microfilmed copy meant that the originals did

[2] The value of having a copy deposited in another country should not be overlooked. In several cases the GSU's own copies have also been used to replace damaged archives. In 1991 during the civil war between Croatia and Serbia, the archive of Osijek was bombed but the church records had been microfilmed and a copy from the Granite Mountain Records Vault was provided. A year later an arsonist set fire to the government office building on Rarotonga, Cook Islands in the Pacific. Again copies of the records were restored from GSU's microfilming project (Allen, Embry & Mehr 1995, pp.250, 255).

not need to be consulted and further copies could be made from the copied form; thereby lessening the damage from handling and increasing the possibility of multiple access (Serjeant 1964, Ramsay Papers 83/239).

The relationship between the GSU and British archives has continued into the era of digitization. Many volunteers for digitization projects are Mormons and in Scotland they have had particular success.[3] This was partly pre-established by their earlier success in microfilming, which was facilitated by the fact that, unlike in England and Wales, all the parish registers had been kept under central custody in the General Registry Office of Scotland following the Registration (Scotland) Act of 1854. In 1951, the Registrar General for Scotland, E. A. Hogan, with the approval of the Church of Scotland and the Lord President of the Court of Session, granted permission for the GSU to microfilm Scottish census records from 1841 to 1871 and old parish registers (i.e. those prior to 1855) in their custody (NAS GRO5/1928). This set a precedent for other institutions such as the General Registries of England and Ireland to follow suit. The Scottish Archive Network (SCAN) project, which ran from 1999 to 2004, can be seen as a digital successor to this partnership. SCAN sought to create a 'virtual search room for Scottish archives' providing online access to catalogues from fifty-two pubic and private institutions, a database of Scottish history, and online access to digitized wills and testaments registered in Scotland between 1500 and 1901. Along with the NAS, the GSU jointly provided one million pounds towards the scheme, a digital camera and imaging software (dCam), a full-time digitization supervisor and five volunteer missionary couples to work on digitizing. The project was the first to provide online access to

[3] This is partly a reflection of the Mormons' demographical origins. Scottish members in particular played a prominent part in the early formation of the GSU. In 1888, David MacKenzie of Salt Lake City and Alexander F. MacDonald of St George helped to found the Latter-Day Saints' Genealogical Bureau, a forerunner to the GSU. This was headed by John Nicholson and initially emphasized Scottish research (Allen, Embry & Mehr 1995, pp.34-38).

archival material in Britain and was 'believed to be the largest and fastest digitization operation from original archive documents anywhere in the world' (Mildren 2004). No doubt the GSU's experience in managing the workflow of microfilming projects helped. In his summary report of SCAN, Rob Mildren wrote in 2004 that:

> There will be a significant legacy for the archive community in the work SCAN has undertaken with the GSU. In solving the problems that all archives will face in planning conversion of original historical material, SCAN and GSU have developed solutions that can safely address the key issues of preservation and access. In addition the working relationship between the GSU and SCAN project has already led to the GSU committing more volunteer resources to digitise the Kirk Session records in Scotland. (Mildren 2004)

While Mildren's report notes the beneficial relationship with the GSU and the GSU's technical expertise, the GSU's religious motivations are not given; neither does the report explicitly indicate whether the GSU received copies of the digitized material, which it can be presumed they did — at least for preservation reasons.

The ongoing contribution, whether implicit or explicit, of the GSU to the development of archival practice across the world should not be underestimated or ignored. In recent years the TNA has embarked upon a series of public-private partnerships, such as that between the TNA and Ancestry.co.uk (Ancestry), the only site to have fully digitized all British censuses from 1841 to 1901. Ancestry is the British arm of the American company myfamily.com. Myfamily.com is part of The Generations Network, Inc., which also includes rootsweb.com, genealogy.com, Ancestry.com and the genealogy software company, Family Tree Maker (FFHS, 2008). Whilst Ancestry, (which first formed as a book publishing company in the mid-1980s), is not affiliated with the LDS, many employees

are Mormons and its headquarters are based in Provo, Utah (Martinson 2006).

Neither should the GSU's index work be overlooked. In 1930, the genealogist, Gilbert Harry Doane visited the 'very little known' library of the LDS in Salt Lake City, Utah. He wrote: 'I was amazed at what I found there — over five million names in a huge card file, which serves as an index to thousands of sheets of family records' (Doane 1937, p.138). By 1969 the GSU library held approximately six million family record sheets, filed alphabetically by father. An index to the family sheets was contained on three by five inch cards, which at this point contained approximately thirty-five million individual genealogical profiles and was growing by one million seven hundred and fifty thousand cards per year (Fudge & Gardner 1969, p.1). This index included all the names of people who had ordinances carried out on their behalf. It was used to check which ordinances had been carried out for whom and was designed to prevent duplication of temple work.

In the early 1960s the LDS experienced a shortage of names, particularly female names that could be used for temple ordinances. The rule that only one's own ancestors, or one's 'adopted' priest's ancestors could be used, was overturned and names were supplied that could be used by anyone by proxy. This was soon followed by the development of electronic processing of records and the introduction of the Genealogical Information and Name Tabulation (GIANT) computer programme which was first inaugurated in 1961. In 1969, Lyall J. Gardner stated that the last step 'in the GIANT System is the printing and updating of ordinance lists. Here the names of those persons who have not received the ordinances in the temples are printed on lists and sent to the temples to have the ordinances performed vicariously' (Gardner 1969, p.7). In this way, both the field of genealogical research was expanded and correspondingly, the potential capacity of temple

work (Allen, Embry & Mehr 1995, pp.177, 181). The GIANT system fed into the creation of the International Genealogical Index (IGI). This index is currently used by genealogists across the world and is free to access via the Internet (http://www.familysearch.org/eng/search/frameset_search.asp). The IGI, like the former card index, contains all the names of those for whom ordinances — baptisms and sealings — have been performed.

Often, because people are keen to celebrate the benefits of new technology, the influence of the LDS Church's microfilm programmes and its theological ambitions are frequently overlooked. In a recent news article, headlined, 'Internet turns Scottish clans into global tribe,' the power of the Internet to re-create lost communities was celebrated. When Richard Carmichael became the 30th chief of the flagging clan of Carmichael in 1981 he used the Mormon's records to contact 'lost' Carmichaels from around the world. Despite being told that 'the clans were finished because no one lived in the locality any more,' one hundred and fifty Carmichaels attended the clan gathering that year. Significantly, while the news article cited Carmichael as saying that the 'world wide web has made the global clan a reality,' it overlooked the fact that the World Wide Web was not in existence in 1981. Significantly, it was the GSU's microfilmed corpus and not the Internet that initially enabled the (re)construction of the clan (Fussell 2008).

The microfilming projects of the GSU represent an example of a post-custodial archive that pre-dates the Internet; archival material was no longer under 'house arrest' from one institution, but could be accessed in microfilm form by many from multiple centres.[4] In this way, microfilming

[4] The postcustodial archive is a distributed model in which archival material is no longer physically collected and maintained by a central archival authority but is kept by the original record creators, overseen managerially by an archival authority. For a definition see, Richard Pearce Moses, 'postcustodial theory of archives', *A Glossary of Archival and Records Terminology*, The Society of American Archivists website, <http://www.archivists.org/glossary/term_details.asp?DefinitionKey=327> [accessed 7 September 2008]

prefigures the digitization of material as it reproduced archival material from around the world. With microfilming many of the debates concerning digitization were rehearsed concerning access and preservation, rendition, and the ethics of re-use and loss of custodial control. Even though it was analogue, it still enabled the GSU to create a corpus of knowledge that could be indexed and triangulated — albeit to a limited extent. Perhaps more importantly it provided the social infrastructure and trusted relationships between archives and the GSU, as contracts concerning copyright and access — which in themselves represented a compromise of custodial control — were negotiated and upheld. In this way, the economic potential of copying information whereby it could be sold and re-used within different contexts was monitored. In addition, Mormon volunteers provided a sense of beneficial altruism and reduced labour costs. As the GSU gained a reputation in technical expertise, they became a useful factor in reducing the risks associated with introducing costly new technology.

The interaction between technology and humanity has no end; there will always be more ways to copy, index, use and access archives. The microfilms and digital images stored in the Granite Mountain Records Vault is just one out of numerous technological 'revealings' of the world's archives. But what is the significance of this? Within the world of archives, the GSU has heralded technological efficiency and within this, their theological underpinning has become partially invisible. In turn, the technology of the archive, as a kind of revealing of the past has perhaps been overlooked. It is perhaps in this sense then, that heritage professionals should look beyond the instrumental view of how to achieve archival access more efficiently, to consider other forms of causality at work in the technology of the archive. This includes a sense of Heideggerian indebtedness, a responsibility between the *hyle*, (the matter), the *eidos*, (the form) and the *telos*, to the creators, custodians and users of archives, all of which are co-

responsible for bringing into appearance the archive as revealed truth (Heidegger 1993, p.315).

Such technological revelation is not a natural fact but is controversial and political. This can be seen in the history of information technology used by the Nazi regime. The National Socialist's programme of race hygiene relied upon a vast source of genealogical information. This information was required not only to identify and classify human resources, but also to manage and to ultimately destroy individual lives. During the 1930s the Mormons were not the only ones interested in copying genealogical material; the German Bureau for Racial Research in Berlin had begun its own microfilming project.[5] By 1938 they had filmed seven thousand books of parish records. The GSU did contact German officials in 1939 to see if they could obtain copies of their microfilmed records but the outbreak of war disrupted their plans.

This work was part of a larger extensive eugenics programme, which was based on several decades of genealogical research. In the late 1920s, the physical anthropologist, Walter Scheidt and the genealogist, Willy Klenck constructed a method of compiling comprehensive lineage charts, (*Stammtafeln*), which coded each member of a parish and organised them into clans. The *Familienblatt-Methode* or family page method was developed in the 1930s by Josef Demleitner, Adolf Roth and Ernst Kopf, who were officials in the staff office of the agricultural department of the Reich. Using pre-printed family pages, which listed each nuclear family unit, books based on each parish were produced. Local clan books or *Ortssippenbuchen* were also produced. These were based on the parish registers and were printed. In 1937, through the co-operation of the organization for farmers and farm workers, who included the Association for Civil Genealogy and Peasant

5 Microfilm was used for many purposes during the Second World War and the Cold War. For example it was used as a method of transmission of letters through V-mail and for the transmission of state secrets (Auerbach & Gitelman 2007).

Heraldry, the National Socialist teachers' association and the racial-political office of the Nazi party, the Association for the study and cultivation of lineage was established (the *Arbeitsgemein-schaft fur Sippenforschung und Sippenpflege*). This organization continued in its production of *Ortsippenbuchen*, the purpose of which was to provide a 'genealogical inventory of the entire German People using all genealogical sources and to apply them systematically to the tasks of race policy and the cultivation of lineage' (Imhof 1980, un-paginated).

However, the painstaking compilation of *Ortsippenbuchen*, even supported through microfilming local records, was not efficient or speedy enough for the Nazi regime. What was needed was tabulation capacity on a large scale, not only to identify the racial percentage of perceived Jewishness within the national body, but also to continually correlate this genealogical information to living persons and current addresses. This was achieved through the International Business Machine (IBM)'s Hollerith punch card technology. However, it would be too simple lapse into technological determinism. One cannot assert that the Holocaust would not have happened without Hollerith punch card or microfilm technology, it would have proceeded anyway through other technologies 'with simple bullets, death marches, and massacres based on pen and paper persecution' (Black 2001, p.11). But neither should the role of technology be dismissed. It is the nature of technology to be transparent in its deadly efficiency or in its 'readiness-to-hand.' Edwin Black writes that 'while all understood the evil anti-Jewish process underway, virtually none comprehended the technology that was making it possible. The mechanics were less than a mystery, they were transparent' (Black 2001, p.111). The information technology went hand-in-hand with genealogical interest which ranged from a patriotic or historical interest in one's forebears to an abhorrent racist eugenicist programme.

What remains pertinent to this discussion is a sense of responsibility involved in the technologies of 'archivization' (Derrida 1998, p.17). Eric Ketelaar has expressed the difficulties involved in rights or access to archives:

> According to the Code of Ethics, laid down in 1996 by the International Council on Archives, archivists should protect the integrity of archives and should resist pressure from any source to manipulate evidence to conceal or distort facts. They also have to take into account the rights and interests of owners and data subjects and they must think of the user. The Code doesn't give a recipe how to balance these different interests. Do the interests of the living outweigh those of the dead? [...] Does the privacy of living persons override the importance of historical research and does the right of access give way to the right to forget? (Cited by Harris 2007, p.204)

The use of the archive reveals these conflicts of interest, between the rights of the dead and living, between what is personal information and a matter of public record. The LDS' use of archives goes beyond the archive as a 'natural' historical resource; for the GSU, death is defined in terms of eternal life and archival salvation becomes a manifestation of theological or ideological principles. The technology of remembrance is also controversial. There was a public outcry when it was discovered that Holocaust victims had been baptized by the LDS and in 1995 an agreement was signed between Jewish groups and the LDS to have all Holocaust victims removed from the IGI (Mokotoff 1995; Urbina 2003, p.51). In this way, protecting the integrity of archives has become more complex as archives are revealed and re-consigned in microfilm or digital forms and control of information becomes less tractable through the endless revealing of archival material. Technological access or custody is not neutral but is culturally situated and has particular affordance for certain groups. Humanity and technology cannot be separated from each other and both bear the burden of responsibility.

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